

**UNIVERSIDAD DE LA LAGUNA**

**A Genre–Analytic Study of English  
and Spanish Research Article Abstracts  
in the Experimental Social Sciences**

**Autor: Martín Martín, Pedro A.**

**Directores: Sally Burgess  
y José Gómez Soliño**

**Departamento de Filología Inglesa y Alemana**

Universidad de La Laguna

**A Genre-Analytic Study of English and Spanish  
Research Article Abstracts in the Experimental  
Social Sciences**

-----

**Estudio Textual Contrastivo (Español-Inglés) de los Resúmenes  
de los Artículos de Investigación de las Ciencias Sociales  
Experimentales**

TESIS DOCTORAL

Presentada por **D. Pedro A. Martín Martín**

Dirigida por la **Dra. Sally Burgess** y el **Dr. José Gómez Soliño**

VºBº: Los directores

Fdo.: Dr. José Gómez Soliño

Fdo.: Dra. Sally Burgess

Fdo.: El doctorando, D. Pedro A. Martín Martín

*To my parents, to  
Gledys, and to my children  
Daniel y Adrián*

## **Acknowledgements**

First and foremost, I would like to thank my supervisors, Dr. Sally Burgess and Dr. José Gómez Soliño, for providing me with such an interesting topic of research and, above all, for all the help they have given me throughout the whole process of this research, including their valuable suggestions and insightful comments.

I also wish to thank my colleagues and friends at the English Department for their encouragement and support.

Finally, I cannot offer adequate thanks to my family, Gledys, Daniel and Adrián. They have had to pay all the costs while I was immersed in this project. I want to express my special thanks to them for their patience and continuous support.

## **Acknowledgements**

First and foremost, I would like to thank my supervisors, Dr. Sally Burgess and Dr. José Gómez Soliño, for providing me with such an interesting topic of research and, above all, for all the help they have given me throughout the whole process of this research, including their valuable suggestions and insightful comments.

I also wish to thank my colleagues and friends at the English Department for their encouragement and support.

Finally, I cannot offer adequate thanks to my family, Gledys, Daniel and Adrián. They have had to pay all the costs while I was immersed in this project. I want to express my special thanks to them for their patience and continuous support.

## Table of Contents

### *Chapter 1: Introduction*

1.1. Research objectives.....	1
1.2. Research questions.....	4
1.3. Why a cross-linguistic genre-analytic approach to academic discourse?.....	7
1.4. Why an analysis of the RA abstract genre?.....	14
1.5. Why a genre-analysis of RA abstracts in the experimental social sciences disciplines?.....	17
1.6. Why a socio-pragmatic approach to the analysis of RA abstracts?.....	19
1.7. Approach and research design.....	21
1.8. Organization of this thesis.....	23

### *Chapter 2: The Contrastive Rhetoric Paradigm*

2.1. Introduction.....	25
2.2. The notion of ‘rhetoric’ in academic discourse.....	27
2.3. Kaplan’s (1966) paper and subsequent Contrastive Rhetoric research...28	
2.4. Development of CR studies.....	39
2.4.1. CR studies in Spanish.....	46
2.5. Academic writing: a homogeneous phenomenon?.....	47
2.6. CR and the present study.....	52

**Chapter 3: Discourse Community and Genre**

3.1. Introduction.....	56
3.2. The concept of ‘Discourse Community’ .....	57
3.2.1. The relationship between Discourse Community and Genre...61	
3.3. The concept of ‘Genre’ .....	63
3.3.1. The Systemic Functional Linguistics approach to genre.....66	
3.3.2. The “New Rhetoric” School approach to genre.....70	
3.3.3. The ESP approach to genre.....73	
3.4. Genre and the present study.....	77
3.4.1. The communicative function of the RA abstract genre.....79	

**Chapter 4: The Socio-Pragmatic Strategies Examined in this Study: An Overview**

4.0. Introduction.....	83
4.1. Rhetorical structure.....	84
4.1.1. The concept of ‘move’ as a unit of analysis.....86	
4.1.2. The identification of move boundaries.....91	
4.1.3. Rhetorical structure in relation to textual comprehension....92	
4.2. The strategy of hedging.....	93
4.2.1. What is a <i>hedge</i> ?.....95	
4.2.2. The origins of the term ‘hedge’ .....	96
4.2.3. More recent approaches to the concept of ‘hedge’.....97	
4.2.4. Hedging in scientific discourse.....105	
4.2.5. Towards a taxonomy of hedging devices.....109	
4.2.6. A proposal for a classification of hedges.....111	

4.3. Personal attribution in academic discourse.....	117
4.4. The rhetorical management of academic conflict.....	121
4.4.1. A taxonomy of rhetorical strategies to convey AC.....	125

*Chapter 5: Reseach Data and Methods*

5.0. Introduction.....	131
5.1. Composition of the corpus.....	132
5.2. The English corpus.....	133
5.3. The Spanish corpus.....	134
5.4. Procedures.....	136
5.4.1. Analysis of the rhetorical structure.....	137
5.4.2. Analysis of hedging devices.....	139
5.4.3. Analysis of first person pronouns.....	141
5.4.4. Analysis of academic conflict.....	142

*Chapter 6: Results*

6.0. Introduction.....	145
6.1. Quantitative analysis of length and sentence count.....	147
6.2. Analysis of the macro-structure of the abstracts.....	148
6.3. A move analysis of the structural units of the abstracts.....	151
6.3.1. Description of the Introduction unit.....	151
6.3.2. Description of the Methods unit.....	164
6.3.3. Description of the Results unit.....	169
6.3.4. Description of the Conclusion/Discussion unit.....	174



6.4. Analysis of hedges in the abstracts.....	181
6.4.1. Analysis of epistemic modality .....	181
6.4.2. Analysis of approximators.....	188
6.4.3. Analysis of the “strategy of camouflage” hedges.....	193
6.4.4. Analysis of first person forms of cognitive and performative verbs.....	194
6.4.5. Analysis of quality-emphasising adverbial expressions.....	195
6.4.6. Analysis of agentless passive and impersonal constructions.....	198
6.4.7. Analysis of impersonal active constructions.....	201
6.5. Grading of hedges according to the degree of protection.....	204
6.6. Analysis of first person pronouns in the abstracts.....	208
6.6.1. Semantic references and discourse functions of first person pronouns.....	210
6.7. Analysis of academic conflict in the abstracts.....	225

**Chapter 7: Conclusions**

7.0. Introduction.....	235
7.1. Summary of findings.....	236
7.1.1. Rhetorical structure.....	239
7.1.2. The use of hedging devices.....	241
7.1.3. The use of first person pronouns.....	243
7.1.4. The use of expressions of criticism.....	245

7.2. Interpretation of findings.....	246
7.3. Accounting for the differences and similarities.....	248
7.4. Refinements of the models of analysis used in this study.....	257
7.5. The politics of abstract writing.....	263
7.6. Pedagogical implications and applications.....	269
7.7. Suggestions for future research.....	271
<b>References.....</b>	<b>276</b>
APPENDIX A.....	311
APPENDIX B.....	377
APPENDIX C.....	450
APPENDIX D.....	513
APPENDIX E.....	580

# *Chapter 1*

---

## **Introduction**

### **1. 1. Research objectives**

This study explores the rhetorical preferences of English-speaking academics and Spanish writers of academic discourse. The main focus of the study is an investigation of the extent to which there is cross-linguistic variation in the research article (RA) abstract genre, in the disciplines of phonetics and psychology. Variation between the two groups of texts will be measured in terms of the rhetorical strategies used by writers in both languages to foreground their main knowledge claims and present themselves

as qualified discourse community members.

The rhetorical strategies which form the basis of the analysis are the following:

1. The structural units that constitute the macro-structure (van Dijk, 1977) of the abstracts and the moves (Swales, 1990) available to writers to convey a communicative intention in each of these structural units.

2. The hedging devices (Lakoff, 1972) used by writers in each of the rhetorical units of the abstracts to mitigate or modify, in some way, the illocutionary force of knowledge claims.

3. The use of first person pronouns.

4. The linguistic strategies used by writers to convey academic criticism.

This study builds on the socio-pragmatic assumption that in academic writing the choice of certain rhetorical strategies to convey knowledge claims is determined, to a large extent, by the social context in which texts are produced, i.e. the particular configuration of the social interaction between writers and readers within specific discourse communities. Clearly, these rhetorical options may vary across a number of dimensions, including language cultures.

Among the most salient of rhetorical options available to writers is text structure. Since Swales' (1981, 1990) ground-breaking analyses of RA introductions, there have been many studies that have examined the organizational patterns of the various sections of English RAs, not only across

disciplines, but also across languages and cultures (e.g. Gnutzmann & Oldenburg, 1991; Taylor & Chen, 1991; Duszak, 1994; Ahmad, 1997; Burgess, 1997, 2002; and Williams, 1999). Research on the underlying rhetorical structure of RAs has been extended to other academic genres, such as the RA abstract (e.g. Salager-Meyer, 1990; Gibson, 1993; Kaplan et al., 1994; Melander et al., 1997; Hyland, 2000; and Samraj, 2002a), master of science dissertations (Hopkins & Dudley-Evans, 1988), business letters and textbooks (Bhatia, 1993, 1998; Love, 2002; Santos, 2002), Ph. D. theses (Thompson, 2002; Bunton, 2002), and the letter of application (Henry & Roseberry, 2002). Indeed, the decision to place an element in a certain position in the text is a reflection of a series of socio-pragmatic influences. Rhetorical structure is, therefore, the first of the dimensions in terms of which the abstracts in this study are explored.

While analysing rhetorical structures has proved a revealing and useful way of examining academic texts, increasingly research in the field of academic writing is moving to the study of other aspects of discourse that reveal how writers respond to the interpersonal dimensions of academic writing. In the process of social interaction, which implies a negotiation between writers and readers, in order to gain community acceptance for a contribution to disciplinary knowledge, it becomes vital for writers to mitigate knowledge claims through the use of hedging devices (Myers, 1989; Salager-Meyer, 1994; Hyland, 1998, 2000). For this reason, hedges are the second focus of the comparative study presented here.

The hedging devices discussed highlight the persuasive function of abstracts. A second feature which also serves to point up strategies of persuasion and how they are variously achieved is the use first person pronouns and their role in the construction of an appropriate authorial self and of accepted participant relationships.

The final socio-pragmatic feature of academic discourse investigated in this study is one in which these issues of authorial self and of the establishment of appropriate relationships between participants are particularly salient. I refer to the issue of academic criticism, that is, how writers use rhetorical strategies which involve the criticism of members of their own discourse community in order to create a research space that allows for the presentation of new knowledge claims.

## **1. 2. Research questions**

Scientific discourse is increasingly internationalised. There is a strong tendency among researchers of national languages to adopt the discourse conventions of the international English-speaking academic community as a result of the tremendous influence that these norms exert on scientific communication worldwide. Notwithstanding, as contrastive rhetoric studies have shown, the particular configuration of different discourse communities (e.g. educational systems, intellectual styles, historical factors) may have an

influence on the construction of genres. In other words, the members of discourse communities shape the linguistic and rhetorical forms of genres, and these may vary cross-culturally. Considering that the international English-speaking community in the area of the experimental social sciences is different from the Spanish community, in terms of values, expectations and size, the following research question is posed:

1. To what extent is there rhetorical variation in the ways writers in English and Spanish work to establish themselves in their fields of knowledge?

If this study reveals that not all aspects of abstract writing in the specific disciplines of phonetics and psychology present cross-linguistic rhetorical variation in terms of the frequency of occurrence and types of rhetorical strategies used by writers in both languages, another question arises:

2. Which specific aspects of the strategies examined are subject to the restrictions of the writing conventions of the RA abstract genre, and therefore tend to be universal, and which aspects are governed by socio-cultural factors and are, therefore, culture-specific?

It is my contention in this study that scientific discourse does not imply the simple reporting of scientific facts with the primary aim of informing the reader about the content of research, but that there are a series of contextual and socio-pragmatic factors that constrain the choice of certain lexico-grammatical and rhetorical strategies in academic genres, which writers use in order to obtain membership acceptance. The recognition that academic writing is social interaction and that an essential function of RA abstracts is persuasive opens up a further research question:

3. What do the socio-pragmatic features examined in this study reveal about how writers in both languages rhetorically work to position themselves within their discourse communities in order to gain acceptance for knowledge claims, and convince their peers that they are competent members of the disciplinary community?

With regard to the explanation of the differences (and similarities) encountered in this study, a final question remains to be explored:

4. Are these differences attributable to historical and cultural factors, that is, the language background of the writers, or rather to socio-pragmatic factors, including the contexts in which texts are produced?



While the first two questions can, to some extent, be answered in quantitative terms, questions 3 and 4 clearly demand a qualitative approach.

### **1. 3. Why a cross-linguistic genre-analytic approach to academic discourse?**

Scientists in academic discourse communities are characterised by the wish to communicate new knowledge to the other members of that community. This communication can take place through various channels such as the presentation of papers at conferences, participation in seminars or even informal media such as e-mail and list servers. A major channel that the members of an academic community use to report the results of their research is publication of research articles in scientific journals. Although the new media have had an enormous impact on academic communication, the RA still holds sway and it is thus an important focus for research into academic discourse.

Spanish researchers who are non-native speakers of English, although they may enjoy a good deal of success when publishing in Spanish-language journals, generally find publication in international English-language journals an additional hurdle to overcome. Unfortunately it is an inevitable hurdle. Nowadays, there is no doubt that English has become the world's major

language of international scientific communication. Smith (1983), for example, discusses several factors that appear to have caused English to become the most frequent language used internationally in academic settings, among them power, political influence and technological advancement of the countries which use the English language natively, or the fact that much of world scientific communication either originates from a country where English is a first language or is directed to such an audience. The dominance of English has ultimately led to the situation where the editorial boards of many Spanish academic journals require that research articles are accompanied by abstracts in English. Similarly, to be up-to-date with the most recent literature in their fields, Spanish scholars need to be acquainted with the latest research published in English.

The fact of the matter is that those Spanish researchers who wish to obtain international recognition through their publications increasingly find themselves compelled to write in English. At the same time, most Spanish researchers realise that the help of translators falls short of their expectations, since it is difficult to find a translator equally familiar with both the discourse conventions of academic writing in English and the particular field of research. An alternative to translation for Spanish researchers who seek to publish in English is achieving a competence in that language which will allow them to write their academic papers (including the accompanying abstracts) in English. Achieving competence in academic writing implies not only the learning of lexico-grammatical features, but also the rhetorical conventions

which characterise scientific discourse in specific disciplines. However, few Spanish academic institutions provide novice scholars and postgraduate students with any kind of linguistic support, let alone specific instruction on the rhetorical conventions of academic discourse in English.

It might be argued that the conventions of academic discourse in fact cross linguistic and cultural boundaries. Widdowson (1979), for example, has propounded the idea of a universal scientific discourse which is acquired through education:

Scientific exposition is structured according to certain patterns of rhetorical organization which, with some tolerance for individual stylistic variation, imposes a conformity on members of the scientific community no matter what language they happen to use. (Widdowson, 1979:61)

Notwithstanding, since Kaplan's (1966) initial work on contrastive rhetoric (CR), a large number of studies in this field (see, for example, Clyne, 1987; Connor, 1996; Hinds, 1987; Ventola & Mauranen, 1996, among many others) have revealed that textual organization of academic discourse is governed by socio-cultural factors and that these in turn produce rhetorical variation across cultures. While the early work in CR saw these differences rather simplistically as being related to the first languages of the speakers themselves, more recent studies (see, for example, Leki, 1991; Connor, 1996) see differences in the expectations of the discourse communities as the

primary reason for cross-cultural differences in writing styles. Lack of awareness of such cross-cultural differences in text structures and reader expectations is believed to be the main cause of non-English speaking background writers' relative lack of success in the international community. Ventola and Mauranen (1996) have noted that very often, if an article is not written in a way that has become standard in its field, it may be rejected even though the research itself may be relevant. Clyne (1991) has also pointed out that editors of international journals have the tendency to react negatively when encountering discorsal structures which do not adhere to the norms of academic writing in English. Consequently, it is not surprising that, according to Swales (1990), only 20% of the research papers published in international journals come from countries where English is not the national or official language.

Although there have been important initiatives among genre theorists and English for Academic Purposes (EAP) practitioners in English-speaking universities to provide linguistic support to the non-native English speaking student who needs to adopt the discourse conventions which characterise academic genres<sup>1</sup>, in most countries where English is not the national or

---

1

In most institutions of higher education in the English-speaking countries two main types of courses in EAP are offered to overseas students who want to improve their English for study purposes. The first type is called "pre-sessional", and has the aim of preparing students to study at university before the main course begins. These courses give students practice in communicating in academic English, that is in writing essays, reports and other academic

official language, EAP is referred to as Technical English, and the courses focus almost exclusively on reading and are offered only in the first years of study. Moreover, in this type of situation there is a general lack of EAP courses aimed at teaching post-graduate students and novice academic staff the conventions of English academic writing in order to help them publish and communicate their research work in English. This is, for example, the case of Spanish academic specialists in psychology. It is mainly by imitating the academic style and genre strategies of already published authors who have achieved status and success within their disciplinary communities that second language students and novice writers outside the English-speaking context learn how to use these rhetorical practices.

Notwithstanding, many researchers in the Systemic Functional Linguistics and the ESP traditions believe that genre competence does not merely imply the imitation of given textual styles, but that explicit formal instruction in rhetorical organization and linguistic descriptions of academic texts could be helpful. Freedman and Medway (1994), Berkenkotter and Huckin (1995), Paltridge (1997) and Hyland (2000), among others, take a different view in which novice writers must acquire genre competence through a process of socialization with the other members of the disciplinary community rather than through explicit instruction.

---

genres, reading academic texts, and making academic presentations. The other type of EAP course is called “in-sessional” and is intended for mainly postgraduate students who are already at English-speaking universities and who want help with their academic English.

Within the ESP tradition, descriptions of genres are seen as useful discourse models for EAP and professional writing instruction. Since the seminal work on RA introductions by Swales (1981, and then revised and amplified in 1990) there have been a large number of studies of the different sections of the scientific article (e.g. Hopkins & Dudley-Evans, 1988; Brett, 1994; Holmes, 1997; Williams, 1999, among others). This approach has been extended to other academic genres such as plenary lectures and poster session discussions (Shalom, 1993), the graduate seminar presentation (Weissberg, 1993), conference abstracts (Berkenkotter & Huckin, 1995), Ph. D. theses (Thompson, 2002), and occluded genres<sup>2</sup>, such as submission letters (Swales, 1996). Rather less attention has been paid to analysing the discourse features of languages other than English although, over the last decade, there has been an increasing number of cross-cultural studies comparing English academic writing to other languages such as Chinese (e.g. Taylor & Chen, 1991), Finnish (e.g. Mauranen, 1993), Czech (e.g. Cmejrková, 1996), Polish (e.g. Duszak, 1994, 1997), and many others. Connor (1996: 52) cites a few studies on contrastive rhetoric produced by Spanish speakers (Santiago, 1970; Santana-Seda, 1974), but it is only recently that researchers in contrastive studies of English and Spanish academic genres from different disciplines are

---

2

The academic genres that Swales (1996) terms “occluded genres” are those genres which are typically hidden from the public gaze, that is, those which support the research publication but are not themselves part of the research record, such as correspondence between authors and editors, request letters and research proposal.

also showing an interest in this area, as can be seen in the work by Valero-Garcés (1996), Moreno (1997, 1998), Burgess (1997, 2002) and Salager-Meyer et al. (2003).

It is in this context that the present study attempts to make a contribution to genre analytic research into academic discourse. In this study, I attempt to expand this area of research by analysing the rhetorical strategies that writers use in English to construct the RA abstract genre in the disciplines of phonetics and psychology.

From an alternative perspective, which does not privilege English academic discourse, this study also investigates the rhetorical preferences of writers in Spanish, with the aim of providing similar insights to those obtained for English academic writing for writing in Spanish. It is thus hoped that postgraduate students and novice writers who will be working primarily with the Spanish disciplinary communities, may also have available to them a descriptive account of abstract writing in the fields of psychology and phonetics, especially if we take into account that few if any doctoral programmes in the Spanish universities (and in particular the disciplines of phonetics and psychology) include modules on the preparation of academic texts.

## **1. 4. Why an analysis of the RA abstract genre?**

The RA abstract is a particular genre which has always aroused great interest due to the important role it fulfills for the scientific community. Salager-Meyer (1990), Bhatia (1993) and Gibson (1993), among others, regard RA abstracts as independent genres with the explicit function of providing a summary of the content of the associated paper, thus indicating to readers whether the full text merits their further attention. Hyland (2000) argues that the main function of abstracts is not merely to inform the reader of the content of an article, but to highlight important information and present the main knowledge claims. All this is done in a bid to persuade the audience to read the whole article.

In the process of publishing the results of research, abstracts constitute, after the paper's title, the readers' first encounter with the text, and it is here that writers have to show they have mastered the conventions (the textual organization and other rhetorical practices) that are favoured by the members of a specific disciplinary group. It is for this reason that abstracts can be seen as 'a rich source of interactional features that allow us to see how individuals work to position themselves within their communities' (Hyland, 2000:63). The value of abstracts is evidenced by the fact that almost without exception scientific journals and conferences require an abstract from contributors.



Although there are a number of manuals offering advice on how to write abstracts (see, for example, Cremmins, 1982; Day, 1989; Pinto-Molina, 1992; Booth, 1993, Norman, 1999) and international organizations<sup>3</sup> (ISO, ANSI, etc.) which give recommendations about how abstracts should be presented, the focus is usually on stylistic aspects, such as the avoidance of redundancy, telegraphic style, and ambiguous terms. It is only recently that we have seen genre-analytic approaches to the study of pragmatic features of abstracts in specific disciplines such as those of Salager-Meyer (1990) and Anderson and Maclean (1997) on the rhetorical structure of medical English abstracts. Gibson (1993) is also a landmark in the field. Gibson's study not only provides an extremely complete descriptive account of the genre, but shows how certain linguistic variables affect the perceived success of abstracts in the field of information and library science. Kaplan et al. (1994) analysed the textual organization and other linguistic features which characterised a group of abstracts submitted to an international conference on applied linguistics. Santos (1996), also in applied linguistics, examined research paper abstracts in terms of their textual organization. Hyland (2000) carried out a move analysis of abstracts from a wide range of disciplines and described the rhetorical features used by the writers to show the value of their research and to display the fact that they were competent members of the

---

<sup>3</sup> Pinto-Molina (1992: 455-561), for example, includes the norms of the most relevant international and national (e.g. Spanish) organizations regarding the presentation of abstracts.

discourse community. Samraj (2002a) compared several textual features in abstracts written in two related sub-disciplines of ecology and biology, revealing the influence of genre norms and disciplinary preferences on discourse structure.

Despite the importance of abstract writing for non English-speaking background academics, the studies of this genre have only described the textual features of abstracts written in English, and have tended to privilege publications in mainstream US and UK-based journals. Rhetorical conventions acquired for abstract writing in other cultures have received less attention, with a few exceptions such as Melander et al. (1997), who examined variability in rhetorical features of RA abstracts across different language backgrounds in three disciplinary fields (biology, medicine and linguistics). The texts were produced by Swedish academics writing in English and in Swedish, and North Americans writing in English.

In this study, I attempt to redress this imbalance through a comparative study of abstracts written in English for international scientific journals and abstracts written in Spanish and published in Spanish journals.

## **1. 5. Why a genre analysis of RA abstracts in the experimental social sciences disciplines?**

There has already been a number of studies that have established the existence of generic variation across disciplinary boundaries (e.g. Gnutzmann & Oldenburg, 1991; Bhatia, 1998; Fortanet et al., 1998). As regards the RA abstract genre, Hyland (2000: 70) has noted that there is considerable disciplinary variation in move structuring, which according to this author, suggests that “credibility, significance and persuasion are community-specific matters”. Therefore, the sample here was restricted to the field of the social sciences.

The main reason for choosing this area is that most of the studies carried out so far have largely focused on abstracts from the hard or applied sciences. This is perhaps unfortunate since the needs of academics seeking to publish their work in the social sciences are at least as great as those of their colleagues in the hard disciplines. Another reason is that my own field is linguistics and, therefore, I am more familiar with the rhetorical features of texts from the social sciences. However, even within the social sciences there is a number of subdisciplines, therefore the level of specificity must be regarded as higher.

In this study I have chosen two related disciplines representative of the experimental social sciences: phonetics and psychology, mainly motivated

by the fact that in my own university many researchers in these two disciplines very frequently find themselves at a loss when it comes to the writing of research articles (and the accompanying abstracts) in English, since there is a lack of specialised linguistic support. Moreover, to my knowledge, no genre-analytic research on abstracts in these particular disciplines has been carried out so far.

A final reason for my choice is that, in a cross-linguistic study, such as the one reported in this thesis which attempts to account for rhetorical variation, it is assumed that there is more cross-cultural variation in the social sciences than in the hard sciences (e.g. physics and mathematics). Clyne (1987), in his comparison of German and English academic texts, suggests that in some disciplines (such as mathematics and engineering) German and English textual patterns are similar to each other, while in others German texts seem to follow distinct patterns. Gnutzmann and Oldenburg (1991) note that the hard sciences present a higher degree of theory or abstraction and therefore the rhetorical features tend to be more internationalised. This has also been sustained by Becher (1989: 156), who points out that there is a high level of convergence among the hard knowledge disciplines in which their practitioners are characterised by having “common modes of discourse and universal agreement on the notions of proof and definition and on the criteria for acceptability”. On the other hand, as regards the social sciences and humanities Becher reports a lower shared set of disciplinary values. A further justification for studying social sciences RA abstracts is that this will enable

us to determine how far the rhetorical strategies observed in the hard knowledge sciences are generalizable to the experimental social sciences disciplines.

This genre-analytic study of RA abstracts across English and Spanish in the experimental social sciences disciplines also has a pedagogical motivation as ultimately the data obtained will inform the design of teaching materials aimed at non-native speakers of English in this field, and more particularly at Spanish-speaking academics, who, almost without exception, find themselves faced with the sometimes daunting task of producing abstracts in English.

## **1. 6. Why a socio-pragmatic approach to the analysis of RA abstracts?**

One of the properties distinguishing scientific from non-scientific texts is their supposed avoidance of subjectivity. As Duszak (1997) has noted, scientific texts belong to a general category of intellectual discourse and show a relatively high degree of formalization specific to scientific communication in a given discipline. She also points out that the discipline-specific discourse features are in turn influenced by the more general rhetoric of science. This conception of scientific discourse has led to the general assumption that

academic writing merely consists in the objective reporting of research findings to the other member of the discourse community. Indeed, many scientific writing manuals and ESP teachers advocate the avoidance of personal involvement in academic texts.

Recent research, however, (see, for example, Miller, 1984; Bazerman, 1988; Bizzell, 1992; Freedman & Medaway, 1994) has shown that the close connection between text and the contexts in which they are produced is as relevant to academic text as it is to other domains of discourse. As Hyland (2000) observes, the context of scientific communication (the setting, the participants, their knowledge, beliefs and attitudes) may influence the forms of discourse and constitute that aspect of linguistic analysis that belongs to the domain shared by pragmatics and sociolinguistics. Duszak (1997) also remarks that academic texts reflect the social self-image of the writers and their perception of the relationship that they have with the audience.

In this study, sharing the view of other researchers such as Bazerman (1988), Myers (1989), Berkenkotter & Huckin (1995), Burgess (1997, 2002), Duszak (1997), Salager-Meyer (1999, 2001) and Hyland (2000), among others, academic writing is primarily seen as a socio-pragmatic act which involves an interaction between writers and readers that exerts an influence on the rhetorical choices that writers make in order to construct their texts. From this perspective, this study attempts to offer an account of how the rhetorical practices that academics in English and Spanish use when writing abstracts, in the area of the experimental social sciences, are a reflection of

the social relations between writers and readers within different discourse communities and different cultures.

## **1. 7. Approach and research design**

The approach to academic discourse analysis in this study does not draw from any one theory of language. It is situated in the genre analysis research tradition which is applied in nature, i.e. it requires minimum support from linguistic theory and focuses maximally on the description of conventional aspects of language use in institutionalised academic and professional settings (Swales, 1990; Bhatia, 1993; 1997). Genre analysis combines socio-cultural and psycholinguistic aspects of text construction and interpretation in order to answer the question “why do members of a specific disciplinary community use the language the way they do?” By offering a functional explanation of the way expert users of language manipulate generic conventions to achieve a variety of social goals associated with their specialist disciplines, it focuses attention on the variation in language use by members of various disciplinary cultures. The main motivation of genre-based studies has been to arrive at significant form-function correlations which can be used in the context of language teaching for specific purposes.

In the study of written discourse, we may adopt a process-oriented approach which relies on interviews with authors and observations of the

composing process, or a textual approach which focuses on the analysis of textual features (i.e. micro-linguistic analysis or larger units of texts). Although this study does not provide empirical evidence of writers' cognitive processes, it is implicitly concerned with the interactional behaviour patterns of the people (writers/readers) communicating through texts, that is, the linguistic and rhetorical structures analysed are interpreted pragmatically in the light of their interactional social contexts. In this regard, although this study is primarily text-oriented, it also takes into consideration cognitive and social aspects of academic writing, since it attempts to account for writer's intentions.

The approach in this study has been descriptive and predominantly qualitative. It does not attempt to support a hypothesis about the rhetorical differences between the two languages in exact quantitative terms, but rather attempts to analyse and describe comparatively the textual features observed in both groups of texts, in order to then postulate rhetorical characteristics or tendencies suggested by the results of the analyses. For this reason, in some parts of this study, I have been content to express the results of the analyses in raw figures, seeing no justification for processing these figures statistically, a practice which is customary in this field (see, for example, all of Hyland's work; Taylor & Chen, 1991; Mauranen, 1993a, 1993b; Duszak, 1994; ).

A final methodological aspect refers to the issue raised, for example, by Crookes (1986) of validating analyses to ensure they are not simply products of the analyst's intuition. It must be noted that the analyses of



rhetorico-pragmatic features involve a degree of subjectivity that is perhaps unavoidable. In order to enhance the reliability of my own findings, the data were analysed and then compared with the analyses of a representative sample of the Spanish texts carried out by two Spanish independent co-analysts, one of them a member of the English department and the other of the Psychology department at my university. Similarly, a representative sample of the English texts were analysed by a native speaker of English who is a specialist in the area of Linguistics and a second native English-speaker with expertise in Psychology. However, it must be mentioned that textual interpretation can never approach absolute precision (Taylor & Chen, 1991: 324).

## **1. 8. Organization of this thesis**

The content of the remaining chapters that make up this thesis is briefly described as follows: Chapters 2, 3 and 4 constitute the framework on which this study is based. Chapter 2, specifically, provides a review of the expanding paradigm of Contrastive Rhetoric (CR), which since Kaplan's (1966) pioneering work has sought to provide evidence for cross-cultural variation in academic writing. Chapter 3 discusses the concept of genre and the role of the discourse community in the framing of academic genres.

Genre-analysis, as a descriptive tool, is also discussed in this chapter, as well as how this concept has developed in both EAP (English for Academic Purposes) research and pedagogy. Chapter 4, introduces and surveys each of the socio-pragmatic strategies which have been examined in this study. Chapter 5 gives account of the composition of the corpus and the procedures followed in the process of analysis, while Chapter 6 reports on the results obtained from the analyses of the rhetorical structure, hedging devices, the use of first person pronouns and the expressions of criticism in the abstracts. Chapter 7 presents the final conclusions drawn from the analyses of the texts. Furthermore, it discusses the possible explanations for rhetorical variation (and absence of rhetorical variation) in the texts, and the pedagogical implications of this study. Finally, some suggestions for future research are provided.

## *Chapter 2*

---

# **The Contrastive Rhetoric Paradigm**

### **2. 1. Introduction**

Studies of cross-cultural rhetorical variation, and how the influence of the L1 may affect the way individuals express themselves in an L2 are often labelled “Contrastive Rhetoric research”. As the term suggests, Contrastive Rhetoric (CR) has been influenced, to some extent, by Contrastive Analysis (CA), the branch of applied linguistics which has traditionally been concerned with the analysis of pairs of languages at the levels of phonology, grammar and lexis (cf. James, 1980). A prime concern of CA was to establish aspects

of the L1 that might result in interference or negative transfer to the L2. The view was that these phonological, syntactic and lexical features should in turn inform syllabus design. Contrastive Rhetoric, at least in its initial stages (see, Connor, 1996), built on the CA tradition, while extending the approach beyond the sentence level to the paragraph and the whole text.

Robert Kaplan was, in 1966, the first to articulate the notion of CR as a reaction to this narrowly sentence-bound perspective on which English as a Second Language (ESL) instruction was based at that time. Kaplan's (1966) observed that although the existence of cultural variation was a factor which had been recognised in ESL teaching at the level of the sentence (i.e. grammar, vocabulary and sentence structure), foreign students who had mastered syntactic structures still struggled to produce adequate term papers, theses or dissertations. Some grammatically correct ESL texts still seemed to violate native English reader expectations at the discourse level, since native speakers of different languages produced what came to be regarded characteristic violations of the discourse norms of English.

While there is still a good deal of controversy surrounding the specific role of the L1 in conditioning discourse-level patterns, there is little doubt that CR continues to provide a research framework and a number of insights that prove valuable to ESP and EAP teachers and materials designers.

## 2. 2. The notion of 'rhetoric' in academic discourse

For many people, the term 'rhetoric' *per se* has negative connotations because of its connection with political discourse in classical Greece. In the last few decades there has been a lively revival of interest in rhetoric among linguists. This new wave of interest has seen the taking up of the notion of rhetoric as persuasion and the stripping away of pejorative connotations. The study of rhetoric has been rediscovered not only as a means of improving efficiency in verbal presentation, but as an analytical tool that can be used for uncovering the structure of texts across languages and disciplines (Mauranen, 1993b: 20).

Other rhetoricians have developed theories which are especially relevant for those interested in second language writing. Connor (1996: 67) cites, for example, Toulmin's (1958) model for argumentative writing, and Perelman's (1982) "new rhetoric", which focuses on the achievement of particular effects on the audience. This emphasis on audience, as Connor notes, has been particularly influential in Contrastive Rhetoric research.

Rhetoric, in the framework used in the present study, is understood as persuasive written discourse. Purves (1988: 9), for example, defines *rhetoric* as "the choice of linguistic and structural aspects of discourse-chosen to produce an effect on the audience". Rhetorical strategies thus consist of the choices that writers make in order to convince readers of their

claims. This notion takes into account the participants in persuasive communication: the writer with intentions, the audience on whom the effect is achieved, and the discourse which acts as the medium of persuasion. We could say then that rhetoric is language use with the intention to persuade or with an intention to convince. However, as Mauranen (1993b) points out, the problem with intention is that writers' rhetorical intentions are not accessible to investigation outside their expression in the text.

Clearly the abstracts that make up the corpus used in this study are not simply instances of expository prose, but texts with a profoundly persuasive function. As was stated above, the writers of abstracts must persuade editors, peer reviewers and ultimately readers to accept the claims they make. We should thus expect them to exhibit a range of rhetorical strategies that serve this end.

### **2. 3. Kaplan's (1966) paper and subsequent Contrastive Rhetoric research**

As stated earlier, Kaplan's (1966) paper can be seen as a reaction to formalist approaches to composition teaching, based on the avoidance of systematic errors. In Kaplan's terms the main problem that overseas students in the United States universities experienced arose because they were

employing a rhetoric and indeed a sequence of thought which violated the expectations of the English-speaking reader. The thought patterns which native speakers and readers of English appeared to expect as an integral part of their communication was a sequence that was, according to Kaplan, dominantly linear in its development. Kaplan (1966) describes a typical English expository paragraph beginning with a topic statement which is then followed by a series of subdivisions of that topic statement, each in turn supported by examples and illustrations. These topic statements each relate explicitly to the central idea of the essay or paper. An alternative paragraph structure available to the English-speaking writer is one in which a series of examples is provided and then followed by a final topic statement. Kaplan believes that these two types of paragraph development represent the common *inductive* and *deductive* reasoning which the native English reader expects to be an integral part of any formal communication.

In order to compare English paragraph development with paragraph development in other languages, Kaplan analysed some 600 essays written in English by foreign students in the United States. On the basis of these analyses he identified four kinds of discourse structures that contrasted with English linearity (see Figure 1), each of which he related with the following language groups:

- (1) Semitic languages, characterised by a complex series of parallel constructions, with the first idea completed in the second part.
- (2) Oriental languages, characterised by circularity, with the topic

looked at from different tangents.

(3) Romance languages, characterised by freedom to digress and the introduction of “extraneous” material.

(4) Russian, similar to (3), but with different lengths, and parenthetical amplifications of subordinate elements.

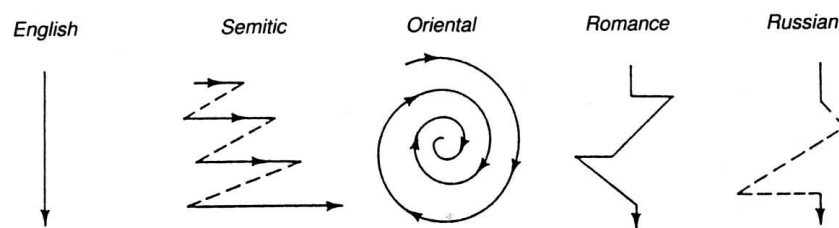


Figure 1. Diagram on cross-cultural differences in paragraph organization in Kaplan's (1966) study on cultural thought patterns.

Following this typology, Clyne (1987) has classified the German language as an instance of (3) and (4). He gives an extreme example of this type of discourse in which there are not only digressions but also digressions within digressions. Every time the writer returns to the main line of argument,



he has to recapitulate it up to the point before the last digression, resulting in much repetition. Furthermore, Clyne (1987: 214) claims that the issue of linearity versus digressiveness cannot be completely separated from grammatical considerations, that is, differences in the language structure may cause contrasts in the discourse structure. Thus he sees German participial clauses and left-branching constructions as contributing to digressiveness. Although Clyne acknowledges the importance of such features, he does not believe that they are decisive. He points to the fact that the tendency towards digressiveness in texts by French speakers, Italians and Russians, being speakers of languages structured very differently to German, suggests that it might be cultural determinants rather than linguistic typologies that underlie degree of linearity in discourse.

As regards Kaplan's description of Oriental languages, Mohan and Lo (1985) have disputed Kaplan's claim of the importance of indirectness in Chinese. They argue that both classical and modern Chinese styles taught at schools today favour a direct rather than an indirect expressive mode. These authors provide evidence of linearity from both classical and modern Chinese sources which, they claim, indicate very little difference between the discourse structure of English and Chinese. Furthermore, Hinds (1987) has also shown that there are significant differences in writing among related languages such as Japanese, Chinese, Thai, and Korean, which Kaplan had included in a single Oriental group. Clyne (1987) too is unhappy with the rough grouping of disparate languages used by Kaplan and claims that the argument style of

Saxonic (English) has less in common with Teutonic (German) than it does with Nipponic (Japanese). This suggests that rhetorical variation may reflect different intellectual styles or academic conventions learned in a specific culture.

Another criticism of Kaplan's (1966) study is aimed at the pedagogical applications he saw as arising from it. He regarded the culture-specific patterns of organization as a negative influence on ESL writing. To combat these, he recommended that ESL students learning to write essays in an Anglo-American style should study model compositions constructed in the linear fashion thought typical of writing in English. Although Kaplan's intentions were undoubtedly very worthy, some researchers have criticised his approach on the grounds that it is excessively prescriptive (see, for example, Leki, 1991), and ethnocentric (see, for example, Melander, 1998), since textual patterns other than those produced by native speakers of English are effectively treated as anomalous rather than simply different.

A third motive for criticism is at the level of theory. Martin (1992) suggests that Kaplan fails to ground his work in a broader theoretical context of ESL writing. This lack of a developed theoretical base is also a target of criticism for Purves (1988). Kaplan himself, in a later (1988) article, points to the need for theory formulation within Contrastive Rhetoric. This theoretical void is explained by Martin (1992) as a consequence of the newness of the field, the lack of communication among researchers working on CR projects, and a lack of agreement about what exactly constitutes CR research.

According to Martin (1992: 11), much of the CR research done in the past three decades is not easily available because it is in unpublished form, often consisting of papers presented at scholarly conferences, unpublished master's theses and doctoral dissertations. He also observes that even some published work is relatively inaccessible since it is published in local non-English journals.

Kaplan's (1966) early study is also innovative since it reflects his interest in rhetoric and logic, interests which typically lay outside the scope of concerns of most ESL professionals whose training was primarily in linguistics (Connor, 1996). Kaplan maintained that logic and rhetoric are interdependent as well as culture specific:

“Logic (...) which is the basis of rhetoric, is evolved out of culture; it is not universal. Rhetoric, then, is not universal either, but varies from culture to culture and even from time to time within a given culture” (Kaplan, 1966: 2).

His view was based on the Sapir-Whorf hypothesis that suggests that linguistic structures condition thought and that it is this which accounts for discourse variation across cultures. While Kaplan was effectively building on what Connor (1996) terms “the weak version” of the hypothesis (i.e. language is influential but not a determining factor), he has nevertheless been much criticised for his reliance on Sapir and Whorf.

Martin (1992) draws a distinction between two conceptualizations of CR, “narrow” and “broad”, that can be seen as parallels to the weak and strong versions of the Sapir-Whorf hypothesis. A narrow definition of CR would be one that postulates that the rhetorical organization of L2 written texts is the result of the transfer of L1 rhetorical organization, that there are a finite number of rhetorical forms for any language, and that these forms are discoverable by analysis of written texts. It is implied that the native language rhetoric of the writer determines the rhetorical organization of the second language texts he or she writes. This traditional notion of CR, as Martin (1992) notes, was readily translated into an approach for the teaching of writing that applied contrastive analysis techniques similar to those used for sentence-level error to discourse-level issues, that is, the negative transfer from the L1 accounted for all error. The broader view of CR would postulate that L1 rhetorical norms and culturally determined linguistic strategies, while undoubtedly making an impact on the shape of L2 texts, do not necessarily act alone. It has been this broad version that has achieved wider acceptance among researchers in the CR paradigm (Martin, 1992).

Söter (1988), for example, argues that the ways in which we express thought in writing are very strongly influenced by our experiences with discourse generally and written text specifically, and the related conventions that govern each of these within our own social and cultural contexts. Other authors such as Mohan and Lo (1985) attribute organizational problems in English academic writing by L2 learners to developmental factors rather than

to interference from the first language. They argue that ability in rhetorical organization develops late even among writers who are native speakers of English and, because of this, ability is derived especially from formal education, that is, previous educational experience may facilitate or retard the development of academic writing ability. Leki (1991) argues that most students come to L2 writing with some previously learned discourse schemata which is the result of their experience of school. As he (Leki, 1991: 124) puts it: “writing, for most school children, is nearly always school sponsored and inevitably, therefore, reflects the culture of the school system and reproduces culturally preferred discourse styles”. Purves (1988) also sees the role of school as the primary agent in the transmission of cultural, rhetorical and stylistic norms<sup>1</sup>.

Clyne (1997), Mauranen (1993a, 1993b) and Golebiowski (1998), among others, also consider that intercultural variation in the rhetorical preferences of writers may be promoted by the educational systems, and other factors such as the varying intellectual styles and attitudes to knowledge and content rather than the structure of a language.

Hinds (1990), while pointing to socio-cultural, historical, socio-political and situational constraints as the source of rhetorical differences

---

<sup>1</sup> Kaplan, in one of his more recent publications, (1988: 290) counters that this is a reductionist position, since educational systems “do not serve as the intellectual frontline of most cultures, rather, they reflect thought as they reflect more deeply embedded cultural preferences”.

across languages, proposes in his (1987) critique of Kaplan's first study a new typology of language based on speaker/writer responsibility as opposed to listener/reader responsibility. Hinds contends that in some languages, such as English, the person primarily responsible for effective communication is the speaker/writer while in other languages, such as Japanese or German (see, Clyne, 1987), it is the responsibility of the listener/reader to understand what it is that the speaker or writer had intended to say. In such reader-responsibility languages writing that is too explicit is not valued. Hinds (1990: 90) terms reader-responsibility styles as "quasi-inductive", since they involve "delayed introduction of purpose", with the topic implied, rather than stated. Hinds goes on to argue that English-speaking writers and readers are only familiar with strictly deductive (i.e. the thesis statement in the initial position) and inductive (i.e. the thesis statement in the final position) organizational patterns, and if they find that a text does not conform to one of the two patterns they naturally assume that the essay is arranged in an inductive style, or simply see it as lacking in coherence.

Following Hinds's (1987) typology of languages, Connor (1996) characterises Finnish as a reader-responsibility language, whose text linguistic features such as topic development are closer to German than to English writing. She attributes the similarities between Finnish and German discourse patterns to the influence of the German academic traditions on Finnish schools and universities. In this regard, Connor argues that the unique structure of Finnish (a non-Indo-European language) does not contribute to

Finnish rhetoric, and that, as with Japanese, the Whorfian hypothesis is insufficient to explain cross-linguistic rhetorical variation. She suggests that rhetorical differences do not reflect different patterns of thinking, but rather, that differences may reflect different writing conventions that are learned in the culture. Furthermore, Connor takes issue with Kaplan's first study for operating on the assumption that the rhetorical organization of expository prose is culturally-determined without analysing the reasons that give rise to the different writing styles associated with a specific culture.

Many contrastive studies, as noted above, have focused on the rhetorical differences between texts written in English by academics with different cultural backgrounds (e.g. Kaplan, 1966; Mauranen, 1993a, 1993b). However, this approach has received a great deal of criticism. Vähäpassi (1988: 51), for example, argues that in order to draw valid conclusions as to what extent writing is culturally and situationally influenced, written discourse in the native language and in national contexts should be used. Reid (1988, cited in Moreno, 1998: 551) also notes that texts written by non-native speakers do not constitute "a sufficient data sample for valid analysis because they use second language texts to investigate first language rhetorical patterns". The two main approaches to CR today, as Leki (1991) points out, seem either to establish textual criteria and search for those qualities in samples of successful and unsuccessful texts by students writing in their L1, or to examine L1 texts from different cultures, often professional, published work, and the rhetorical contexts in which these texts are inscribed. An

example of the first approach is Mohan and Lo (1985), who examined the written compositions of learners still at school whereas some examples of studies which have analysed the writings of experienced academics in their own fields of knowledge are Taylor and Chen (1991) and Burgess (1997, 2002).

As we have seen, much of the direction later CR research has taken has been, explicitly or implicitly, a reaction to Kaplan's pioneering work. This early study, in its theoretical assumptions and its methodology (i.e. the use of L2 texts to arrive at descriptions of the supposed rhetoric of the writer's L1, the use of the paragraph as the unit of analysis, and a contrastive approach to data) has functioned as a model for many researchers, and inspired intense critical appraisal from others.

In a more recent work, Kaplan (1987) has recognised many of the shortcomings of his 1966 paper, including the neglect of exophoric factors such as sociolinguistic and genre constraints on the production of written discourse. He also uses expressions such as "tendencies" of a language to follow a certain pattern, while readily admitting that many different patterns are possible in almost any language. Unfortunately, as Martin (1992) notes, this broader evolution in Kaplan's later work has been largely ignored by many contrastive rhetoric researchers, who tend to address only his earliest, most tentative explorations of the notion of CR, and which Kaplan (1987: 10) himself refers to as his "doodles article".



## **2. 4. Development of CR studies**

Two main trends in form and content of CR research have evolved in recent years. Martin (1992: 15) terms these “metarhetorical” and “empirical”. The former refers to those studies which present discussions about rhetorical features of languages, and selectively use language data as examples to illustrate these features, and to support hypotheses about rhetorical differences among various languages (e.g. all of Kaplan’s articles). The latter are attempts to empirically analyse actual occurrences of cross-language or L2 written discourse by applying some system of analysis to a larger number of written texts and then postulate rhetorical characteristics or tendencies suggested by the results of the analysis (e.g. Hinds, 1987, 1990; Mohan & Lo, 1985).

Although much early CR work was metarhetorical in form, as a reaction to Kaplan’s flaws in his original research methodology and conceptualization of the CR notion, the major focus of attention in recent CR work has been in the direction of empirical studies. This has, in turn, brought about an expansion in the parameters of CR research. Approaches such as the use of L1 data from languages other than English, exploration of the applicability of a variety of text analysis instruments, comparisons made between languages other than English as L1s and L2s, and analysis of texts of various genres all point to the increasingly sophisticated and complex

nature of issues that current CR researchers are addressing in their work (Connor, 1996).

As Leki (1991) reports, empirical contrastive studies in the 1970s still continued to focus primarily on lower level differences, despite the recognition that discourse phenomena present ESL writers with major difficulties. Some researchers continued Kaplan's approach, examining the writing in English of non-English-speaking-background students to detect systematic textual differences in their written English and that of English speakers. Others focused on textual analysis of L1 writing. An example of this second approach is Santana-Seda (1974, cited in Moreno, 1998: 546). This author analyses the organization of English and Spanish paragraphs written by native speakers of each language. According to Moreno (1998: 546), Santana-Seda finds differences in aspects such as sentence length, number of sentences per paragraph, and number of digressive sentences.

In the 1980s there was a renewed interest in CR and in the exploration of more than strictly surface features of discourse (Leki, 1991). Contrastive studies began to analyse discourse-level features of texts such as superstructures (e.g. Connor, 1987), discourse development (e.g. Hinds, 1987; Clyne, 1987) or combined analyses of several text levels (e.g. Connor & Lauer, 1988; Indrasuta, 1988). There were also explorations of the broad political, economic and historical contexts of text production. Kachru (1988), for example, in her examination of Hindi, points out that while oral exposition was common in Sanskrit and that this influenced Hindi, there was no Hindi

expository writing as such before British colonization and that therefore Hindi can be expected to show the influences both of oral Sanskrit exposition and written British exposition. Researchers also began to consider diachronic and synchronic factors. A case in point is Hinds (1987), who suggested that Chinese is becoming a writer-responsibility language having once been reader-responsible (see above). Researchers also turned to examining writers and writing in particular settings (e.g. Bazerman, 1988; Becher, 1989; Myers, 1989). These studies showed that writers' plans, goals and other process-based strategies are dependent on the particular purpose, settings and audiences (Connor, 1996). The concept of "discourse community" became an integral part of research into academic writing. Researchers in applied linguistics addressed the existence of conventions in the practices of discourse communities, and focused on how these conventions are learned in social contexts.

The 1990's saw the continued expansion of the Social Constructionist approach <sup>2</sup>, which points to the linguistically mediated relationship between knowledge and the social context. This notion refers to the idea that we know the world only as we perceive it (subjective perception). The "real conditions" of our existence are not subjective, however, they only have meaning through

---

<sup>2</sup> This approach views three ways of appreciating "truth" for understanding reality: Objective (Nature does not care what anyone thinks), subjective (what I think matters) and inter-subjective (what we think matters). However, according to this view, these three tools are not guaranteed to take us to absolute "truth", since this conflicts with the irrational but frequent delusion that absolute truth is accessible to us.

social interaction. As we interact, we (re)construct the “reality” of our world. Reality is then situational or pragmatic in that the context governs our interpretation. The socio-constructionist approach to discourse analysis is the view that knowledge begins as an individual emotional response to a written text, which is then negotiated into communal knowledge to which all members of a discourse community freely assent. This implies that many aspects of academic texts can be explained by the social and cultural contexts from which those texts emanate.

In this decade a great deal of research on CR began to focus on genre-specific texts. As Swales (1990) notes, it is not enough to describe text types (e.g. narrative, descriptive, argumentative) or situations (writing in certain discourse communities), but one also needs to consider the specific tasks and purposes of writing, that is to say, genre.

The enhanced research activity on genre-specific writing cross-culturally in recent years, as Connor (1996) notes, has led to a broadening in scope of the type of writing analysed to include a variety of school writing genres (e.g. essays written for narrative, reflective and persuasive purposes), as well as professional writing in academic and workplace situations such as the writing of research articles and grant applications. This is seen particularly in the increasing number of cross-cultural studies comparing English academic writing to other languages such as Chinese (e.g. Taylor & Chen, 1991; Bloch & Li, 1995), Finnish (e.g. Mauranen, 1993a, 1993b), Czech (e.g. Cmejrková, 1996), Polish (e.g. Duszak, 1994, 1997), Swedish (e.g. Melander, 1998),

Malay (e.g. Ahmad, 1997), and many others.

In recent years there has also been an increasing interest in how literacy practices are culturally and socially constructed. Literacy practices are seen as embedded in the culture and education system, the main task of which is to perpetuate the values of society. The school thus reflects that particular culture's values (Connor, 1996). As Purves (1988) argues, it is in schools that students learn to write according to certain conventions, many of which have little to do with the structure of the language and more to do with the literacy and cultural heritage of the society. Researchers have focused on what, within a given culture or society, are considered effective literacy practices, what skills constitute literacy, in what manner it is transmitted and for what purposes it is used (Clyne, 1987; Leki, 1991; Connor, 1996; Ostler, 2002).

One of the most valuable contributions of CR research, according to Canagarajah (2002), is that it treats the discursive deviations of non-native students of English with more tolerance and appreciation. As Canagarajah (2002: 34) points out, "CR is informed by a relativism that treats the features of each community as motivated by their unique linguistic and cultural traditions that one cannot be generalized as superior over others". However, although CR respects differences, Canagarajah (2002: 35) argues that it displays a "static and homogeneous orientation to culture", that is, the cultures of different communities are treated as separate and unvarying, as if there were no common features or overlaps, and by doing so, CR overlooks the considerable hybridity and heterogeneity that exists. He gives the example

of the diversity of styles one may find in the Japanese community and the changes Japanese rhetoric has gone through in recent history. Canagarajah also illustrates the case of Sri Lankan scholars who shift from local to western academic communities belonging to their fields as they publish their findings. He depicts the present stage of heterogeneous orientation to culture as follows:

In this age of globalization, when we shuttle between communities and enjoy multiple memberships, it is hard to pin down any person or community as characterised by an immutable set of values (Canagarajah, 2002: 35).

The findings of recent CR studies have revealed that the patterns of any language culture are complex and dynamic, responding to the interactions between discourse communities and individual writers over time and in varied contexts. This interactive approach to text involves factors relevant to the contextual environment (e.g. authorial intention, or cultural/educational background). Approaches to text analysis are thus increasingly multi-dimensional and interactive. More and more exophoric features are seen as intimately connected with the very notion of discourse production and reception across languages and cultures (Martin, 1992).

The expanding discipline of CR is hence of considerable interest to the field of second language teaching, particularly to those involved in teaching composition and Languages for Specific Purposes. However, the pedagogical

applications of CR findings have attracted criticism especially from many who emphasise the writing process and the sociocultural context of writing. Leki (1991), for instance, criticises the prescriptive and simplistic application of CR insights in the writing classroom. As opposed to the predominant textual orientation of CR, which suggests that schemata might be directly taught, Leki favours a process orientation, which attempts to induce the construction of schemata indirectly, through student contact with target discourse community readings. However, Leki is ready to make clear that a distinction between a process orientation and a textual orientation in L2 writing pedagogy is not the simple distinction between form and content, since both attempt to create appropriate text schemata, both work to initiate students into the target discourse community and both focus on the discovery of meaning, albeit in different ways.

Apart from providing information about text structure preferences which are considered to represent successful communication across cultures, CR studies can also make students aware of the fact that specific difficulties in L2 writing derive from their own particular rhetorical tradition. In this regard, CR studies are particularly beneficial for novice writers. As Leki (1991: 138) points out, “the metacognitive awareness students can develop is one more step along the road to the realization that writing consists of making choices, an important insight for young writers to develop”.

Modern CR studies concern themselves with the construction of knowledge within discourse communities, but this approach has some

limitations. Leki (1991), for example, raises the question of how students learn the dynamic construction of knowledge through discourse when they are not in fact participants in the discourse communities. She considers that it is the responsibility of second language teachers to present the expectations of the audience to L2 learners.

Alongside the influence of audience, the current CR paradigm also includes the analysis of written products in the classroom and considers those educational, cognitive, and social dimensions that impact on cross-cultural writing.

#### **2. 4. 1. CR studies in Spanish**

Contrastive studies in Spanish have been very scarce until comparatively recently, and have focused mainly on the level of the sentence. Connor (1996) cites the work by Santiago (1970), as the first empirical contrastive study dealing with Spanish. She also cites Santana-Seda's (1974) study, and more recent work such as Reid (1988) and Montaño-Harmon (1988, 1991). According to Connor (1996: 52), all these studies indicate that Spanish-speaking writers prefer "elaborate and ornate language" and "loose coordination", longer sentences, fewer simple sentences, more synonyms, and more additive and causal conjunctions, as compared to the writing of English-speaking background writers. Researchers in contrastive studies between



English and Spanish academic genres from different disciplines have, since the 1990s, shown a growing interest in this area as can be seen, for example, in the work by Valero-Garcés (1996) and Moreno (1997, 1998) in their analysis of metatext in economics RAs, Burgess (1997, 2002) on the rhetorical structure of RA introductions in the field of linguistics; and more recently Salager-Meyer et al. (2003) in their study of academic criticism in medical RAs. Moreno (1998: 546) cites the work by López (1982) as the first contrastive study that applied Swales' (1981) model to the analysis of the introductions of medical articles in English and Spanish. Salager-Meyer et al. (2003) also cite the study by Vásquez (1987) of the discussion section of English and Spanish articles, also in medicine. All these cross-cultural studies of academic genres are particularly interesting in that they raise the issue of determining which aspects of academic discourse are subject to restrictions of the writing conventions of the genre and the discipline, and which aspects are governed by socio-cultural or socio-pragmatic factors.

## **2. 5. Academic writing: a homogeneous phenomenon?**

As numerous CR studies have shown, culture influences writing, as writing is clearly a product of social activities and is shaped by the educational system in the writer's native culture (Degenhart & Takala, 1988). However, it has been traditionally assumed that certain areas of culture are universal.

Science is a case in point. As mentioned in Chapter 1, according to Widdowson (1979: 61), there is a universal rhetoric of scientific exposition which “with some tolerance for individual stylistic variation, imposes a conformity on members of the scientific community no matter what language they happen to use”. The universality hypothesis implies that the methods and concepts of a science form a secondary cultural system, and that there are specific and characteristic discourse structures in technical and scientific communication. These modes of communication are assumed to apply to all scientific disciplines and are described as “scientific discourse”. Scientific discourse is, according to Widdowson, basically independent of its realization in a particular language.

To counter Widdowson’s claim, contrastive rhetoricians maintain, as seen above, that the discourse or rhetorical structures of scientific texts in different languages may vary greatly due to cultural influences. Research in CR has revealed that it is not only markedly different cultures (e.g. English and Japanese) that vary in their discourse preferences, but also those cultures which have had frequent contacts and that share a common linguistic past (e.g. German, English and French).

Although the idea that the differences in scientific textual patterns are linked to cultural variation seems intuitively attractive to some researchers, recent cross-cultural studies on specific genres have revealed that not all aspects of academic discourse are similarly influenced, but that there are certain aspects that are conditioned by genre in particular language groups.

Mauranen (1993a), for instance, in her analysis of metatext use in economics research articles written in English by Finnish and Anglo-American academics, found that Anglo-American writers use more metatext than Finnish writers. She assumes that, despite a relative uniformity of academic papers imposed by requirements of the genre in a particular discipline, there is significant intercultural variation in the rhetorical preferences of writers, as she considers that “writing is a cultural object that is very much shaped by the educational system in which the writer has been socialised” (Mauranen, 1993a: 12). On the other hand, Moreno (1997), in her study of the use of cause-effect metatext in RAs written in English and Spanish in business and economics, found that the writers in both languages use similar metatextual strategies and with similar frequency. She concludes that, as regards this rhetorical feature, the writing conventions of the RA genre are more powerful than the cultural peculiarities of the Spanish and the English-speaking communities, in as much as they are able to unify the nature of discourse patterns across languages. The results of these studies suggest that there are certain aspects of academic discourse which are more amenable to the restrictions of the writing conventions in a specific discipline and in a specific genre, and that this would tend to be universal, whereas there may be other aspects that are governed by socio-cultural factors, which are therefore culture-specific.

Taylor and Chen (1991) compared the introductions to papers written in a variety of related disciplines by three groups of scientists: Anglo-Americans writing in English and Chinese writing in English and Chinese. Their results revealed the existence of intracultural rhetorical variations that characterised the discipline rather than the language or nationality of the writers. As they (1991: 322) observe, “there is a culture of the discipline or sub-discipline that is international to a greater or lesser extent, and which finds expression in the rhetorical structure of the work written in that discipline”. Their findings thus suggest that a great deal of attention needs to be paid to the rhetoric of specific disciplines, rather than to broad generalizations about national rhetorical styles or universals.

Recent research on cross-cultural academic writing views scientific texts as reflecting the social relations between writers and readers. As Duszak (1997) puts it:

In reporting research, writers have options that are competing for access to code. By choosing some and rejecting others, they perform strategic acts of commitment: their decisions become explicable in terms of textual as well as interpersonal meanings in discourse (Duszak, 1997: 12).

Burgess (1997, 2002), for example, compared the published output of Spanish-speaking linguists writing in their first language and in English to that produced by English-speaking background writers. Her results showed

that not all academics from the same national group exhibited a shared body of discourse norms. Instead, she found variation across all the groups of texts used in her study, thus indicating that there are other socio-pragmatic factors which may lead to variation in discourse structures, principally the relationship between writers and the audience they address. As Mauranen (1993a: 5) puts it, the rhetorical means available to a writer for realising his or her rhetorical objectives “are limited by the value and belief systems prevailing in the discourse community which constitutes the social context for the text”. Duszak (1997: 14) also points to the context of communication (the setting, the participants, their knowledge, beliefs, assumptions, and attitudes) as well as situation-specific rules of linguistic behaviour as factors that seem to influence the form of academic discourse.

Genre studies which seek to investigate the question of whether the structure of academic texts from the same discipline but from different languages follow language-independent or language- and culture-specific principles are still relatively lacking, despite their potential value in the teaching of languages for specific purposes (Gnutzmann & Oldenburg, 1991). Ventola and Mauranen (1996) point out that despite the fact that competent members of scientific communities are expected to be able to produce research papers in their field, there has been very little research on how academics acquire the requisite skills and what kinds of skills are in fact involved. Non-English-speaking background scholars who write in English may thus find themselves in a situation where their articles do not get

accepted by English language journals, but they may not know where to turn to for help to gain the acceptance they seek and get their papers published. In her recent review of the CR paradigm, Ostler (2002) notes that this is an area of research that is currently expanding both horizontally across cultures and vertically over various genres in the same languages.

## **2. 6. CR and the present study**

The present study is concerned with the comparison of texts produced by writers from two different language cultures. In this regard it can be categorised as CR research.

As was observed above, there are two main approaches that have been adopted in CR research to redress the imbalance of Kaplan's (1966) paper. The first involves the the examination of texts written by students in their L1, the second focuses on the analysis of published texts written by professional writers, and the rhetorical contexts in which these texts are produced. In comparing L1 academic texts published in Spanish and English by native speakers<sup>3</sup> of those languages, this study takes up the second of these

---

<sup>3</sup> It has to be mentioned that, for the purposes of textual analysis, it is difficult to determine whether or not writers of international publications are native speakers of English, particularly in those cases in which they have non-Anglo-Celtic names and their institutional affiliations are established in non-English-speaking countries.

approaches.

Apart from the examination of L1 text, researchers are increasingly considering educational background when selecting informants. Vähäpassi (1988: 49), for example, observes that even comparing results from two groups of similar students in different school systems involves controlling for differences in “instructional emphasis”. She argues for the inclusion of other variables such as the social background of writers. Similarly, Ostler (2002) considers that more attention should be paid in controlling populations in terms of physiological and educational maturity as well as gender, cultural familiarity and level of fluency. All these factors should, according to Ostler, be considered alongside task type and purpose.

In the present study, the authors of the texts can be regarded as a homogeneous group in that they are all qualified members of the Spanish- and the international English-speaking communities. I have disregarded the issue of whether they are native speakers of the languages concerned or not, on the basis that if their papers (and accompanying abstracts) have been accepted for publication after a process of peer review, this implies that they conform to the rhetorical norms favoured by the members of their respective communities.

The disparity between the results obtained by researchers in contrastive discourse analyses are very often attributed to flaws in the method employed. Gnutzmann and Oldenburg (1991: 106), for example, criticise Clyne’s work because of its “unsatisfactory empirical basis”, as he compares

texts taken from different disciplinary areas, a factor that ultimately may have yielded unreliable results. These authors argue for a division of LSP-texts into smaller groups that share characteristics such as subject, text type, and addressee. Accordingly, they propose a classification of five types of texts depending on their degree of abstraction. Thus, those texts belonging to disciplines such as mathematics are considered to have a higher degree of abstraction than those from the humanities or social sciences<sup>4</sup>.

Genre and the content of writing are clearly important variables to contrast. Kaplan himself (1966: 2) observed that rhetorical structure varies within a given culture. Taylor and Chen (1991) claim that the same is true for subcultures and for speech and writing within those subcultures. They criticise Mohan and Lo's (1985) study for failing to specify what they mean by "academic writing" in terms of genre and discipline. They argue for being specific not only about the discipline but also schools of thought within a discipline (Taylor & Chen, 1991: 321).

Following these considerations, in the present study, I analyse two groups of texts belonging to the same academic genre, the RA abstract. Genres are defined by their communicative purpose (Swales, 1990); in this

---

<sup>4</sup> Gnutzmann and Oldenburg (1991: 110) themselves recognise that this typology has its limitations, as there are scientific texts from the same subject which may slot into different levels. They acknowledge the fact that it is not always possible to draw clear distinctions between two adjacent levels of abstraction, and that the application of this model has to rely to some extent on the intuitions of the researcher.



sense, the corpus of texts which I have analysed can be regarded as homogeneous in as much as the RA abstract fulfills the same function (see Chapter 3, section 3.5.1) in both the Spanish- and the English-speaking scientific communities. In order to control for generic variation across disciplinary fields, the texts selected in this study were drawn from two specific disciplines (phonetics and psychology) in the experimental social sciences and published in leading journals in the fields over the last decade.

A number of scholars have highlighted the importance of examining rhetorical context in CR studies, including the educational systems from which the texts emanate. Grabe (1987), for example, calls for a greater precision in textual types, purposes, readers, places of publication, and other specific variables of context from which the texts are drawn. Leki (1991) reviews a number of approaches to the issue of context, such as the examination of school writing instruction and style manuals. While such an approach can obviously complement a study such as the one I have undertaken, as noted earlier, there are few style manuals on abstract writing (see, for example, Cremmins, 1982; Day, 1989; Pinto-Molina, 1992), and most of these address specific formal text features or contain grammatical or stylistic prescriptions. Leki (1991) has also pointed out the difficulty of determining whether the prescriptions manuals contain have the same meaning across cultures. For this reason, I have chosen to limit my study to the texts themselves.

## *Chapter 3*

---

### **Discourse Community and Genre**

#### **3. 1. Introduction**

Over the last decade, increasing attention has been given to the notion of genre and its applications in language teaching and learning. This interest has been mainly driven by the desire to understand how individuals use language to interpret and respond to communicative situations and the ways these uses change over time. Genre-based approaches, by developing a theory of language and a pedagogy based on research into the linguistic structures

of texts and the social contexts in which they occur, have therefore had considerable impact (Hyland, 2002: 113).

Although there is general agreement among genre theorists that genres are socially recognised ways of using language (Hyon, 1996; Yunick, 1997; Hyland, 2002), genre analysts differ in the emphasis they give to either the social contexts or the texts, whether they focus on the functions of texts in discourse communities, or the ways that texts are rhetorically organised to reflect and construct these communities.

### **3. 2. The concept of ‘Discourse Community’**

In his definition of genre, Swales (1990: 58) conceptualises the discourse community as “the parent of genre”. He attributes the notion of ‘discourse community’ to the work of various social constructionist theorists, quoting Herzberg (1986):

Use of the term “discourse community” testifies to the increasingly common assumption that discourse operates within conventions defined by communities, be they academic disciplines or social groups. The pedagogies associated with writing across the curriculum and academic English now use the notion of discourse community” to signify a cluster of ideas: that language use in a group is a form of social behaviour, that discourse is a means of maintaining and extending the group’s

knowledge and of initiating new members into the group, and that discourse is epistemic or constitutive of the group's knowledge (Herzberg, 1986: 1, as cited in Swales, 1990: 21).

Swales (1990: 24) develops the idea of 'discourse community' by comparison with 'speech community'<sup>1</sup>. He mentions several reasons for separating the two concepts: The first is that a discourse community requires a network of communication and common goals while there may be considerable distance between the members both ethnically and geographically. In contrast a speech community requires physical proximity. A second reason that Swales mentions is that a discourse community is a sociorhetorical unit that consists of a group of people who link up in order to pursue objectives that are established prior to those of socialization and solidarity, both of which are characteristic of a speech community (i.e. a sociolinguistic unit). A final point is that discourse communities are centrifugal (they tend to separate people into occupational or speciality-interest groups), whereas speech communities are centripetal (they tend to absorb people into the general fabric of society).

Swales (1990: 24-32) proposes six defining criteria that any discourse community should meet:

---

<sup>1</sup> For an extended discussion on the concept of speech community, its developments and general problems with contemporary notions, see Patrick (2002).

1. A discourse community has a broadly agreed set of common public goals.
2. A discourse community has mechanisms of intercommunication among its members.
3. A discourse community uses its participatory mechanisms primarily to provide information and feedback.
4. A discourse community utilizes and hence possesses one or more genres in the communicative furtherance of its aims.
5. In addition to owning genres, a discourse community has acquired some specific lexis.
6. A discourse community has a threshold level of members with a suitable degree of relevant content and discourse expertise.

These criteria emphasise that, for Swales, a discourse community is a social group that uses language to accomplish work in the world and that discourse maintains and extends a group's knowledge. The implicit emphasis given to the international character, as Bloor (1988: 58) points out, is of particular importance for ESP teaching, as it raises the status of non-English-speaking background students, and fosters the understanding of the relationships between the members of particular disciplines across political and geographical boundaries.

Notwithstanding, Swales' definition of discourse community has been criticised for being narrow and for the very restrictive role he gives to it.

Mauranen (1993b: 14), for example, argues that there are discourse communities of many different kinds that fit Swales' definition, that discourse communities are subject to change, and that the tension between tendencies towards change and stability can be perceived in the use that communities make of language. Furthermore, Mauranen argues that Swales' definition of discourse community excludes the academic or scientific community as a whole, since only individual disciplines might meet all or most of his criteria.

The concept of 'discourse community' has also been discussed by, among others, Bizzell (1992), who recognises that there is an absence of consensus about its definition. Bizzell (1992: 222) herself provides a definition of discourse community that basically differs from that of Swales in that a community's discourse and its discursal expectations are regulative of world view. Bizzell claims that 'discourse community' borrows not only from the sociolinguistic concept of 'speech community', but also from the literary-critical concept of 'interpretative community', thus relating the issue of linguistic and stylistic convention to those of interpreting experience and regulating the world views of group members. As regards Swales' definition of 'discourse community', Bizzell (1992: 227) points out that by treating the discourse community as essentially a stylistic phenomenon, Swales delimits the object of study "in such a way as to leave out larger socioeconomic and cultural elements - that is, those elements that most forcefully create world views in discourse". In contrast to Swales' position that it is possible to be a member of a discourse community without wholly accepting that

community's world view, Bizzell (1992: 232) argues that if discourse communities involve regulating the world views of their members, then conflicts can arise when community membership overlaps. She further argues that for an individual who belongs to multiple discourse communities, the resolution of such conflicts requires the exercise of power.

### **3. 2. 1. The relationship between Discourse Community and Genre**

The close relation between discourse community and genre has been frequently acknowledged in the literature. Bhatia (2002), for instance, sees genres as conventionalised communicative events embedded within disciplinary or professional practices. The socially situated nature of genres is typically foregrounded by the notion of discourse community. As Hyland (2002: 121) points out, "by focusing on the distinctive rhetorical practices of different communities, we can more clearly see how language is used and how the social, cultural, and epistemological characteristics of different disciplines are made real". Swales (1990) characterises the relationship between discourse community and the generic forms that they produce, suggesting that genres belong to discourse communities, not individuals. Similarly, Bazerman's (1988) study of the development of the experimental article

establishes an important connection between the formation of a scientific community and the development of discourse strategies for making claims about experiments.

Freedman and Medway (1994) have raised the question of the circularity of the relationship between genres and discourse communities. Mauranen (1993b) considers that it is the genre which defines or selects its user groups rather than the other way around. According to Mauranen different social groups have access to different genres. It is the social purpose of the linguistically realised activity that determines who is allowed to use it. Paltridge (1997a), on the other hand, holds that it is the discourse community that determines the conditions for identification of genres. For Berkenkotter and Huckin (1995: 25) genres are also determined by their users. They further argue that a close examination of genres may reveal a great many of a discourse community's social practices, ideology and epistemological norms. Similarly, recent research (e.g. Hyland, 1998, 2000, 2002) suggests that content, structure, and interactions are community defined, and that genres are often the means by which institutions are constructed and maintained.

The importance of giving consideration to how genre is viewed by a particular community can be seen in the work of Myers (1989, 1990). He explores interactions between writers and readers within discourse communities. This approach, as Paltridge (1997a) notes, considers the role of audience both in terms of shared understanding and expectations of how a text should be written. Myers (1989: 3) makes a distinction between two



types of audience: the wider scientific community (exoteric audience), to whom a research report is ostensibly addressed, and an immediate audience of individual researchers doing similar work (esoteric audience). As Myers argues, although the writer really addresses the esoteric audience, s/he has to use forms as if s/he were addressing a general scientific audience. In this way, although knowledge of some terms is assumed, well-known researchers and relevant studies have to be cited as if the reader did not know them. This for Myers is evidence of the way in which the relationship between writers and readers (the discourse community) shapes the rhetorical features of academic texts.

The study of reader-writer relations within discourse communities contributes to an understanding of why some linguistic features are used in the production of academic genres. The examination of textual features reveals how writers adapt their practices to their audience and how participants collectively construct genres. This socio-pragmatic approach constitutes a major concern in the present study.

### **3. 3. The concept of 'Genre'**

The term 'genre' has long been used in literary studies to refer to different types of literary text, and has been widely used with a similar

meaning in related fields such as film studies. Today, as Swales (1990: 33) points out, this term is used to refer to “a distinctive category of discourse of any type, spoken or written, with or without literary aspirations”. The notion of genre has been discussed in a range of different areas, including folklore studies, linguistic anthropology, the ethnography of communication, conversational analysis, rhetoric, literary theory, the sociology of language, and applied linguistics (Paltridge, 1997a). Most interpretations of the concept of genre, in the widely different fields in which it is used, seem to agree at least implicitly on one point: genres are types or classes of cultural objects defined around criteria for class membership (Mauranen, 1993b).

In linguistics, the first explorations of the concept of genre are to be found in the work of ethnographers of communication, who took genre to refer to “a type of communicative event” (Swales, 1990: 39). Some of the first linguistic descriptions were provided by researchers such as Biber (1988), who approached genre by making quantitative analyses of surface linguistic features of texts in the hope that statistical properties would reveal significant differences between them so that they could be grouped according to shared features. Similarly, Grabe (1987) made an extensive statistical survey of elements such as prepositions, tenses, passives, etc., in order to determine the distinguishing features of expository prose in English. Although this level of linguistic analysis tells us very little about what aspects of genres are textualised and to what ends, as Bhatia (1993) notes, linguistic analyses of frequency of lexico-grammatical features are useful in the sense that they

provide empirical evidence to confirm or disprove some of the intuitive claims that are frequently made about the lexical and syntactic characteristics of spoken and written discourse. Yunick (1997: 326) too argues for the importance of these types of analyses, since quantitative work serves to identify not only phenomena general to many genres across cultures and languages, but also significant patterns of meaning which might not emerge from ethnographic analyses alone.

The current conception of genre involves not only the examination of conventionalised forms, but also considers that the features of a similar group of texts depend on the social context of their creation and use, and that those features can be described in a way that relates a text to others like it and to the choices and constraints acting on text producers (Hyland, 2002). Notwithstanding, as was stated earlier, genre theorists have differed in the emphasis they give to either context or text whether they focus on the roles of texts in social communities, or the ways that texts are organised to reflect and construct these communities. Three broad schools of genre theory can be identified, according to Hyon (1996), in terms of their different conceptions and pedagogical approaches to genre: Systemic Functional Linguistics (SFL), also known as the Sydney School (see, Freedman & Medway, 1994); North American New Rhetoric studies, and the ESP research tradition.

### 3.3.1. The Systemic Functional Linguistics approach to genre

Broadly speaking, as Hyon (1996) notes, Systemic Functional Linguistics is concerned with the relationship between language and its functions in social settings. For systemicists, a text can be described in terms of two complementary variables: the immediate situational context in which the text was produced (*register* or *context of situation*) and the overall purpose or function of the interaction (*genre* or *context of culture*). Registers are reflected in the kinds of linguistic choices that typically realise three aspects of a text: *Field*, which refers to what the text is about; *mode*, which refers to the channel of communication, and *tenor*, which refers to the interpersonal relationships between participants and their social roles. In SFL, each of these situational variables has a predictable and systematic relationship with lexico-grammatical patterns, and functions to produce three types of meaning, i.e. the experiential, the textual, and the interpersonal (Eggins, 1994: 76).

Halliday himself, however, does not provide a full account of the relationship between “genre” and “register” (Swales, 1990; Hyon, 1996; Bloor, 1998). For Halliday, as Yunick (1997) argues, genre has no serious theoretical status. It is seen as a cultural and historical phenomenon which is involved in the realization of mode. Nevertheless, according to Martin (1985)

and Ventola (1987), registers provide constraints on lexical and syntactic choices (e.g. the language of research papers or journalism), while genres constrain the choices of discourse structures in complete texts (e.g. a research article or a news story). Accordingly, the above mentioned typologies of Biber or Grabe would be regarded as describing register, not genre. While this distinction may be productive, Yunick (1997: 329) claims that it could also result in potentially confusing associations, since all language use is realized both in terms of lexico-grammar and discourse structure, and both discourse structure and lexico-grammatical patterns may be specified in varying degrees of prototypicality.

Ultimately, Martin (1985: 25) defines genres as a “staged, goal-oriented, purposeful activity in which speakers engage as members of our culture”. There are thus as many different genres as there are recognizable activity types in a culture (e.g. short-stories, recipes, lectures, etc.). Genres are instantiated in complete texts by means of the conventions associated with their overall form or global structure.

Eggs (1994) expresses the relation between genre, register and language in the following terms:

- Language is used with a function or purpose, and this use is related to a given situation and a specific culture.
- The context of culture (genre) is more abstract, more general, than the context of situation (register).
- Genres are realised through languages, and this

process of realising genres in language is mediated through the realization of register (Eggins, 1994: 78).

The ways in which Systemicists view register as mediating the realization of a genre is through a functional constituent structure or “schematic structure” which has been established by social conventions. A text can be identified as belonging to a particular genre through the analysis of its schematic structure. There are elements of schematic structure that are defining of a genre (i.e. obligatory elements), and others that are optional. A genre is thus defined in terms of its obligatory elements of schematic structure and variants of a genre (i.e. subgenres) are those texts in which the obligatory schematic structure elements are realised together with optional elements (Eggins, 1994).

For the majority of Systemic genre analysts, according to Eggins (1994), a text can be identified as belonging to a particular genre through an analysis of ways in which genre is realised in language, that is, the general view among systemicists is that genre can be defined in terms of linguistic properties alone. Paltridge (1997a: 104), on the other hand, argues that the structure of a text is, at no point, genre defining, since in typical instances of a genre, it is not the presence of particular discourse structures alone which leads to the recognition of a text as an instance of a genre, but rather “the co-occurrence and interaction of each aspect of discourse structure with other components of interactional and conceptual frames in their entirety”. Paltridge

thus sees genre assignment on the basis of both pragmatic and perceptual conditions.

The linguistic contributions of SFL to the study of genre lie in dissociating genres from registers and styles, in considering genres as types of goal-directed communicative events or social activities, and in acknowledging genres as having schematic structures. However, as noted above, the notion of register has traditionally been a much more central issue in Systemic linguistics than that of genre, and there is little said about rhetorical purpose except in the most general sense (Bloor, 1998). The studies in this research tradition, as Hyon (1996) notes, have mostly focused on describing textual features (both global text structures and sentence-level register features associated with field, tenor and mode) characteristic of various genres, rather than the specialised function of texts and their surrounding social contexts.

Genre-based applications in this tradition have been centered mainly in the context of primary and secondary schools, and more recently in adult migrant English education and workplace training programmes in Australia (Hyon, 1996; Hyland, 2002). The goal of Systemic Functional Linguistics and genre-based teaching has been to help students “participate effectively in the school curriculum and the broader community” (Callaghan, 1991, as cited in Hyon, 1996: 700). In order to achieve this goal, systemicists acknowledge the importance of teaching the social functions and contexts of texts. However, their main focus of attention has been teaching students the formal, staged

qualities of genre so that they can recognise these features (i.e. the functions, schematic structures and lexico-grammatical features) in the texts that they read and use them in the texts that they write.

### **3. 3. 2. The “New Rhetoric” School approach to genre**

The members of the school known as “New Rhetoric” studies are North American scholars such as Miller (1984/1994), Bazerman (1988), Bizzell (1992), and Berkenkotter and Huckin (1995), who reflect a different approach to the conceptualization and analysis of genre. Rather than focusing on formal characteristics of the texts in isolation, they give attention to the sociocontextual aspects of genres and how these aspects change through time. They also place special emphasis on the social purposes, or actions, that these genres fulfill within these situations (Berkenkotter & Huckin, 1995; Hyons, 1996; Paltridge, 1997a).

Since the primary concern for the New Rhetoric researchers is investigating the functional and contextual aspects of genres, their methodological orientation tends to be ethnographic (e.g. participant observation, unstructured interviews, etc.), rather than text analytic, with the aim of uncovering something of the attitudes, values, and beliefs of the communities of text users that genres imply and construct (Hyland, 2002). New Rhetoric scholars have studied contexts of social action such as the



writing of professional biologists (Myers, 1990), or the production of the experimental article (Bazerman, 1988). The studies in this line of research, as Freedman and Medway (1994: 2) point out, “unpack the complex social, cultural, institutional and disciplinary factors at play in the production of specific kinds of writing”.

A most striking difference between the Systemic and New Rhetoric work is the prescriptivism and the implicit static vision of genre that many see as inherent in the Systemic Functional Linguistics approach (Freedman & Medway, 1994: 9). In contrast, the New Rhetoric school emphasises the dynamic quality of genres (Berkenkotter & Huckin, 1995). A corresponding focus of research has been to trace the evolution of specific genres in response to socio-cultural phenomena in their contexts. Bazerman’s (1988) study of the evolution of the research article is a case in point.

The New Rhetoric perspective also favours a critical approach to the analysis of genre. Freedman and Medway (1994: 11), for example, criticise the Systemic school position, for its “uncritical acceptance of the status quo” and for not “subverting the power of existing genres and/or legitimizing new ones”. Freedman and Medway (1994: 15) see genres as “inescapably implicated in political and economic processes, but at the same time as shifting, revisable, local, dynamic and subject to critical action”. The questions that these authors suggest that need to be brought into genre inquiry are those related to the gender and racial ideologies underpinning writing practices, or issues of power relations, status and resources.

The pedagogical motivation of New Rhetoric research has been L1 teaching, including rhetoric, composition studies, and professional writing (Hyon, 1996). Consistent with their theoretical focus on sociocontextual aspects of genre, they have been less concerned with teaching text form and more with its role in helping university students and novice professionals understand the social functions or actions of genres (Yunick, 1997).

Although some of these studies offer thorough descriptions of academic and professional contexts surrounding genres and the actions texts perform within these situations (see, for example, Bazerman, 1988), as Hyland (2002: 114) notes, this approach has not tended to address itself to the classroom, generally regarding it as an “inauthentic environment lacking the conditions for complex negotiation and multiple audiences”. In contrast to the applied focus of SFL and ESP work, New Rhetoric has generally lacked explicit instructional frameworks for teaching students about the language features and functions of academic professional genres. The main reason for this lack of explicit teaching can be explained by their dynamic vision of genres. As Freedman and Medway (1994) observe:

If genres are understood as typified responses to social contexts, and if such contexts are inevitably fluid and dynamic, what sense can it make to explicate features of historical genres (and all genres are historical) as a way of teaching and learning? (Freedman & Medway, 1994: 10)

These authors further argue that genre knowledge and its use in social contexts is acquired through a process of socialization with the members of particular disciplinary communities, and that explicit teaching could even be an obstacle to this natural process.

### **3. 3. 3. The ESP approach to genre**

Researchers in ESP, such as Swales (1981, 1990) and Bhatia (1993), have also approached the notion of genre as a social phenomenon, and with a primarily pedagogical motivation of using it as an analytical tool to inform the teaching of English to non-English-speaking background individuals of this language in academic and professional settings. Swales (1990) defines the term “genre” as follows:

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived narrowly focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. If all high probability

expectations are realized, the exemplar will be viewed as prototypical by the parent discourse community. The genre names inherited and produced by discourse communities and imported by others constitute valuable ethnographic communication, but typically need further validation (Swales, 1990: 58).

According to this definition, a genre is primarily defined on the basis of its communicative purpose/s; this shared set of communicative purposes shapes the genre and gives it an internal structure. This internal structure is, in turn, constituted by conventionalised rhetorical elements which are shaped by the members of a discourse community as a result of their experience or training within a specific disciplinary community. Therefore, any digression in the use of lexico-grammatical or discursive features will be noticed as atypical by the discourse community and may have negative consequences, such as the rejection of a research paper (see, for example, Ventola & Mauranen, 1996).

The theory of prototypes is another important aspect in Swales's definition of genre. Prototype theory<sup>2</sup> aims to explain why people and cultures categorise the world in the way they do. According to this theory, people categorise items and concepts in keeping with a prototypical image they build in their mind of what it is that represents the item or concept in question. Prototype theory can be especially useful for accounting for variability in

---

<sup>2</sup> For further discussion on the concept of prototype see, for example, Rosch (1973).

genre, although, as Mauranen (1993b) notes, a problem with the application of prototype theory to genre analysis lies in the fact that genres are not clear-cut conceptual categories, but kinds of social behaviour. The family resemblance analogy is therefore appropriate as long as we deal with observed similarities in the characteristic features of realizations of genres.

Swales' definition of genre differs from that of the systemic linguists in the importance attached to the communicative purposes within a communicative situation (Bloor, 1998). This conception of the notion of genre draws on multiple perspectives such as ethnography of communication, and the above-mentioned work in the field of New Rhetoric, particularly Miller's (1984) notion of "genre as social action", in which genre is defined on the basis of its overall communicative goal. Miller's influence is also seen in the ESP discussion of genre which argues that genres are not static (see, for example, Bhatia, 1993, 2002), but entities that evolve in response to changes in particular communicative needs.

Despite the tremendous influence of this notion on the analysis of academic discourse, Swales' conception of genre has received some critical responses. Bhatia (1993: 16), argues that, although Swales takes into account linguistic and sociological factors in his definition of genre, he underplays psychological factors, thus "undermining the importance of tactical aspects of genre construction, which play a significant role in the concept of genre as a dynamic social process, as against a static one". Similarly, Paltridge (1995, 1997a) addresses this lack of a cognitive

dimension. He proposes a model for genre analysis which integrates both social and cognitive aspects for the classification of different genres, and adopts a pragmatic perspective based on the concepts of *prototype*, *intertextuality* and *inheritance*. The notion of prototypicality is central to Paltridge's framework for genre analysis. He holds that the closer the representation of a genre is to the prototypical image of the genre, the clearer an example will be as an instance of that particular genre. Conversely, the further away a genre is from the prototypical image, the less clear-cut an example of the particular genre the representation will be. He further argues for the importance of *intertextuality* and *inheritance*<sup>3</sup> to the framework he proposes in that these notions account for the relationship between instances of genres in the production and interpretation of texts.

In contrast to the New Rhetoric perspective that opposes the idea of explicitly teaching genre conventions, ESP researchers, like the systemicists, place their main focus on teaching formal features of texts, that is, rhetorical structures and grammatical features, so that non-English-speaking background students can learn to control the rhetorical organization and stylistic features of the academic genres of English-speaking discourse

---

<sup>3</sup> de Beaugrande and Dressler (1981: 10) describe *intertextuality* as “the factors which make the utilization of one text dependent upon knowledge of one or more previously encountered texts”. They define the notion of *inheritance* as follows: “the translation of knowledge among items of the same or similar type of sub-type” (de Beaugrande & Dressler, 1981:91).

communities. Hyland (2002), among others, has acknowledged the importance of genre analysis in as much as it provides useful information about the ways genres are constructed and the rhetorical contexts in which they are used. Bhatia (1997), in a recent publication has also noted:

Genre analysis has become one of the major influences on the current practices in the teaching and learning of languages in specialist disciplines like engineering, science, law, business and a number of others. By offering a dynamic explanation of the way expert users of language manipulate generic conventions to achieve a variety of complex goals associated with their specialist discipline, it focuses attention on the variation in language use by members of various disciplinary cultures (Bhatia, 1997: 313).

### **3. 4. Genre and the present study**

The present study has taken an ESP perspective on genre-analysis, that is, rather than taking an ethnographic approach that places emphasis on specifying the features of the contextual situation (e.g.description of participants, circumstances of the writing), the focus is on the description of linguistic structures and their functions. It can also be seen as making a contribution to the recent expanding area of Spanish for Specific Purposes, in as much as it provides accounts of the discourse conventions employed by

Spanish academics in specific disciplines.

Although genres seem to have preferred rhetorical structures, these obligatory elements of textual structure play an important role in the recognition of genres, but are not defining features. It is the social determinants of contextual situation that govern the structural generic choices available to writers in that situation. The linguistic structures of a genre are important in as much as they help identify specific instantiations as belonging to a specific genre or not, but the elements of structure are there because the text is to serve a particular function in the discourse community. Mauranen (1993b: 16) illustrates this idea with the example of parodies of academic papers which use all typical structural and stylistic conventions of the genre so that people familiar with it find them funny. In these parodies it is content alone that provides the clue to the humorous intention of the writer. Therefore, a poorly-structured RA abstract could be accepted as a member of the research genre, while even an extremely well-structured parody would be rejected on the basis that it does not represent the activity that the genre is supposed to represent.

In the present study, genre is thus considered a social concept centred around communicative goals and ways of fulfilling goals (cf. Swales, 1990). According to this view, science and other scholarly activities are viewed as similar enough to produce basically the same communicative actions (e.g. description of materials and methods, accounts of experiments, discussion of theories and explanations, etc.). But, as Mauranen (1993b) points out, the



way of actually doing this (i.e. the rhetorical strategies employed) may vary in such a way that certain patterns or preferences are distinguished when texts produced by writers from varying background are compared. Therefore, cross-cultural comparisons of genres must be conducted with caution. As Yunick (1997) claims, the presence or absence of a feature in one cultural context, even if very similar, may have a very different interpretation. Melander (1998) further argues that it is wrong to claim that scientific articles generally belong to the same genre, regardless of the language in which they are written, claiming the choice of language in many cases also brings about a choice of genre. In Swedish scientific articles, it appears, according to Melander, that authors may be regarded as addressing other audiences and having other communicative tasks to fulfill than do the authors of texts written in English. A case in point are RAs in bio-medical research which, Melander (1998) claims, differ in Swedish and English. He found that the articles in English are not scientific in a strict sense, but aimed at doctors working in a clinical setting, whereas the Swedish papers can be regarded as addressed to an audience of peer researchers.

### **3. 4. 1. The communicative function of the RA abstract genre**

In a contrastive analysis such as the one which is carried out in the present study, it seems then reasonable to start by ensuring that we are comparing the same genre in both languages, that is, that both groups of texts accomplish the same communicative purpose or social function in the respective discourse communities. Therefore, one may raise the question of whether the writers of the English and Spanish abstracts are faced with the same communicative task.

As regards the primary function of abstracts, Bhatia (1993: 78), for example, views the RA abstract as “a description or factual summary of the much longer report, and is meant to give the reader an exact and concise knowledge of the full article”. Salager-Meyer (1990), Gibson (1993), and Santos (1996), among others, as was noted earlier, regard English RA abstracts as independent genres with the explicit function of providing a summary of the content of the associated paper, thus indicating to readers whether the full text merits their further attention. This emphasis on the summarising function of abstracts is present in the work of several other authors (e.g. Graetz 1985, Kaplan et al., 1994), who have also revealed that many abstracts represent, in condensed form, the macro-propositions of the accompanying articles.

However, a clear distinction should be drawn between conference abstracts and RA abstracts, as they differ in terms of both function and

audience<sup>4</sup>. Conference abstracts tend to be longer and more rhetorically complex, as their main function is to convince the reviewers that the associated paper should be accepted for presentation at the conference. Berkenkotter and Huckin (1995) found that high-rated conference abstracts tend to highlight theory, address topics of current interest and often cite references to the scholarly literature. Promotional elements such as these are not required for RA abstracts, since these functions can be fulfilled by the accompanying RA. Bazerman (1988), nevertheless, observes that researchers make frequent use of RA abstracts when scanning for literature, thus suggesting that persuasive elements are not entirely out of place. Hyland (2000) further argues that the main function of RA abstracts is not merely to inform the reader of the content of an article, but to highlight important information and present the main knowledge claims. All this is done in a bid to persuade the audience to read the whole article. Hyland also observes that in order to gain readers' attention and persuade them to read the accompanying article, writers need to demonstrate that they are qualified members of the discourse community.

After the title, the abstract is generally the readers' first encounter with the text, and is often the point at which they decide whether to continue reading and give the accompanying article further attention, or to ignore it.

---

<sup>4</sup> For a detailed description of the types and functions of abstracts, see for example Lancaster (1991); Pinto-Molina (1992), and Moreiro-González (1993).

The research and the writer, as Hyland (2000) notes, are therefore under close scrutiny in abstracts and, because of this, writers tend to foreground carefully their main claims and present themselves as competent community members by showing that they master the rhetorical conventions which are favoured by the members of the disciplinary community.

The same function of summarising the main content of the accompanying research article has been attributed to RA abstracts written in Spanish (Pinto-Molina, 1992; Moreiro-González, 1993). An informal survey that I carried out among my Spanish colleagues in the Faculty of Philology at the University of La Laguna also indicated that this was the primary perceived function of RA abstracts<sup>5</sup>. It seems however that there is a more persuasive social function when abstracts are addressed to the English-speaking international community (see, Hyland, 2000) than when addressed to the Spanish community. Notwithstanding, in as much as the the main communicative purpose of RA abstracts is to provide a summary of the main content of the associated paper (e.g. Graetz 1985, Salager-Meyer 1990, Bhatia, 1993; Kaplan et al., 1994), I consider that the texts that constitute my corpus are all instances of the same genre.

---

<sup>5</sup> There was a general agreement about the summarising function of abstracts. Some of the interviewees also recognised a persuasive function of arousing interest in the topic in order to draw readers into reading the accompanying article. However, none of the interviewees acknowledged a persuasive function in the sense stated by Hyland (2000) of convincing the audience that they (writers) are competent members of the disciplinary community.

## Chapter 4

---

### **The Socio-Pragmatic Strategies Examined in this Study: An Overview**

#### **4. 0. Introduction**

In this study, the socio-pragmatic strategies examined in the English and Spanish abstracts are the following: rhetorical structure, hedging devices, first person pronouns and academic criticism. This Chapter provides an overview of how these strategies have been explored in the literature.

## **4. 1. Rhetorical structure**

A major focus of interest in genre-analysis has been the examination of the organizational patterns of English research articles (RAs). A group of studies has focused on analysing the rhetorical structure of specific parts of the RA: Swales (1981, 1990) famously studied the introduction unit of RAs across several disciplines and postulated a model which shows the preferred sequences of rhetorical moves and steps (see the following subsection 4.1.1).

The model proposed by Swales has in fact been adopted by many researchers in their analyses of rhetorical strategies in RAs not only across disciplines, but also across languages and cultures. Gnutzmann and Oldenburg (1991) undertook a comparative study of the introductions and conclusions of articles written in English and German. Taylor and Chen (1991) applied Swales's (1981) model to the contrastive study of RA introductions written in Chinese by Chinese writers, in English by Chinese writers and in English by English-speaking background writers. A similar study was carried out by Burgess (1997, 2002) who applied Swales's (1990) three-move model to the introductions of RAs written by Spanish-speaking academics who were specialists in English Linguistics, and publishing both in English and Spanish. She compared their rhetorical preferences with those of writers publishing exclusively in Spanish and English-speaking linguists publishing in international journals. Duszak (1994) compared the rhetorical strategies used by English and Polish writers in RA introductions. Ahmad (1997) analysed

the rhetorical structure of RA introductions written in Malay by Malaysian academics, in terms of Swales's (1990) model. Melander (1998) examined the textual patterns of RA introductions written in English by both Anglo-Americans and Swedes, and in Swedish by Swedes. All these studies have reported some kind of variation in preferred discourse structures across languages.

Other studies have examined the rhetorical organization of other sections of the RA in English. For example, Hopkins and Dudley-Evans (1988) looked at the rhetorical structure of the discussion section in research articles and dissertations. Holmes (1997) also analysed the rhetorical moves of the discussion section in three social science disciplines. Brett (1994), and Williams (1999) examined the communicative categories of the results section in sociology articles and medical articles respectively. Posteguillo (1999), apart from introductions, also analysed the results and conclusion / discussion sections of RAs in the field of computer science. Nwogu (1991, 1997), using Swales's (1990) genre-analysis model, studied the schematic organization of all the sections of medical research papers.

Other genre-analytic studies have departed from the explicit application of Swales's (1981; 1990) model and have extended the notion of move analysis from the RA to other academic and professional genres such as master of science dissertations (Hopkins & Dudley-Evans, 1988), business letters and textbooks (Bhatia, 1993, 1998; Love, 2002; Santos, 2002), Ph. D. theses (Bunton, 2002), the letter of application (Henry & Roseberry, 2002),

and the abstract. Some of the most recent studies in the rhetorical organization of abstracts in specific disciplines are those of Salager-Meyer (1990), Gibson (1993), Kaplan et al. (1994), Santos (1996), Anderson & Maclean (1997), Melander et al. (1997), Hyland (2000) and Samraj (2002a).

The studies which have applied the notion of move analysis from a cross-cultural perspective are relatively scarce, with a few exceptions such as Giannoni (2002) who examined variability in the rhetorical features of acknowledgements published in international and Italian journals. The present study also attempts to contribute to this area of research by using move analysis for the description of the communicative categories of RA abstracts from a cross-linguistic perspective.

#### **4. 1. 1. The concept of ‘move’ as a unit of analysis**

For the description of the rhetorical structure of the texts both in English and Spanish, I have used ‘move’ as the unit of analysis following the work of other researchers such as Swales (1981, 1990), Hopkins and Dudley-Evans (1988), Brett (1994) and Burgess (1997, 2002), among many others.

As stated earlier, much of the ESP genre-based approach has followed the pioneering work by Swales (1981, and then revised and amplified in 1990), in which he uses the concept of “move” as a unit of analysis in RA introductions, and that basically consists in the description of patterns of



organisational content and genre-specific language features. Although Swales (1981) does not provide an explicit definition of the term 'move', one can see that he views this notion as a semantic unit which serves his purposes for a genre-analytic approach. Mauranen (1993b) views moves as functional rather than strictly semantic units. Considering functional units are higher abstractions from the text than are semantic, they lend themselves better to comparisons across texts, as is the case of the present study.

Rhetorical moves, as Mauranen (1993b) notes, are meaningful in a rhetorical context, that is, as seen in terms of a rhetorical goal. Since writer's intentions are not directly available for determining the rhetorical goal, the sources that we can use to access these goals are the generic purpose of a text. The generic purpose of the RA abstract is to provide a summary of the content of the accompanying article; and the rhetorical goal which derives from this is to draw readers into reading the accompanying paper. In order to persuade the reader to read the article, the writer needs to present it in a conventionalised form, by using a series of rhetorical strategies or moves. Rhetorical moves consist then of functional text elements, as viewed in relation to the rhetorical goal of a text. Moves manifest themselves as text units that occur in typical sequences.

Swales (1981) discovered that writers of research papers displayed striking similarities in the way they organised their article introductions. On

the basis of some 48 article introductions from a wide range of disciplines<sup>1</sup>, he posited a four-move structure for a typical article introduction:

Move 1: Establishing the research field

Move 2: Summarising previous research

Move 3: Preparing for present research

Move 4: Introducing the present research

In order to realise a particular communicative intention at the level of move, the writer may use different rhetorical strategies or ‘steps’. A step is thus a lower level text unit than the move. In the case of article introductions, in Swales’s (1981) model the writer may decide to realise Move 1 through the following steps:

- a) asserting centrality of the topic, or
- b) stating current knowledge, or
- c) ascribing key characteristics.

Similarly, Move 2 can be realised by using any one or a combination of the following three strategies:

---

<sup>1</sup> In a recent interview (see, Burgess, 2002b), Swales concedes that this model is only applicable to experimental sciences disciplines.

- a) using a strong author-orientation and/or
- b) using a weak author-orientation and/or
- c) using a subject orientation.

For the realization of Move 3, Swales (1981) points out that the author has a choice of three further options:

- a) by indicating a gap (in previous research) or
- b) by question-raising (about previous research) or
- c) by extending findings.

Finally, Move 4 can be realised by either of the following rhetorical strategies:

- a) by stating the purpose of present research,
- b) by outlining the present research.

In response to some criticisms levelled at the descriptive adequacy of this model<sup>2</sup>, in a later publication, Swales (1990) modified his early schema by assigning a structure made up of three moves, which he calls “Create a Research Space” (CARS) model (see Fig. 1).

---

<sup>2</sup> Crookes (1986), for example, found particularly problematic the distinction between Moves 1 and 2, since citations may occur throughout the introduction.

**Move 1 Establishing a territory**

*Step 1 - Claiming centrality* (The writers highlight the interest of their work)

and/or

*Step 2 - Making topic generalizations* (The writers describe what is known  
about their research topic)

and/or

*Step 3 - Reviewing items of previous research* (The writers cite other authors to reinforce  
the importance of their research)

↓  
Declining  
rhetorical  
effort

**Move 2 Establishing a niche**

*Step 1A - Counter-claiming* (Criticism of the weak points of any previous work)

or

*Step 1B - Indicating a gap* (Indication of possible gaps regarding previous work)

or

*Step 1C - Question-raising* (Asking direct or indirect questions)

or

*Step 1D - Continuing a tradition* (The writer presents his/her work as a  
continuation of previous research topic)

↓  
Weakening  
knowledge  
claims

**Move 3 Occupying the niche**

*Step 1A - Outlining purposes* (Indication of the main purpose of the study)

or

*Step 1B - Announcing present research* (Description of the main features of the  
study)

*Step 2 - Announcing principal findings* (Presentation of the main results)

*Step 3 - Indicating RA structure* (Description of the content or structure of the  
rest of the article)

↓  
Increasing  
explicitness

Fig. 1: CARS model for RA introductions (Swales, 1990:141).

In this new version, the most significant change lies in the fusion of Moves 1 and 2 into a single Move 1. Notwithstanding, this revised model has also been the target of further criticism. Bhatia (1993) argues that Move 2 (“summarising previous research”) should have been kept as a separate obligatory move, since the importance of literature review in research reporting has long been well established. This is seen, Bhatia goes on to argue, in the fact that editorial reviews frequently indicate that the author must demonstrate his/her knowledge of the relevant literature, especially if the author happens to be less well established in the field. Furthermore, Duszak (1994) casts doubt on whether the moves are essentially sequential in the model or whether order is a secondary concern.

#### **4. 1. 2. The identification of move boundaries**

With regard to the identification of move boundaries, recent research in genre analysis point to functional rather than formal criteria for assigning discourse values to the various moves (see, for example, Bhatia, 1993: 87). Furthermore, Paltridge (1994) criticises Systemic Functional linguists and ESP researchers for looking at move boundaries in terms of form and content. He argues that these boundaries are often based on intuition and not on descriptions of the way the content is expressed linguistically. Paltridge

(1994: 287) claims that the structural division of texts should be seen as “a search for cognitive boundaries in terms of convention, appropriacy, and content rather than as a search for linguistically defined boundaries”. He thus favours an approach to move boundary identification in terms of cognitive criteria rather than form.

#### **4. 1. 3. Rhetorical structure in relation to textual comprehension**

Several studies in cognitive psychology and discourse analysis such as Carrell et al. (1989) and Salager-Meyer (1991) have shown that textual comprehension diminishes when a text is poorly structured. Salager-Meyer (1990: 370) considers that “a well-structured abstract should state all the four moves which are fundamental and obligatory in the process of scientific inquiry and patterns of thought”, in a logical order, that is, the linear sequence Introduction - Methods - Results- Conclusion / Discussion. Melander et al. (1997: 268) also cites Hartley (1994) who argues that students would be able to process abstracts better if they had a clear structure.

Despite the importance of a clear rhetorical structure in order to facilitate reading comprehension, especially for non-English-speaking background readers, Salager-Meyer (1990) and Froom and Froom (1993), for

example, found that a large number of medical English abstracts lacked one or more of the basic structural units, i.e. I - M - R - C/D.

In this study, the structural elements of the abstracts in both languages will be examined in terms of their well-formedness.

#### **4. 2. The strategy of hedging**

In the social interaction which implies a negotiation between writers and readers, in order to gain community acceptance for a contribution to disciplinary knowledge, the use of hedges becomes an important rhetorical strategy used by researchers (Hyland, 1994; 1998), as it allows for the reduction of the force of scientific claims and presentation of the author as a ‘humble servant of the discipline’ (Myers, 1989: 4). The making of a claim threatens the general scientific audience, because it is a demand for “communally granted credit” (Hyland, 2000: 16). The claim also threatens the negative face of other researchers, because it implies a restriction on what they can do from that moment onwards (Myers, 1989). In this socio-pragmatic dimension hedging is primarily viewed as the process whereby authors mitigate their statements in order to reduce the risk of opposition and minimise the face threatening acts that exist behind every act of communication.

The concepts of *hedge* and *hedging* were initially explored in the 1960s in the areas of logic, philosophy and semantics, and have since then been developed further in Pragmatics. In each of these fields, the term *hedge/hedging* is referred to in a different way. In Pragmatics, a *hedge* is generally defined either as one or more lexico-syntactic elements that are used to modify a proposition. Likewise, the term *hedging* is used to refer to the textual strategies of employing linguistic means such as hedges in a context for specific communicative purposes viz. politeness, mitigation, vagueness and modality (Markannen & Schröder, 1997).

Due to the fact that hedging is a socio-pragmatic phenomenon there is little agreement among linguists about what linguistic devices should and should not be considered as hedges. Whereas some adopt a broad classification (see, for example, Salager-Meyer, 1994, 1998; Hyland, 1994, 1996, 1998; Lewin, 1998), others insist on placing strict limitations (see, for example, Crompton, 1997, 1998).

Instances of hedging have been analysed in a number of academic genres, especially the research article. The abstract, however, has, it would appear, received less attention. Further exploration of the use of hedges, particularly from a cross-linguistic perspective would offer new insights into a rhetorical strategy which appears to be gaining importance in scientific communication.



#### 4. 2. 1. What is a *hedge*?

The word *hedge* is an ordinary language term used technically rather than a fully technical term (Skelton, 1997). The *Longman Dictionary of Contemporary English* (1987: 488), for example, defines this term as “something that gives protection”, and the verb *to hedge* is described as “to refuse to answer directly”. The *Collins COBUILD English Language Dictionary* (1987: 677) defines the function of *hedging* as “If you *hedge* or if you *hedge* a problem or a question, you avoid answering the question or committing yourself to a particular action or decision”. Thus, the ordinary language meaning of *hedge* has to do mainly with such matters as mitigation of certainty, and is thus associated with defensiveness, evasiveness, and the avoidance of personal commitment.

Dictionaries of linguistics do not normally mention either the concept or the term *hedge*. The exception to this is the *Dictionary of Stylistics* (Wales, 1989: 215) which refers to the semantic origin of the concept and classifies it as belonging to the field of discourse analysis and speech act theory. This dictionary defines *hedging* as “qualification and toning-down of utterances and statements in order to reduce the riskiness of what one says”. The motivation for its use is given as “mitigation of what may otherwise seem too forceful” and the desire to show “politeness or respect to strangers and superiors”.

In sum, hedging has been generally taken to mean those expressions in language which make messages indeterminate, that is, they convey inexactitude, or in one way or another mitigate or reduce the strength of the assertions that speakers or writers make. In this study of abstract writing, rather than associating hedging with evasiveness, it is primarily considered as an interpersonal rhetorical strategy used by writers to indicate either a lack of complete commitment to the truth value of a proposition, or a desire not to express that commitment categorically.

#### **4. 2. 2. The origins of the term 'hedge'**

The use of 'hedge' as a linguistic term goes back at least to the early 1970's when Lakoff (1972) published his article "Hedges: A Study in Meaning Criteria and the Logic of Fuzzy Concepts". As Markkanen and Schröder (1997) point out, Lakoff was not interested in the communicative value of the use of hedges but was concerned with the logical properties of words and phrases like *rather*, *largely*, *sort of*, *very*, in their ability "to make things fuzzier or less fuzzy" (Lakoff, 1972: 195). According to Lakoff, *hedges* such as *sort of* typically modify predicates in terms of category assignment. Clemen (1997) notes that it is via *vagueness* and *fuzziness* that Lakoff arrived at the

concept of hedges<sup>3</sup>, and that his primary interest was not the qualitative aspect according to truth but grading. Lewin (1998), however, argues that there are some problems with Lakoff's approach, as his definition of hedges "presupposes a set of factive or true utterances and a set of discrete, lexicogrammatical devices which can dilute the truth value of those utterances, or make them *fuzzy*" (p. 90). But, as Lewin goes on to argue, "natural language concepts have vague boundaries and fuzzy edges and consequently, natural language sentences will very often be neither true nor false, but rather true to a certain extent and false to a certain extent" (Lewin, 1998: 90).

#### **4. 2. 3. More recent approaches to the concept of 'hedge'**

Since the early 1970's the concept of 'hedge' has moved a long way from its origins, particularly since its adoption by pragmatics scholars and

---

<sup>3</sup> Clemen (1997) traces the origins of Lakoff's concept of hedging to Zadeh's (1965) *fuzzy-set theory*. Zadeh had noted that such classes as *animal*, which are initially conceived as having fixed membership criteria, had a "continuum of classification grades". In a fuzzy set, the instance does not merely fit or not, but may fit to a certain extent.

discourse analysts<sup>4</sup>. Although Lakoff's original use of the term was only for expressions that modify the category membership of a predicate or noun phrase, the idea of hedged performatives<sup>5</sup> became then one way of widening the concept of hedges (Markkanen & Schröder, 1997).

In addition to the idea of hedged performatives, the concept of 'hedge' was also widened in another way when hedges were taken to be modifiers of the speaker's commitment to the truth-value of a whole proposition, not just the category membership of a part of it. In other words, hedges (e.g. *perhaps, seem, might, to a certain extent*) were seen as having an impact on larger discourse units.

This broadening of the concept of 'hedge' to elements of discourse has led some researchers to think it necessary to distinguish between two types of hedges. Lewin (1998:91), for example, cites the work of Prince et al. (1982) on hedging in physics discourse. Prince et al. start from Lakoff's definition of hedges as devices that make things fuzzy, but add that there are at least two kinds of fuzziness. One is fuzziness within the propositional content, the other fuzziness "in the relationship between the propositional

---

<sup>4</sup> For an extensive survey of the literature on hedging in the area of pragmatics see Schröder and Zimmer (1997).

<sup>5</sup> Markkanen and Schröder (1997) note that Lakoff himself had already mentioned in his 1972 article that certain verbs and syntactic constructions convey hedged performatives (e.g. *I suppose/guess/think that Harry is coming; Won't you open the door?*), which modify the illocutionary force of the speech act.

content and the speaker, that is the speaker's commitment to the truth of the proposition conveyed" (Prince et al., 1982: 85, as cited in Lewin, 1998: 91). Accordingly, they propose two types of hedges: those that affect the truth-conditions of propositions, which the authors call *approximators* (e.g. *His feet were sort of blue*), and *shields*, which do not affect the truth-conditions but reflect the degree of speaker commitment to the truth value of the whole proposition (e.g. *I think his feet were blue*). A similar distinction is drawn by Hübler (1983, cited in Markkanen & Schröder, 1997: 5), who distinguishes between what he calls *understatements* and *hedges*, although both are devices used for expressing 'indetermination'. For example, a sentence like *It's a bit cold in here* is indeterminate. However, according to Hübler, there are two kinds of indetermination: phrastic and neustic. Phrastic indetermination concerns the propositional content of a sentence, whereas the neustic type is connected to the claim to validity of the proposition a speaker makes. Thus, Hübler distinguishes between *understatements*, i.e. expressions of phrastic indetermination, and *hedges*, i.e. expressions of neustic indetermination. Therefore, a sentence like *It's a bit cold in here* contains an understatement, while *It's cold in Alaska, I suppose* contains a hedge. (Markkanen & Schröder, 1997). In this way, Hübler's division greatly resembles that of Prince et al., whose approximators correspond to Hübler's understatements and shields to his hedges.

Since hedging phenomena have been examined as a pragmatic aspect of communication, divergent views can be found in the literature as to which

lexical and/or syntactic hedging devices should be assigned to individual pragmatic strategies (politeness, indirectness, mitigation, vagueness, understatement) in social interaction.

Interesting research activities have emerged from work in the field of *politeness strategies*. The model proposed by Brown and Levinson (1987) considers *politeness* as an important motivating factor for the use of hedges in spoken discourse. In their view, hedges are mainly used as a strategy or expression of negative politeness with the function of avoiding disagreement. These authors argue that there are a series of lexical and syntactic devices which modify the illocutionary force of utterances that may otherwise seem too forceful. Among these are adverbial-clause hedges (e.g. *in fact, in a sense*), 'If' clauses (e.g. *if you can, if you want*), quality hedges which may suggest that the speaker is not taking full responsibility for the truth of his/her utterance (e.g. *I think/ believe /assume*), modal auxiliaries (e.g. *may, could, can*), quality-emphasising adverbs (e.g. *truthfully, honestly*) or quantity hedges (e.g. *roughly, approximately*). These linguistic devices are used to mitigate the strength of claims, statements and utterances while tending to save face and thus obtain broader acceptance from the listener/reader. Although Brown and Levinson (1987) claim that it is possible to distinguish between acts that primarily threaten the hearer's face and those that threaten the speaker's face, they acknowledge that the latter group of acts are also potential threats to the hearer. Thus, in it, it is the hearer's face-wants that get emphasised. Markkanen and Schröder (1997), however, have pointed out the

possibility of emphasising the importance of hedges for the speaker's own face. They note that the use of hedges may be motivated, for example, by the fear of being proved wrong later on. Being imprecise or mitigating one's commitment to the truth value of a proposition or a claim makes it possible to say, if proved wrong, that the claim was only tentative or an approximation. This explanation is supported by Hübler (1983, cited in Markkanen & Schröder, 1997: 8), who views the motivation for hedges as making sentences more acceptable to the hearer and therefore increasing their chances of ratification. According to Hübler, the function of hedges is to reduce the risk of contradiction. He claims that, in all communication, while showing deference to the addressee, the speaker or writer also tries to protect himself/herself from potential anger, contempt or humiliation. In this way, in some situations, the desire to protect oneself from the potential denial of one's claims may be greater than the desire to show deference to the addressee (Markkanen & Schröder, 1997).

*Modality* is another pragmatic strategy which is associated with hedging. Although the hedging capacity of modal particles as illocutionary modifiers has been recognised, there has been controversy about considering these lexical items as examples of hedges (see, for example, Clemen, 1997). The demarcation of modal particles has proved particularly problematic in part because they have different functions and vary according to context. According to Palmer (1986), the notion of modality is vague and leaves open a number of possible definitions.

That being said, most linguistic approaches to modality differentiate two major subtypes: *deontic* modality<sup>6</sup> and *epistemic* modality; the latter is the subtype of modality which is associated with hedging. Epistemic modality, as defined by Lyons (1977: 797), refers to “any utterance in which the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters”. As Stubbs (1986) remarks, we can see a certain degree of affinity in Lyon’s definition to many of the conceptions of *hedge*, but it is not possible to include in Lyon’s conception of epistemic modality hedges as defined by Lakoff and others who see them as modifying parts of the proposition. However, even these hedges can be included within the realm of epistemic modality if we consider that it is possible to indicate degrees of commitment not only to propositions but also to illocutionary force and to individual lexical items. The concepts of modality and hedge thus overlap to a greater or lesser extent depending on their respective definitions. It seems possible to see the relationship between epistemic modality and hedges in two ways: either modality is the wider concept and includes hedges or it is the other way around; hedging is the wider term and epistemic modality a part of it.

Another concept that cuts across the territory of hedges - and epistemic modality - is *evidentiality*, again depending on how broadly *hedge*

---

<sup>6</sup> *Deontic* modality, according to Lyons (1977: 823) “is concerned with the necessity or possibility of acts performed by morally responsible agents”.



is understood. Chafe (1986: 271) defines evidentiality as “any linguistic expression of attitudes toward knowledge”. According to Chafe, knowledge has various modes: belief, induction, hearsay and deduction, each of which is based on a different source. Most of the examples that Chafe gives as realizations of these different modes are expressions that have also been included in hedges by other linguists (e.g. adjectives of modality, verbs of cognition, modal auxiliaries, modal adverbs). Chafe himself uses the term *hedge* to refer to “markers of low codability” and for expressions that denote that “the match between a piece of knowledge and a category may be less than perfect” (Chafe, 1986: 270). Chafe, whose conception of hedge coincides with that of Lakoff’s, offers *sort of* and *kind of* as examples of hedges.

*Vagueness* is another concept that overlaps with hedging as it refers, among other things, to the use of expressions like *about*, *sort of*, i.e. expressions that denote imprecision in terms of quantity, quality or identity. It is thus very much like Lakoff’s *fuzziness* (see, for example, Channell, 1990).

In scientific writing vagueness has often been seen as a motivating factor for the use of hedges. In order to avoid making categorical assertions the writer will make vague statements if, for example, exact data is missing or if precise information is irrelevant in preliminary results. Hedges thus protect writers from making false statements. This role of hedging as an indicator of vagueness and imprecision has been discussed in the framework

of LSP texts by, for example, Salager-Meyer (1994, 1995), who claims that the association of hedges with evasiveness does not necessarily show confusion or imprecision. On the contrary, hedges, for Salager-Meyer, 1994: 151), can be considered as “ways of being more precise in reporting results”. She also argues that academics may choose to remain vague in their claims to show their readers that they do not have the final word on the subject, revealing that typical features of science are “uncertainty, skepticism and doubt”. Taking this into consideration, hedges, because of their mitigating and evasive effect, can increase the credibility of a statement in academic texts.

While early research on hedging concentrated on spoken language, from the end of the 1980s onwards, attention has shifted more to written discourse. Over the last decade, there has been an increasing interest in cross-cultural studies which have analysed the phenomenon of hedging in academic texts. Ventola and Mauranen (1990) found that Finns writing in English showed less variation in expressions of epistemic modality than did native speakers of English. Clyne’s (1991) interlanguage study of German scholarly writing in English revealed that German writers hedge more both in their native language and in English than do native speakers of English. Following the work by Clyne (1991), Kreutz and Harres (1997) analysed the distribution and function of hedging in English and German academic writing, and found that while hedges serve to downtone and mitigate arguments in English texts, their main function in German writing may be one of “assertion and authority”. Vassileva (1997) examined hedging in English and Bulgarian

research articles. Her results revealed differences in the distribution of hedges throughout the research articles and in the means of realising hedging in both languages. The results of all these studies point to the view that the pragmatics of hedging is culturally determined.

In sum, since Lakoff's (1972) early work on hedging, the concept itself has broadened and varying positions have emerged from research areas such as politeness, mitigation of speech acts and linguistic vagueness. These various approaches have pointed to a great variety of motives in using hedging devices, for instance, face-saving strategies intended to obtain speaker's or writer's acceptance, mitigation and modification of utterances, avoidance of commitment and intentional vagueness.

Through this extension, the concept of hedge has overlapped with several other concepts. What seems to be clear is that the varying categorizations at the present stage, enriching as they are, present considerable problems when it comes to the analysis of corpora of academic texts.

#### **4. 2. 4. Hedging in scientific discourse**

The fact that hedges are in fact used in academic discourse, which is supposedly characterised by its rationality and neutrality, points to the fact

that scientific texts are not merely a collection of conventions that can be explained in terms of the norms for conveying scientific information. Scientific texts have been shown not only to be content-oriented and informative but also as seeking to convince and influence their audience. As Markkanen and Schröder (1997) note, referring to classical rhetoric, the formulation of a scientific text is not merely a question of *pragma* and *docere* (instructing, informing) but also of *delectare* (entertaining) and even of *movere* (moving, enchanting). Thus, in addition to getting to the point (*pragma*), a text should also convey the reliability of the author (*ethos*) and even move the reader emotionally (*pathos*). The last two, *ethos* and *pathos*, are closely connected to hedging.

An increasing number of research studies on a variety of disciplines has been able to demonstrate just how academic discourse is both socially-situated and structured to accomplish rhetorical objectives<sup>7</sup>. In this research tradition, politeness has been seen as the main motivating factor for hedging, because as Myers (1989: 5) states “scientific discourse consists of interactions among scientists in which the maintenance of face is crucial”. Myers (1989) applied Brown and Levinson’s (1987) model to a corpus of biology RAs and found that some of the politeness strategies that are used in spoken interaction can be extended to scientific texts. He argues that in scientific

---

<sup>7</sup> For some examples of recent work on hedging in the field of LSP, see Hyland (1994, 1996, 1998), Salager-Meyer (1991, 1994, 1998a), Skelton (1997), Meyer (1997), Lewin (1998).

discourse the making of claims, and even the mere act of presenting one's findings, threatens the negative face of other researchers. As a result, the use of politeness strategies (e.g. hedges) is frequent in a bid to mitigate Face Threatening Acts (FTAs) involved in the social interactions between writers and readers.

The minimization of FTAs in order to avoid potential criticism has received due emphasis in the analysis of academic texts. Hedging also allows writers to express propositions with greater precision, thus acknowledging the impossibility of exactly quantifying the world (see Salager-Meyer, 1994; 1995; 1998). They are thus more likely to gain reader acceptance of claims (Hyland, 1996; 1998).

In their studies of academic writing, Markkanen and Schröder (1997) see hedges as modifiers of the writer's responsibility for the truth value of the propositions expressed, as modifiers of the weightiness of the information given, or of the attitude of the writer to that information. According to these authors, hedges can even be used to conceal the writer's attitude, suggesting that "hedges offer a possibility for textual manipulation in the sense that the reader is left in the dark as to who is responsible for the truth value of what is being expressed" (Markkanen & Schröder, 1997:6). They go on to comment that when this kind of purely functional starting point is adopted, there is no limit to the linguistic expressions that can be categorised as hedges (e.g. the use of certain pronouns and avoidance of others, the use of impersonal expressions, the passive and other agentless constructions, in

additions to the use of modal verbs, adverbs and particles, which are usually included as hedges). Kreutz and Harres (1997), for example, similarly consider the agentless passive constructions as hedging devices. Clearly, the difficulty with these functional definitions is that almost any linguistic item or expression can be interpreted as a hedge<sup>8</sup>. Furthermore, one can assume that no linguistic items are inherently “hedgy” but can acquire this quality depending on the communicative context in which they occur, with the result that no clear-cut lists of hedging expressions are possible.

Lewin (1998) has pointed to the possibility that specific types of hedges might be associated with particular genres. This has been shown, for example, by Salager-Meyer (1991), who analysed the frequency of occurrence and distribution of hedging devices across various genres (research papers, case reports, reviews and editorials) in the field of medicine. Her findings showed that editorials and reviews are more heavily-hedged than research papers and case reports, that *shields* are the most frequent strategies in editorials and reviews, whereas the *passive voice* is the prevalent hedging strategy in research papers and case reports.

Since work in the discourse analysis of academic texts has revealed

---

<sup>8</sup> For a discussion on how the concept of hedging can be viewed from different perspectives, see the critical analysis by Crompton (1998), Salager-Meyer’s (1998) reply to it, and further responses by Crompton (1998) and by Salager-Meyer (2000).

disciplinary variation<sup>9</sup>, one might assume that there is also variation according to field in terms of hedging. Spillner (1983, cited in Markkanen & Schröder, 1997: 12) holds that in texts in which the use of experimental data and logical deduction are not so important, style becomes an essential element in achieving credibility. However, recent findings (see, for example, Hyland, 1998) suggest that the differences in the use of hedges between texts from different fields are not so great as might be expected. Instead, for Hyland, hedging is not an inherent characteristic of a text or discipline but a product of writer-reader relations.

#### 4. 2. 5. Towards a taxonomy of hedging devices

Hedging in academic writing can be expressed by means of various lexical, grammatical and syntactic devices depending on how broadly we understand the term. There are some functionally-based reductionist approaches, such as Crompton's (1997, 1998) that consider *hedge* as a concept reserved for expressions of epistemic modality with the sole function

---

<sup>9</sup> As Becher (1989: 20) has observed, "the attitudes, activities and cognitive styles of groups of academics representing a particular discipline are closely bound up with the characteristics and structures of the knowledge domains with which such groups are professionally concerned". MacDonald (1994), in her study of textual practices in the humanities and social sciences, has suggested that there is disciplinary variation in the way writers present arguments.

of avoiding commitment. Most of the researchers on the notion of hedging are, however, unwilling to see form and function as inextricably linked, but prefer to read certain forms as hedges in certain contexts but not in others. One such researcher is Salager-Meyer (1994, 1998, 2000), who favours an eclectic approach which includes various manifestations of the concept. In her 1994 paper, she argues that many studies of hedging have not placed enough emphasis on the fact that hedges are primarily the product of a mental attitude and have looked for prototypical linguistic forms for their realization without considering that these linguistic forms may not always have a hedging function. Salager-Meyer also suggests that “the only way to identify hedging devices is by means of introspection and contextual analysis with the help and advice of an expert in the discipline analyzed” (Salager-Meyer, 1998: 298).

If hedging is the product of a mental attitude (as posited by Salager-Meyer, 1994; 1998; 2000), and therefore a subjective phenomenon which functions in a particular context, it is not surprising that, as mentioned earlier, there is so little agreement -among those who seek to establish the category- on which lexical items, phrases or syntactic structures should be classed as hedges and which attributes a word or phrase should contain to function as a hedge in a given context (Clemen, 1997: 237). Clemen (1997: 243) himself provides a list of the most frequent hedging devices, such as epistemic qualifiers, certain personal pronouns, indirect constructions, parenthetical constructions, subjunctive / conditional, concessive conjuncts, negation. Hyland (1994: 240), for example, includes “If”-clauses, questions and time



references. The use of passive, agentless and impersonal constructions has also been classified as a hedging device by many authors (e.g. Markkanen & Schröder, 1997; Salager-Meyer, 1998; Clemen, 1997).

In addition to lexico-syntactic items, other authors such as Hyland (1996, 1998) have pointed to the existence of other discourse-based strategies that weaken scientific statements by limiting the confidence invested in the claims made for the research. Hyland refers to those cases in which the writers draw attention to the limitations of the model, theory or method used, an effect which is often achieved by “commenting on the difficulties encountered”, the “shortcomings of findings” or “the possibility of alternative explanations”.

Along the same lines, Lewin (1998) claims that in the discourse stratum the realizations of certain optional genre structures (moves/steps) can be considered as hedges since their function is to protect the author from possible attack (e.g. “establishing the gap the present research is meant to fill” or “offering implications for future research”).

#### **4. 2. 6. A proposal for a classification of hedging devices**

The taxonomy of hedging devices which I propose in this study draws

on the different classifications that can be found in the literature. For the analysis, I have primarily considered the socio-pragmatic context in which hedges occur, as it appears that it is virtually impossible to attribute a function to a hedge without considering both the linguistic and situational context.

A preliminary analysis of the corpus revealed that the linguistic devices which the writers in both languages use at a lexico-grammatical and syntactic level for the explicit function of hedges can be described as realising the following basic strategies:

1. Strategy of **indetermination**, by giving a proposition a colouring of lesser semantic, qualitative and quantitative explicitness as well as of uncertainty, vagueness and fuzziness. This strategy may comprise:

- 1.1. *Epistemic modality*, which can be realized by means of
- Modal auxiliary verbs expressing possibility<sup>10</sup>, such as *may, might, can/poder*.
  - Semi-auxiliaries such as *to seem, to appear/parecer*.
  - Epistemic lexical verbs such as *to suggest/sugerir, to speculate/especular, to assume/asumir*, that is,

---

<sup>10</sup> The subjunctive mood of the verbs in Spanish is included in this sub-type. Moreover, I have included the conditional mood in Spanish, which I have taken as an equivalent to the form *would* in English. I should also mention that, in this study, modals expressing ability were not recorded as hedges (e.g. “The results obtained *could* not be compared...”).

verbs which relate to the probability of a proposition or hypothesis being true.

- Verbs of cognition such as *to believe, to think/creer*.
- Modal adverbs (*perhaps/quizás, possibly/posiblemente, probably/probablemente*).
- Modal nouns (*possibility/posibilidad, assumption/suposición, suggestion/sugerencia*).
- Modal adjectives (*possible/posible, probable, likely/probable*).

1.2. Approximators of quantity, frequency, degree and time<sup>11</sup> such as *generally, approximately, most, relatively, frequently, varios, la mayor parte, prácticamente, recientemente, etc.*, as proposed by Salager-Meyer (1991, 1994, 1998), which indicate an unwillingness to make precise and complete commitment to the proposition expressed.

---

<sup>11</sup> All these adverbial expressions have been recorded as hedges realising the strategy of indetermination, although it should be noted that not all approximators serve to make things vague, but to express propositions with greater precision (see, for example, Salager-Meyer, 1994, 1995; Hyland, 1996, 1998).

2. Strategy of **camouflage** hedging (as proposed by Namsaraev, 1997). The devices used under this strategy include:

2.1. *Metalinguistic operators*, that is, extra-clausal disjuncts such as *really, actually, in fact, it is obvious that..., strictly speaking, generally speaking, to some extent*, which indicate the standpoint from which the writers might evaluate the truth of a claim<sup>12</sup>. These expressions, thus, appeal to the reader, presupposing agreement with the proposition made by the writer. They also function to provide argumentative support for the claims expressed.

---

<sup>12</sup> In the view of many researchers these items may not be considered as hedges, as long as they are elements which can act to intensify a proposition. But, as Namsaraev (1997) remarks, all these items are hedges when interpreted pragmatically as a strategy provoking a displacement of the focus of reader's attention/negative reaction from the proposition to these metalinguistic operators. Namsaraev argues that the possible negative reaction of a reader/hearer to the statement "a penguin is a bird" will mostly be: "No, it is not true. A penguin is not a bird because it does not fly". However, he remarks that when the speaker/writer disguises his/her utterance and says: "It is clear/ obvious, that a penguin is a bird" the reader's/hearer's reaction might be different: "No, it is not clear. It may be that a penguin is a bird, but it is by no means obvious" (Namsaraev, 1997: 69).

3. Strategy of **subjectivisation**. This includes:

3.1. The use of first personal pronouns (I/we) followed by verbs of cognition (think, believe) or performative verbs (suppose, suggest), that can be interpreted as the writers signalling that what they say is simply their personal/subjective opinion. In this way, the writers show respect for the reader's alternative opinion and invite the reader to become involved in the communicative situation.

In this subcategory, I have also included those expressions constituted by other first person pronouns (i. e. *our, my*), that is, linguistic devices which express the author's personal doubt and direct involvement such as *to our knowledge, in our view, in my experience* (as proposed by Salager-Meyer, 1991, 1994).

3.2. Quality-emphasising adjectival and adverbial expressions such as *extremely interesting, particularly important; de gran utilidad, resultados esperanzadores*, that is, expressions which are equivalent to what Salager-Meyer (1991, 1994, 1998) terms as “emotionally-charged intensifiers” which are used to convince the readers of the importance / truth of the propositions expressed, by

revealing the writer's emotional state. At the same time, these expressions can be considered as a positive politeness strategy (Myers, 1989) as they show solidarity with the discourse community by exhibiting responses that assume shared knowledge and desires.

4. Strategy of **depersonalisation**. This refers to those cases in which the writers diminish their presence in the texts by using various impersonal, agentless and passive constructions in order to relieve themselves of responsibility for the truth of the propositions expressed. This strategy is syntactically realised by means of:

4.1. *Agentless passive and impersonal constructions*<sup>13</sup> such as *an attempt was made to see..., it seems/appears that...; se ha efectuado un análisis de..., se concluye/demuestra que...*

---

<sup>13</sup> In this study, I have only recorded the agentless passive constructions which refer to those cases in which the author is the implied agent, i.e. when the authors avoid the use of first person pronouns which serve to indicate a full commitment for the propositions expressed. For example, when the authors use constructions such as “In this study the phenomenon X was examined” instead of “In this study I/we examined the phenomenon X”, or “The data was analysed” instead of “I/We analysed the data”.

4.2. *Impersonal active constructions* in which the personal subject is replaced by some non-human entity such as *findings, results, data*, as in the following examples: *The findings suggest/ reveal..., these data indicate...; los resultados mostraron/sugieren...*

### **4. 3. Personal Attribution in Academic Discourse**

As Hyland (2001) has noted, the use of impersonality has traditionally been proposed by most manuals and textbooks as a means of demonstrating a grasp of scholarly persuasion and allowing the research to speak directly to the reader in an unmediated way. Be that as it may, from the point of view of exploring interaction in academic texts, a great deal of recent research (e.g. Ivanic, 1998; Tang & John, 1999; Kuo, 1999; Hyland, 2001; Samraj, 2002a) has suggested a growing trend away from the traditional notion of scientific writing as distant and impersonal, towards a recognition that this type of writing need not be totally devoid of the writer's presence. In fact, the choice of announcing the writer's presence in academic discourse is a rhetorical strategy that is increasingly used by the members of the international English-

speaking community.

Cherry (1998) recognises the important role of self-representation in written discourse. He argues that self-representation in writing is a subtle and complex multidimensional phenomenon that skilled writers control and manipulate to their rhetorical advantage, and that decisions about self-portrayal vary according to the way in which writers characterise their audience and other factors in the rhetorical situation. Cherry traces the origins of the examination of self-portrayal in Aristotle's *Rhetoric*. As mentioned earlier, for Aristotle, *ethos* is one of the three means of persuasion (*pathos*, *logos* and *ethos*), which refers to the need for rhetors to portray themselves to the audience as being of good moral character in order to achieve credibility and thereby secure persuasion. Thus, an important aspect of *ethos* involves assessing the characteristics of an audience and constructing the discourse in such a way as to portray oneself as embodying those same characteristics (Cherry, 1998: 388).

In the social constructionist perspective on scientific discourse, self-representation is understood as playing a significant role. Groom (2000), in his analysis of manifest intertextuality in academic writing, shows the importance of making explicit the textual voice of the writer him/herself, and encourages writers to clearly signal when they are reporting the voice of an antecedent author or when they are expressing their own views. Kuo (1999), in his empirical study of personal pronouns in scientific journal articles, investigates how the use of personal pronouns may reveal writers' perceptions



of their own role in research and their relationship with expected readers as well as with the scientific-academic community. The author points out that a knowledge of the strategic use of personal pronouns is of great value to writers as it allows them to emphasise their personal contributions to their field or research and to seek cooperation and stress solidarity with expected readers and their disciplines. This view is reinforced by Hyland (2001). In his study of personal attribution in research articles in eight different disciplines ranging from hard to soft sciences, Hyland reports a high proportion of personal pronouns in social sciences and humanities (soft-knowledge disciplines). He concludes that this trend towards the use of personal pronouns in scientific texts shows them to be a valuable rhetorical strategy which can help construct a credible image for writers by presenting an authorial self firmly established in the norms of the discipline and reflecting an appropriate degree of confidence and authority. Tang and John (1999) also recognise that a writer's identity in academic texts is created by and revealed through a combination of her/his many discursal choices, mainly the writer's use of first person pronouns. These authors consider that it is vital for students and teachers to be aware of the very real presence of the different ways in which the first person pronoun can be used in academic writing.

The use of first person pronouns has also been explored in the RA abstract from a cross-disciplinary perspective: Peck-MacDonald (1994), in her study of academic writing in the humanities and social sciences, examined entities occupying the subject category including first person pronouns.

Samraj (2002a), in her analysis of abstracts in two related fields (wildlife behaviour and conservation biology), revealed that the use of first person pronouns in sentence subject position presents significant variation in this linguistic choice across the two disciplines. Melander et al. (1997), in their comparison of RA abstracts from three disciplinary fields (i.e. biology, medicine and linguistics), and from a cross-disciplinary and cross-cultural perspective (English/Swedish), also reported variation across the disciplines and cultural backgrounds.

In sum, in order to establish themselves as competent and credible members of the discourse community, writers may choose to make explicit their authorial presence in the text by taking full responsibility for their claims (mainly with the use of first person pronouns), or they may opt for using an impersonal style as a strategy to seek approval and acceptance by appealing modestly to both editors and peer researchers. The choice between these two approaches often causes confusion among both novice English-speaking writers and learners of English as a second language. What is clear is that writers' decisions are related to social practices of a specific disciplinary community, and these rhetorical conventions may vary cross-culturally.

#### 4. 4. The Rhetorical Management of Academic Conflict

We saw that in Swales' (1990) model Move 2 involves the creation of a research space. One means by which such a space is created is through the making of counterclaims (i.e. alternative claims to those made in the literature they review) and/or indicating a knowledge gap in reference to previously published work. These rhetorical strategies involve the criticism of members of one's own discourse community.

The importance of this issue in the area of scientific communication is made patent by the growing body of studies of written academic discourse (see, for example, Kourilova, 1996; Belcher, 1995; Swales, 1990; Myers, 1989; Salager-Meyer, 1998b, 1999, 2001; Motta-Roth, 1998; Hyland, 2000; Burgess & Fagan, 2002; Salager-Meyer et al., 2003), focussing on this interpersonal pragmatic feature commonly referred to as *professional disagreement* or *academic conflict*. These studies have examined both the way in which knowledge claims are realised and how these claims are framed, and have shown that the rhetorical strategies used by writers to convey critical speech acts may range from blunt criticism to the use of subtle hedging devices. Most of these studies have also arrived at the conclusion that blunt criticism is offensive and threatening in contemporary research articles and that the use of hedges is frequent in order to protect oneself from personal attacks. As Becher (1989: 99) has also remarked, in relation to

academic criticism in the humanities: “mutual criticism is polite, perhaps out of self-protection”.

Hunston (1993), Kourilova (1996) and Motta-Roth (1998), among others, have noted that the frequency and type of linguistic strategies used to convey academic conflict (AC) may vary across genres. These authors, for example, have concluded that criticisms of earlier research in journal articles are much more subtle and implicit than critical speech acts in books reviews and referees’ comments on manuscripts submitted for publication. Some of these studies have also revealed that the rhetorical strategies used to convey disagreement are discipline-specific (cf. Salager-Meyer, 1998b; 1999). Along the same lines, Hyland (2000), in his analysis of the book review and the academic paper genres, found differences in the number of critical references. Hyland noted that reviews are evaluative by definition and therefore involve a higher degree of personal conflict, as they represent a direct challenge to a specific author. Hyland also observed that criticism was more frequent than praise in the social sciences as opposed to the hard sciences.

Salager-Meyer (1998b, 1999) analysed academic criticism in the discipline of medicine from a diachronic perspective (19th- and 20th centuries), observing a clearly defined evolution of AC over time. Her results revealed that 19th and early 20th century AC are mostly of the direct and personal type (i.e. the name/s of the criticised author/s are explicitly mentioned in the text), while their mid- and late 20th century counterparts mainly make use of indirect and impersonal AC (i.e. the target of criticism is

the scientific community in general or an inanimate agent). Also, from a diachronic and cross-linguistic perspective (French and English), Salager-Meyer (2001) found that, in general terms, AC is more frequent in French than in English medical discourse, and that 19th - century French and English AC was expressed similarly (highly personal, polemical and provocative). She found that 20th - century French AC, on the other hand, has remained highly personal and categorical, whereas 20th - century English AC is characterised by caution and politeness and by the shifting of conflict responsibility onto some inanimate entity (e.g. data, results). In a more recent publication, Salager-Meyer et al. (2003) compared Spanish, French and English medical articles also from a diachronic perspective (1930-1995). They found that although French and Spanish scientists tend to be more authoritarian and personal in their formulation of AC than their Anglo-American counterparts, from 1990s onwards, the rhetorical management of Spanish AC has begun to be realised differently from French AC in that there is now a more indirect tone, typical of English AC.

The issue of academic criticism has been examined, from a cross-cultural perspective, by other authors such Duszak (1994, 1997), who analysed the introductions to linguistic papers written by Polish and Anglo-American academics. She found different strategies for criticising previous research, namely that Polish authors make use of fewer critical speech acts and often resort to face-saving devices to mitigate the negative tone of whatever criticisms they do in fact make. Cmejrková and Danes (1997)

arrived at similar conclusions as regards Czech and English-speaking academic writers. Taylor and Chen (1991) and Bloch and Li (1995) found that, in contrast to Anglo-American writers, Chinese academics tended to avoid the indication of research gaps in their paper introductions and thus also avoided AC. Along the same lines, Ahmad (1997), in her analysis of research article introductions in Malay, observed the frequent omission of Move 2, in terms of Swales (1990), once again with the concomitant avoidance of AC. This tendency to delete Move 2 has also been reported by Burgess (1997, 2002) as a feature of introductions of research papers written by Spanish academics. The findings of all these studies indicate that the frequency of occurrence and forms of academic criticism are culturally variable.

Most of the studies cited have focused on analysing AC in the various units of the macro-structure of the research article or in other genres such as reviews and editorials. The abstract, nevertheless, has been neglected altogether from the point of view of academic criticism. In this study, I attempt to contribute to this area of research by analysing the phenomenon of AC in the RA abstract from a cross-linguistic perspective (English/Spanish) in the social sciences.

#### 4. 4. 1. A taxonomy of rhetorical strategies used to convey academic conflict

The taxonomy used in this study for the analysis of the instances of academic conflict<sup>14</sup> builds on Salager-Meyer's (1998b, 1999, 2001) work on academic criticism in medical discourse. Salager-Meyer makes a distinction between *Personal* and *Impersonal* criticisms. In the former the name/s of researcher/s who is/are the target of the criticism can be found somewhere in the text, whereas in the latter the criticism is directed towards a particular position or the discourse community as a whole. It should be noted that in this study, those cases in which the name of the author, who is the target of criticism, is mentioned in the accompanying research article but it is not explicitly mentioned in the abstract are considered as instances of *Impersonal* AC. Examples 1, 2, 5, 6, 9, 10 below illustrate cases of *personal* AC, whereas examples 3, 4, 7, 8, 11, 12 refer to those cases in which there is *impersonal* AC.

The two types of AC can be divided into two further categories:

---

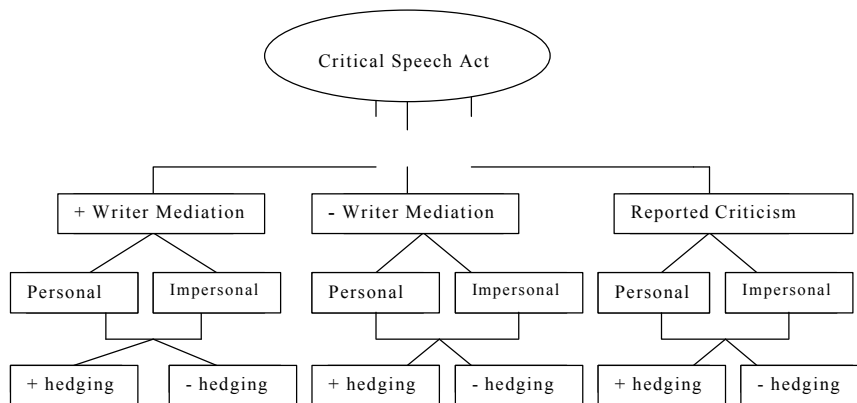
<sup>14</sup> This taxonomy of rhetorical strategies to convey academic criticism in scientific texts, as presented in Fig. 1 in this section, draws from a broad multidisciplinary research project (Project number 1802-640103) funded by the University of La Laguna. The members of the research team were: Sally Burgess, Lourdes Divasson Cilveti, Carmen M. Benítez González, Anna Fagan Vasta, María S. García Martínez, Maribel García Expósito, Nayra Hernández González, Isabel K. León Pérez, Derly León Pérez, Alejandro F. López de Vergara y Méndez and Pedro A. Martín Martín.

*Direct* and *Indirect* criticism, as described by Salager-Meyer (1998b, 1999, 2001). The former refers to those instances in which there is a categorical criticism, whereas the latter refers to those cases in which the criticism is mitigated by means of hedges. In this study, these two categories have been termed - *hedging* (direct AC) and + *hedging* (indirect AC), following the terminology proposed by Burgess and Fagan (2002). In examples 1, 3, 5, 7, 9, 11 below there are linguistic exponents of - *hedging* AC, whereas examples 2, 4, 6, 8, 10, 12 illustrate cases of + *hedging* AC.

The model used in this study also considers a third dimension, as described in Burgess and Fagan (2002). This accounts for the presence or absence of writer mediation in the criticism. Following Cherry (1998) and Hyland (2001), the term *writer mediation* is used in this model to refer to those cases in which writers are explicitly present in the critical speech act, that is, when writers take full responsibility for the criticism towards other authors or previous research in general. This is lexically realised by means of the first person pronouns (I/we, my/our, me/us). Examples 1, 2, 3, 4 illustrate those cases of + *writer-mediation* and examples 5, 6, 7, 8 refer to those cases of - *writer-mediation*.

This taxonomy also considers those cases in which there was not only presence or absence of writer-mediation but in which, rather than making the criticism herself/himself, the author merely reports the criticism made by another author. This is seen as the opposite end of the continuum from +





**Figure 1. A taxonomy of rhetorical strategies**

*writer-mediation*, and is termed *reported AC*, as in examples 9, 10, 11, 12.

The model presented by Burgess and Fagan (2002), as seen in Fig. 1, has, then, three dimensions: i) the writer, who has several options for conveying AC (with or without writer mediation, or reported), ii) the author, that is the target of criticism (personal or impersonal), and iii) the act of criticising itself (with or without hedges).

The invented examples below are illustrations of each of the rhetorical strategies which are seen in Figure 1. The instances of first person pronouns are in bold type and I have also italicised the elements in the examples that function as hedges and, therefore, mitigate the critical speech acts.

**Example 1** (*Writer-mediated, personal, without hedging*)

Acosta's (2000) approach was not included in our study because we consider it is based on a narrow, potentially biased sample.

**Example 2** (*Writer-mediated, personal, with hedging*)

Acosta (2000) has suggested that this task provides an adequate measure. *Strictly speaking*, however, I believe it only serves to measure a restricted range of competencies.

**Example 3** (*Writer-mediated, impersonal, without hedging*)

However, we disagree with the definitions given in the majority of published work in this area, as none has dealt satisfactorily with the issue of divergence.

**Example 4** (*Writer-mediated, impersonal, with hedging*)

My examination of the literature has revealed that *few* significant studies of this phenomenon have been conducted.

**Example 5** (*No writer-mediation, personal, without hedging*)

The results found in this study contradict the findings of Acosta, (2000) who argues that...

**Example 6** (*No writer-mediation, personal, with hedging*)

Acosta's (2000) results are presented *somewhat* oddly and, therefore, *might* be open to misinterpretation.

**Example 7** (*No writer-mediation, impersonal, without hedging*)

On the surface this general assumption appears to be convincing. However, it is essentially reductionist.

**Example 8** (*No writer-mediation, impersonal, with hedging*)

Unfortunately, *few* researchers have studied this aspect of academic discourse.

**Example 9** (*Reported criticism, personal, without hedging*)

Martín-Martín (2001), reviewing the available literature, objects to Acosta's (2000) definition of...

**Example 10** (*Reported criticism, personal, with hedging*)

Data from Acosta's (2000) study *may* not be *entirely* reliable (Martín-Martín, 2001).

**Example 11** (*Reported criticism, impersonal, without hedging*)

Martín-Martín (2001) has pointed out that there is no clear relationship between explicit teaching and competence in

abstract writing.

**Example 12** (*Reported criticism, impersonal, with hedging*)

Martín-Martín (2001) noted that there is *very little* empirical work on this aspect of academic discourse.

Although in this study instances of all types of rhetorical strategies for conveying AC have not been found, the illustrations above of all the possible options can serve to better understand the three dimensions that operate in this model.

## *Chapter 5*

---

### **Research Data and Methods**

#### **5. 0. Introduction**

In the first section of this chapter, I describe the composition of the corpus which forms the data for this study and discuss the comparability of the material in both language groups. I also argue for the validity of the corpus size.

In sections 5.2. and 5.3. I explain the criteria for the choice of journals, and describe how the corpus, both in English and Spanish, was obtained.

Finally, in section 5.4. I give an account of the four types of analyses of the data. In addition, I report on the validation of the analyses that have been carried out in this study.

### **5. 1. Composition of the corpus**

A random selection of 160 RA abstracts written in English and Spanish in the disciplines of phonetics and psychology were selected for the present study. Full bibliographical details of the texts and their explicit analyses are given in the appendices to this thesis.

With the purpose of verifying the equivalence of both groups of abstracts in terms of the average number of words, sentences and paragraphs, I carried out a preliminary quantitative analysis of the texts in both languages. The results of these analyses, as can be seen in Table 1 (Chapter 6, section 6.1.), showed that the average length and mean number of sentences are slightly higher in the English texts, although this difference is not great enough across the two groups for it to be regarded as a relevant factor.

The overall sample makes a total of 24,537 running words. As regards the validity of corpus size, I have followed Fox's (1999) observation, as quoted in Salager-Meyer (2001), that a representative sample size for a domain in specific corpus is between 20,000 - 30,000 running words.

## 5. 2. The English corpus

The corpus in English is made up of 80 abstracts selected at random from publications in international journals published over a period of fifteen years (1985 - 1999), thus controlling for any rapid changes in terms of discourse practices within any of the disciplines.

In order to have a corpus that is also representative in terms of the status of the publication, the sample was drawn from prestigious journals in the social sciences: 40 abstracts were selected from two leading international journals in the field of phonetics: *Phonetica* and the *Journal of Phonetics* (see Appendix A). Likewise, the other 40 abstracts were selected from two international journals in the field of psychology: *The British Journal of Psychology* and *Applied Psycholinguistics* (see Appendix B). For the selection of these particular journals I primarily considered their importance for the disciplinary community by following the recommendation of specialist informants. I also took into account the frequency of use of these journals in the Humanities and Social Sciences Library of the University of La Laguna by consulting their data base on the frequency with which journals are consulted. Another approach that I considered was the ranking of journals by impact factor in the Journal Citation Report (Social Science edition), but I ultimately decided that it was not appropriate in a cross-linguistic study such as the one reported here since the Spanish journals are generally not indexed. As for the representativeness of the texts, I took for granted that all the

writers, whether native speakers of the English language or not, conformed to the rhetorical practices of the international English-speaking academic community as the abstracts (and associated research papers) had been accepted for publication by the editorial board of the journal.

In the early stages of this study, I considered the possibility of analysing the two disciplines (phonetics and psychology) as different groups of texts. However, a survey analysis of the pragmatic features under study revealed that there was no significant variation between the two disciplines in English which would justify considering them as separate groups. Consequently, in this study, both disciplines are regarded as a single group for the purposes of the analyses.

### **5. 3. The Spanish corpus**

Another 80 abstracts constitute the Spanish corpus which was similarly selected from leading Spanish journals in the disciplines of phonetics and psychology.

Some limitations arose in the process of selection of the phonetics texts as a result of the fact that there are only two journals in this discipline in Spain. The first is *Folia Fonética*, of which one issue was produced in 1984. From this issue I drew the five abstracts that accompanied the only five



research articles written in Spanish (the remaining abstracts and the associated papers were written in Catalan). The second journal is *Estudios de Fonética Experimental*, which published its first issue in 1985. Since then it has been regularly publishing one volume per year, with the exception of the years 1987, 1989, 1991 and 1992. However, it should be noted that the first volumes (I, II, III and IV), corresponding to 1985, 1986, 1988 and 1990 respectively, did not include abstracts accompanying the articles. It was volume V, corresponding to 1993 which contained abstracts together with the articles for the first time. Therefore, the other 35 abstracts out of the total of 40 that make up the sample of phonetics texts (see Appendix C) were drawn at random from this second journal, covering the years of publication 1993 - 1999.

As the Spanish psychology community is relatively larger than the Spanish phonetics community, there was a greater variety of journals available. Following the selection criteria described above for English, the other 40 abstracts that constitute the corpus in Spanish were also randomly selected from two of the most prestigious Spanish Psychology journals: *Psicológica* and *Análisis y Modificación de la Conducta*, published in the period 1985-1999 (see Appendix D).

As preliminary analyses suggested that there were no significant differences between the results found in each of the disciplines, all the Spanish abstracts were also considered as belonging to a single group representing the area of experimental social sciences, thus providing a Spanish corpus of a

total of 80 abstracts drawn from four different journals.

Although there is no exact equivalence between the English and Spanish Phonetics texts regarding the years of publication and number of instances drawn from each journal, the two parts of the corpus can be regarded as analogous.

#### **5. 4. Procedures**

The procedures that I followed in the analysis of the four different types of linguistic features that I examine in this study are described in the following subsections. These procedures can be considered to follow a top-down approach, in the sense that I started with the analysis of the macrostructural elements of the abstracts and then looked into other functional units at a lower level, i.e. moves and steps; and socio-pragmatic features, i.e. hedges, first person pronouns and critical speech acts. This approach aimed at facilitating a comprehensive analysis and description of text rhetorical features including the relationship between the linguistic form and the communicative functions of the texts analysed.

#### **5. 4. 1. Analysis of the rhetorical structure**

The analysis of the the data was carried out in two stages. In the first phase, I undertook the description of the rhetorical structure or macro-structure of the abstracts by examining the overall textual organization of each abstract, following Swales (1981, 1990), Dudley-Evans (1986), Salager-Meyer (1990) and Santos (1996), among others. Then, assuming that the abstracts written in English represent the macrostructure of the accompanying article (Introduction-Methods-Results-Conclusion/Discussion), I proceeded to check, through a preliminary analysis, that these structural units were, in fact, present in both the English and Spanish groups of abstracts. Next, I continued with the delimitation of the textual boundaries of these units primarily on the basis of semantic or functional criteria rather than linguistic form. After comparing my analysis with those of my co-analysts, in each case complete agreement was reached after discussion. The highest level of discrepancies occurred in the identification of the Results and Conclusion units, particularly when these two units coalesced into a single final element. In the end, we opted for identifying as Results those units related to the research methodology where the results were directly presented with no interpretation, whereas a close relationship between the Conclusion unit and the purpose of the research was observed.

In the second stage of this study, once the macro-structure of the abstracts was clearly defined, it was observed that the rhetorical units of the

macro-structure in both groups of texts presented a certain degree of complexity in terms of rhetorical options. It was felt that, in order to explore the rhetorical strategies used by writers in both languages to present their claims in the abstracts, a more detailed descriptive apparatus was needed. Therefore, with the aim of investigating comparatively the frequency of use and types of the functional units (moves), I proceeded to carry out a move analysis in each of the structural units previously identified in both groups of abstracts, and tried to describe how such units were used for rhetorical purposes. For the analysis into moves of the Introduction unit, I applied Swales's (1990: 141) CARS model for the analysis of RA Introductions (see Chapter 4, section 4.1.1.). The Methods section revealed a low level of rhetorical complexity, therefore it was not possible to carry out a further analysis of this unit in terms of moves. For the analysis of the communicative categories of the Results unit, I applied Brett's (1994: 52) taxonomy of categories proposed for the analysis of the Results section of Sociology research articles. Finally, the move analysis of the Conclusion/Discussion section was primarily based on the model proposed by Hopkins and Dudley-Evans (1988: 118) for the analysis of RA Discussion sections.

As described for the previous stage, in order to validate the findings, my results were then compared with the analyses of a representative sample of the texts carried out by my co-analysts. A high level of inter-analyst agreement on move structure was initially achieved and, as in the previous analysis, complete agreement was reached after discussion.

In the present study, since rhetorical moves are considered as functional units, the identification of move boundaries was primarily based on function rather than form criteria. However, it must be noted that, on those occasions in which there was ambiguity, especially in the case of non-prototypical texts, the lexico-grammatical elements were particularly useful as a means of confirming the analysis.

#### **5. 4. 2. Analysis of hedging devices**

I also carried out a preliminary analysis to identify the possible linguistic devices that writers in both languages used at a lexico-grammatical and syntactic level for the function of hedging. For the purposes of the analysis, I chose to divide hedges into four separate categories depending on the function that they realised in the texts (see Chapter 4, section 4.2.6.). In a cross-linguistic analysis, as the one described here, it is of particular importance to present clear equivalences of the realization of hedges in both languages. Thus, for example, the conditional mood in Spanish was considered a realization of a hedge equivalent to the form *would* in English.

Once the taxonomy was established, I proceeded to carry out a comparative quantitative analysis in terms of the frequency of occurrence and distribution of hedges in each of the structural units of the abstracts. The

instances of hedges were examined in context to ensure that they expressed a hedging function. In order to validate my analysis, a representative number of the sample was analysed by one of my co-analysts and then contrasted with my own analyses. A high level of agreement was reached after discussion. The few cases of disagreement were related to the perception of some approximators (e.g. *many*, *largely*, *generally*, etc.) as performing a hedging function, mainly one indicating vagueness.

The most complicated methodological problem related to the analysis was in deciding on how to present the frequencies of the use of hedges, since in hedging not only single words are used, but also combinations of two, three or more words, as well as various grammatical devices. I finally calculated each instance as a separate example of a hedge, although recognising the existence of strings of hedges which reinforce the strength of hedging and therefore provide more protection to the author's face, as in the following examples: "*It is suggested that...*" In this instance the author combines two different hedging strategies, i.e. an impersonal passive construction (strategy of depersonalisation) and an epistemic verb (strategy of indetermination), which for the purpose of the quantitative analysis have been treated as two separate instances of hedges. Similarly, in "*Los resultados sugirieron que...*", the author uses an impersonal active construction in which the personal subject is replaced by a non-human entity (strategy of depersonalization), and this is combined with the epistemic verb to reinforce the hedging function. This is another example which I have recorded as two separate instances of

hedges. As in the examples given above, in the Appendix section, the instances of hedges are italicised.

Finally, the percentage of hedges with respect to the total number of occurrences in each category was also recorded, in order to appreciate more clearly the distributional variability per structural unit in both groups of abstracts.

#### **5. 4. 3. Analysis of first person pronouns**

In addition, I carried out a comparative quantitative analysis of the frequency of occurrence and forms of first person pronouns across the two groups of abstracts. The instances of first person pronouns are underlined in the Appendix section.

A further analysis of the cases of first person plural pronouns revealed that they had a number of semantic references and performed multiple socio-pragmatic functions in the various rhetorical units of the abstracts. Therefore, in the second phase of this study, I applied a classification of these items according to semantic functions and roles in relation to their degree of authorial presence in the texts (see Chapter 6, section 6.6.1.) Once again the analysis was validated by a second researcher.

#### 5. 4. 4. Analysis of academic conflict

A preliminary analysis of the corpus revealed that the writers in both languages used, with a relatively high frequency of occurrence, a number of rhetorical strategies to criticise specific members of their discourse community or the scientific community in general. Therefore, I proceeded to analyse in detail the cases of academic conflict (AC) in the texts.

As regards the qualitative equivalence of the elements under study, I have considered as instances of academic criticism those critical speech acts that refer to previous published research, that is, mainly with the aim of justifying publication, writers in both languages may use a number of rhetorical strategies which involve the criticism of members of their own academic community. The strategies which are considered in this study broadly imply, on the one hand, the criticism of any weak point (a misconception or inadequacy) or disagreement with results or hypotheses in reference to previous work, as in the following examples taken from the corpus analysed:

The conclusion drawn is that investigations of segmental phonetics can give rise to **misleading results** unless the accompanying prosodic structure is also taken into account. (Eng. Phon. 3)



Los efectos del contexto ambiental en la memoria **han resultado ser poco fiables en un buen número de estudios previos.** (Sp. Psych. 17)

A criticism is also implied, on the other hand, in those cases in which the author mentions the existing gaps in relation to previous research:

Nevertheless, **we do not have an adequate understanding** of how this sound change takes place. (Eng. Phon. 17)

A pesar de la importancia que estas variables tienen para obtener efectos de facilitación o interferencia bajo el paradigma de facilitación semántica, **no existe actualmente** un listado de estímulos con esta información. (Sp.Psych. 19)

Although it can be argued that in the latter cases the rhetorical moves which represent a knowledge gap are used to create a conceptual ‘niche’ (cf. Swales, 1990) rather than a critical comment on previously published work, it is my position that, by opening and filling a gap, writers are making an implicit criticism of the research community as a whole, as its members have failed to provide full insight on a specific issue. Notwithstanding, in future studies, these two types of criticism might well be differentiated.

For the quantitative analysis of the frequency and type of rhetorical strategies the writers in both languages use to convey academic conflict in the abstracts, I used the taxonomy of rhetorical options as described in Chapter 4, section 4.4.1.

## Chapter 6

---

### Results

#### 6. 0. Introduction

In the first section of this chapter, I start by reporting on the results obtained from the preliminary quantitative analysis of the abstracts in terms of the average number of words, sentences and paragraphs.

In the following two sections, I present the results of the analysis of the structural units that constitute the macro-structure of the abstracts and report on the results obtained from the analyses of the texts in terms of the

moves available to writers to convey a communicative intention in each of the macrostructural units.

In section four, I attempt to identify the major lexico-grammatical forms and strategies used to hedge in the corpus, to explore their pragmatic functions, and to determine the distribution of hedging devices across the different structural units of the abstracts. In the next section, I suggest a ranking of hedging strategies depending on the degree to which the minimalization of Face Threatening Acts is achieved.

In section six, I analyse the distribution and frequency of occurrence of first person pronouns in the English and Spanish abstracts. I have also examined the possible semantic reference and the different socio-pragmatic functions that these pronouns may perform and have presented a scheme showing the various degrees of authorial presence linked to the discourse functions.

The final section focuses on the analysis of the ways the writers of abstracts manage interpersonal relationships through the expression of criticism.

## 6. 1. Quantitative analysis of length and sentence count

Considering that abstracts are relatively short texts, a variation in length and number of sentences across languages might be related to the number of macro-structural units and moves found in the texts. That is the main reason why I carried out a preliminary quantitative analysis of the abstracts in terms of word and sentence count.

The results of this analysis revealed that, as regards the length and number of sentences in the abstracts, both groups of texts present a great deal of variability. Overall, as seen in Table 1, the 80 abstracts in English averaged 158.9 words in length and 6.4 sentences per text. The 80 abstracts in Spanish had an average number of 147.7 words and 5.3 sentences per text.

Table 1. Number of words and sentences in the abstracts

	ENGLISH TEXTS	SPANISH TEXTS
Total No. of words	12,715	11,822
Average No. of words	158.9	147.7
Total No. of sentences	519	431
Average No. of sentences	6.4	5.3

Table 1 shows that, overall, the average length and mean number of sentences are slightly higher in English, although this difference is not of sufficient importance across the two groups to consider it a relevant factor in this study.

## **6. 2. Analysis of the macro-structure of the abstracts**

In general terms, it was found that the four basic macro-structural components that typically constitute a research article (I-M-R-C/D) were all present, to some degree, in both the English and Spanish abstracts, and although some similarities in the frequency of occurrence and distribution of these units in both groups of abstracts were revealed, there were also statistically significant differences.

The results in Table 2 below show that the Introduction unit is the most frequent and is an obligatory element in both groups of abstracts. Frequency of occurrence of the Methods unit is quite similar in the two groups of abstracts analysed. Frequency of occurrence of the Conclusion/Discussion unit tends to be higher in the English abstracts, although the difference is not significant. The analysis also revealed a strong tendency to omit the Results unit in the Spanish abstracts. This unit was present in only 41.25% of the Spanish abstracts in contrast to 86.25% in the abstracts written in English, a finding that represents a highly significant difference of  $p \leq 0.001$ .

Table 2. Frequency of occurrence and distribution of macro-structural units in the abstracts

	ENGLISH	SPANISH
<b>Introduction</b>	79 (98.75%)	80 (100%)
<b>Methods</b>	66 (82.5%)	65 (81.25%)
<b>Results</b>	69 (86.25%)	33 (41.25%)
<b>Conclusion/Discuss.</b>	71 (88.75%)	58 (72.5%)

Table 3. Total number of structural units in the abstracts

	ENGLISH	SPANISH
4 units	54 (67.5%)	20 (25%)
3 units	21 (26.25%)	41 (51.25%)
2 units	3 (3.75%)	13 (16.25%)
1 unit	2 (2.5%)	6 (12.5%)

The results in Table 3 show that most of the English abstracts present the four units used at the same time, in contrast to the Spanish abstracts which only present all the four units in 25% of the cases analysed, due mainly to the high incidence of omission of the Results unit. It was also observed that the linear sequence (Introduction + Methods + Results + Conclusion/

Discussion) predominated in both groups of abstracts. There were two exceptions in the English part of the corpus, one with the pattern I+M+C+R (No. 12, Phon.) and the other with M+I+R+C (No. 7, Psych.). The sequence varied from the typical pattern in another five of the Spanish texts: No. 20, Phon. (I+C+R), No. 22, Phon. (I+C+R+M), No. 25, Phon. (I+C+M+R); No. 28, Phon.(I+M+C+R) and No. 12, Psych. (I+M+C+R).

From Table 3 above it can be deduced that the abstracts which are considered to be more complete, in the sense that they contain the four basic structural units (cf. Salager-Meyer, 1990), are those written in English (67.5%), whereas only 25% of the abstracts written in Spanish had all four structural elements. Once again, this represents a highly significant difference of  $p < 0.0001$ .

In the study presented here, all the English abstracts analysed were constituted by one single paragraph, except on three occasions in which the abstracts were constituted by two paragraphs and on one occasion by three paragraphs. The Spanish tendency is similarly for the use of one paragraph for the abstract, although a few more examples of abstracts constituted by more than one paragraph were found: five cases of abstracts made up of two paragraphs and another five examples of abstracts made up of three paragraphs. However, in none of the examples analysed was conceptual overlap observed from one paragraph to the other.



### **6. 3. A move analysis of the structural units of the abstracts**

The results obtained from a further detailed analysis of the four basic macro-structural units that constitute the abstracts in terms of *moves* and *steps* are described in the following subsections:

#### **6. 3. 1. Description of the Introduction unit**

In the sample of 160 abstracts it was found that the Introduction section is the longest and most frequent rhetorical unit in both groups of abstracts. It occurs in all the abstracts analysed, except on one occasion in the English abstracts (No. 15, Psych.), which opens with an explicit account of the methods employed in the experiment and continues with the reporting of the results and conclusions.

A detailed examination of the Introduction unit of the abstracts revealed that this section was the most complex unit in terms of rhetorical options. Swales himself draws our attention to the complexity of research article introductions when he states that:

Introductions are known to be troublesome [...]. The opening paragraphs somehow present the writer with an unnerving wealth of options: decisions have to be made about the amount

and type of background knowledge to be included; about an authoritative versus a sincere stance. (Swales, 1990:138)

In order to establish the frequency and distribution of rhetorical options employed by the English and Spanish writers in both groups of abstracts, I applied Swales's (1990:141) three-move model for the RA introduction (see Chapter 4, section 4.1.1.). The findings obtained in this analysis, as seen in Table 4, revealed that the Introduction unit of the abstracts in English is more complex in terms of the number of rhetorical options: 30.3% of the abstract introductions in international journals contain the three moves as described by Swales (1990) for the introductions of research articles. In contrast, only 12.5 % of the Spanish authors opted for using all three moves in the introduction of their abstracts, exhibiting a clear preference for a unit made up of a single move: More than half of the Spanish abstract introductions (61.25%) are constituted by a single move, mainly Move 3.

Table 4. Number of moves in the Introduction unit of the abstracts

	ENGLISH	SPANISH
3 moves	24 (30.3%)	10 (12.5%)
2 moves	26 (32.9%)	21 (26.25%)
1 move	29 (36.7%)	49 (61.25%)

Table 5. Frequency and distribution of moves in the Introduction section of the abstracts

	ENGLISH	SPANISH
<b>Move 1 - Establishing a territory</b>	42 (53.16%)	30 (37.5%)
<b>Step 1 - Claiming centrality</b>	3	13
<b>Step 2 - Making topic generalizations</b>	32	17
<b>Step 3 - Reviewing items of previous research</b>	8	8
<b>Move 2 - Establishing a niche</b>	33 (41.77%)	12 (15%)
<b>Step 1A - Counter-claiming</b>	7	1
<b>Step 1B - Indicating a gap</b>	17	9
<b>Step 1C - Question-raising</b>	9	2
<b>Step 1D - Continuing a tradition</b>	-	1
<b>Move 3 - Occupying the niche</b>	79 (100%)	78 (97.5%)
<b>Step 1A - Outlining purposes</b>	13	33
<b>Step 1B - Announcing present research</b>	76	53
<b>Step 2 - Announcing principal findings</b>	-	1
<b>Step 3 - Indicating RA structure</b>	1	2

Table 5 above shows that, overall, the writers of the Spanish and English abstracts used most of the three moves and the different rhetorical strategies or *steps* connected to each move, as described by Swales (1990) for the RA introductions. No instances of moves outside the parameters of this model were found in the sample analysed.

From Table 5 it can be inferred that the fundamental and obligatory communicative category in the Introduction unit of the abstracts is Move 3 where the writers introduce their current research. This move is present in all but two of the abstracts. The exceptions are the Spanish abstracts Phon. No. 22 (Move 1) and Phon. No. 25 (Move 1+Move 2) in which the Introduction unit is made up of other moves.

Move 3 is realised in both languages predominantly through two steps: Step 1A, by means of which the author indicates the main purpose of his/her study, or step 1B, in which the author describes the main features of his/her research. This second option is the most favoured in both the English and Spanish abstracts. For the realization of step 1A, the writers on most occasions used a noun to indicate the purpose of their studies:

An attempt was made to see... (Eng. Phon. No. 4)

The purpose of the investigations was... (Eng. Psych. No.7)

El objetivo de este artículo es... (Spa. Phon. No. 1)

La finalidad más importante de la presente investigación es... (Spa. Psych. No. 4)

In the realization of step 1B, the authors showed a preference for using deictics (*the, this*) to refer to the present text (*paper, study, experiment*) followed by a verb predominantly in present tense, although instances of past tense were also found in both groups of abstracts. Typical linguistic exponents of this step are:

The paper deals with... (Eng. Phon. No. 1)

These experiments deal with... (Eng. Psych. No. 3)

En este artículo se señalan... (Spa. Phon. No. 2)

Este trabajo analizó... (Spa. Psych. No. 5)

With regard to this Move 3, a number of features are noteworthy: A common practice in both languages is that the authors use M3:S1A or, more frequently, M3:S1B to describe the general purpose or to outline their research and, immediately after this rhetorical strategy or further on in the text, the authors indicate a more specific objective of their study by means again of M3:S1A or M3: S1B, although in Swales' (1990) model these two rhetorical options are apparently to be regarded as mutually exclusive.

Another generalised tendency in both languages is to coalesce the Introduction unit ( M3:S1A or M3:S1B) with the Methods unit. In 31.6% of the abstracts in English and 29.9% of the Spanish abstracts, the authors opted for realising these two units in the same sentence. This is arguably the result of space constraints:

In three perceptual experiments utilising computer-synthesised intervocalic bilabial stops, opposing predictions of the two model are tested by embedding falling, level, and rising perturbations in different intonational environments. (Eng. Phon. No. 2)

Se ha procedido a contrastar las frecuencias de aparición de los fonemas vocálicos tal como se encuentran en diversos fragmentos escogidos al azar de textos escritos correspondientes a novelas y teatro en lengua española, con la frecuencia de los mismos fonemas presentes en palabras inventadas por una serie de sujetos castellano-parlantes. (Sp. Phon. No. 17)

It should also be noted that there were two instances in the Spanish texts in which an implicit communicative category, indicating purpose or describing the main features of the research, coalesced with a descriptive element of the methods or procedures in an initial move. In these cases, there were no explicit linguistic discourse markers that offered clear evidence of

either Step 1B or Step 1A, as in the following example:

En tres experimentos de aprendizaje perceptivo se utilizó el condicionamiento de aversión al sabor para examinar el efecto de variar el tamaño de la preexposición. (Sp. Psych. No. 18)

For the other two steps related to Move 3, in the sample analysed there was only one instance of step 2 (*Announcing principal findings*) which was found in a Spanish abstract:

Se realizaron análisis de fiabilidad y homogeneidad de los ítems con resultados satisfactorios. (Sp. Psych. No. 8)

This communicative category seems to be dispreferred in the abstracts in both languages as the function of reporting the main findings is achieved in the Results unit.

As for the remaining step within Move 3, there were only two examples in Spanish and one in English in which the writers, immediately after presenting the key features of their study, opted for step 3 to indicate the structure or content of the article itself:

The literature relevant to this issue is reviewed, and the results of a supplementary experiment on F0 as a cue to vowel identity are reported. (Eng. Phon. No. 1)

Presentamos una descripción del programa que incluye los componentes del programa, el diseño, resultados y conclusiones. (Sp. Psych. No. 37)

Another communicative category that occurs in more than half of the Introduction sections in the English abstracts (53.16%) and in 37.5% of the Spanish abstracts is initial Move 1, in which the author establishes the relevance of her/his work for the scientific community. In the Introduction unit of the abstracts drawn from the international journals, on most occasions the writers used step 2 (*Making topic generalizations*) as a means of presenting their research topic. This rhetorical strategy is also favoured by the Spanish writers as a means of realising Move 1, although the incidence of occurrence is higher in the English abstracts (32 instances reported in English as opposed to 17 in Spanish):

The role of mental imagery in human cognition and memory has been studied by means of a variety of experimental procedures. (Eng. Psych. No. 2)

En lengua coreana existe una oposición fonológica entre tres tipos de oclusivas. (Sp. Phon. No. 15)

The Spanish authors show a greater tendency to achieve this communicative intention (Move 1) through step 1 (*Claiming centrality*), by means of which



the writer highlights the importance and interest that his/her work has. In the Spanish texts, 13 instances of this step were found, as opposed to three cases in English:

(...) tema que durante muchos años ha despertado interés entre los lingüistas. (Spa. Phon. No. 11)

Still, the pharynx is an important part of the vocal tract. (Eng. Phon. No. 31)

Swales (1990) also considers in his model a step 3 within Move 1, where writers make reference to previous research by citing other authors. In the sample analysed it was observed that this option was not very popular in either of the languages, and it has an identical frequency of use in both groups of abstracts (eight instances were found both in English and Spanish). This rhetorical strategy is used, generally, to reinforce the importance of the study and to give support to the arguments put forward by the authors:

Recent literature has demonstrated such an effect of categorization on perception in what has come to be known as categorical perception (Harnad, 1987). Evidence is available for the categorical perception of stimuli belonging to categories of which we are innately aware (see Etcoff & Magee, 1992). (Eng. Psych. No. 20)

Los competidores semánticos se han definido como los elementos de una categoría que tienen un alto grado de similitud visual y/o funcional (Wheeldon y Monsell, 1994). Trabajos recientes (Alario, Segui y Ferrand, en revisión; Wheeldon y Monsell, 1994), han encontrado efectos de interferencias en ... (Sp. Psych. 19)

Although there were some occasions on which citing other authors in the introductory move of the abstracts was a rhetorical device that had a different function, mainly to show disagreement in a subsequent move with the ideas sustained by the cited authors:

An earlier experiment by Byrne (1981) found that young, poor readers tend to act out sentences containing adjectives with object control (...).

[Contrary to Byrne's (1981) results, we did not find significant group differences in interpreting object-control adjectives with either task.] (Eng. Psych. No. 33)

Existen argumentos encontrados entre algunas posiciones articulatorias contra la idea de ese alto parentesco fonético entre ellos Catford (1977) y posiciones acústicas que defienden lo contrario (Lindau, 1985).

[En nuestro estudio, hemos encontrado evidencias a favor de la posición acústica...] (Sp. Phon. No. 25)

The most interesting and highly significant difference ( $p=0.0001$ ) between the English and Spanish abstracts is related to the frequency of occurrence of Move 2, in which writers justify their work in their research field. Whereas in the introduction of the abstracts for international publication the researchers use this communicative category in 41.77% of the cases analysed, this move was only present in 15% of the Spanish abstracts. For both groups of writers, the rhetorical strategy which most commonly realised Move 2 was step 1B (*Indicating a gap*) to point out the possible topics or areas that still need research in relation to previous work. The majority of the examples of this step were initiated with an adversative sentence:

However, less is known about articulatory characteristics of such productions, particularly in the case of children. (Eng. Phon. No. 5)

A pesar de la importancia que estas variables parecen tener para (...), no existe actualmente un listado de estímulos con esta información. (Sp. Psych. No. 19)

The second most popular option in both languages for achieving the communicative intention of Move 2 was step 1C (*Question-raising*). Nine instances of this step were reported in the English abstracts and two instances in the Spanish texts:

Is there a common basis for the ethnic and sex differences that are characteristically obtained on psychometric tests of spatial ability? (Eng. Psych. No. 8)

El primer experimento sometió a comprobación la hipótesis de que el efecto del contexto dependía del grado en que se procesaba el entorno... (Sp. Psych. No.17)

There were also seven instances in English and one in Spanish of the use of step 1A (*Counter-claiming*), where the author criticises the weak points of previous work:

Other studies, however, have suggested that infants may not always be so perceptually capable. (Eng. Phon. No. 33)

La presentación en el IPA de los sonidos [ɹ] y [r] en dos modos de articulación diferentes (...) contrasta con el hecho evidente de un comportamiento homogéneo desde un punto de vista fonológico, que lleva a creer en un parentesco fonético; es decir, creemos que no poseen dos modos diferenciados y que constituyen un sola clase. (Sp. Phon. No. 25)

As regards the use of step 1D (*Continuing a tradition*), by means of which the writer presents his/her work as a continuation of a previous research topic, among the English writers, there were no uses of this option. The only example of this step was found in a Spanish abstract:

(...) como ya señalaban desde hace más de un siglo algunos tratados de métrica. (Spa. Phon. No. 13)

Apart from the common practice of stating the general purpose of the study and then describing the more specific features of the research by means of Move 3:Step 1A/1B, the abstracts analysed in both languages were characterised by the absence of move recycling, although the incidence of repetition of moves, and especially Move 1 and Move 2, through different steps tends to be higher in the Spanish abstract introductions. For example, Spa. Psych. No.14 has the pattern Move 1:Step 1+M1:S3+M3:S1B.

Finally, in relation to the sequential order in which the communicative categories occurred in the introductions of the abstract analysed, it was observed that most of the texts in both languages presented a clear linear structure of Move 1+2+3. Among the 50 abstract introductions in English which were constituted by more than one move, only 20% presented sequence variation. In Spanish, the sequence variation tends to be higher: among the 31 abstract introductions constituted by more than one move, 41.9% showed alteration of the sequential order as identified by Swales (1990).

### **6. 3. 2. Description of the Methods unit**

The frequency of occurrence of this unit was found to be similar in both languages. It occurs in 82.5% of the English abstracts and in 81.25% of the Spanish abstracts. The purpose of this element in RAs is often believed to be the straightforward report of the procedures and material employed in the research in order to facilitate replication. Nevertheless, Swales (1990) has argued that the possibility of replication, especially in the experimental sciences, is, on many occasions, remote:

Methods sections (...) are enigmatic, swift, presumptive of background knowledge, not designed for easy replication, and with little statement of rationale or discussion of the choices made (Swales, 1990: 170).

This possibility of repeating an experiment is still more remote if abstracts alone are used as a source since, due to constraints of space, they are generally very brief. In this sample of 160 abstracts it was found that, in both groups, the majority of Methods elements were very short, sometimes constituted by only one simple sentence where the author describes very briefly the most relevant details of materials, subjects, data sources, procedures or the methodology used in the study, as in the following examples:

In the first experiment, two samples of 40 students, balanced for sex, from Zimbabwe and Scotland respectively, attempted a forced-choice recognition task for meaningful scenes. (Eng. Psych. No. 8)

Para ello se ha efectuado el análisis espectrográfico de un corpus de sílabas aisladas realizadas por dos informantes masculinos. (Sp. Phon. No. 1)

As Bazerman (1988) has argued, the rhetorical function of the Methods section “is not to present news or innovations, but rather to protect the researcher’s results by showing that the experiment was done cleanly and correctly” (p. 272). The main function of this unit, as Hyland (1998) has also suggested, thus seems to be to provide rhetorical support for the claims made by demonstrating that writers used appropriate procedures.

An interesting point to note is that in some cases the Methods unit occurs as a completely independent unit: in 48.4% of the sample analysed in English and in 50.7% in Spanish. However, on other occasions, and as reported by other authors such as Santos (1996) or Anderson and Maclean (1997), this element is embedded in the Introduction unit, coalescing with a move in which the purpose or the main features of the study are indicated, mainly M3:S1A or S1B:

The stop closure durations and voice onset time geminate and single voiceless stops in Japanese were examined with two groups of subjects: native Japanese and fluent Americans. (Eng. Phon. No. 8)

El fin de esta investigación fue el análisis de la colisión acentual por medio del estudio acústico de las emisiones de un informante de español, perteneciente a un dialecto hispanoamericano. Las mediciones de F0 y de la duración se realizaron en los contornos de entonación en las trazas oscilográficas. (Sp. Phon. No. 35)

This strategy of merging the Methods unit with a move indicating purpose or describing the main features of the experiment was found in 46.9% of the English abstracts and in 43% of the Spanish abstracts, suggesting that this strategy is favoured by the authors of both languages due, arguably once again, to constraints of space.

It was also found that in three instances in English (4.5%) and four in Spanish (6.1%) the Methods unit coalesced with the Results unit in the same sentence:

In a longitudinal database, repetition accuracy in 4-, 5-, and 6-year-olds was found to be sensitive to two independent factors: a phonological memory factor, nonword length, and a linguistic factor, wordlikeness. (Eng. Psych. No. 30)



Los resultados de un experimento con diez informantes (cinco hombres y cinco mujeres), que produjeron una serie de estímulos con [p-b], [t-d], [k-g] para cada una de las cinco vocales del español, mostraron que... (Sp. Phon. No. 21)

The fact that the Methods unit frequently coalesces with another structural unit in the abstracts (especially with the Introduction unit) in both languages, may indicate that this section does not normally have a prominent position in the texts, and that the interest that readers show in the experimental methods is less than for the other units. This argument is supported by Berkenkotter and Huckin (1995) who note, in relation to the Methods section of RAs, that readers rely on the editors and reviewers to carefully validate the methodological details of a study, so that they can concentrate on the actual findings. As regards the scarce attention that researchers pay to the writing of this section in RAs, they remark:

In major research laboratories, where articles are usually written as a team effort with various apprentices involved (...) the more routine parts of the article - the methods section and the presentation of raw results - are typically written by junior scientists or graduate students. In other words, it is only those elements of the article that promote news value that the laboratory head feels deserve his/her attention (Berkenkotter & Huckin, 1995: 42).

Nevertheless, these authors emphasise the importance of the Methods section to editors and reviewers on the basis of studies which have been carried out on the manuscript review process, and which have shown that methodology is a major factor in manuscript evaluation, with editors and reviewers insisting on a full methodological description.

Just as in similar corpora described by other authors such as Weissberg and Buker (1990), linguistic features that typically characterise the Methods unit of international abstracts are the use of the past tense and passive voice, indicating a preference for an impersonal style by the writers in English. Similarly, Spanish writers used the past tense and passive constructions to report the methodology of their studies on most occasions, although some instances in which the writers opted for the use of the present tense or the active voice were also found:

He realizado un estudio con ciento veinte escolares de edades comprendidas entre los seis y los catorce años. (Sp. Phon. No. 5)

A high level of similarity can, therefore, be observed between the Methods unit in the international abstracts and the Spanish abstracts analysed. The only distinctive feature that is worth noting is that the Spanish authors present a greater tendency to write longer Methods sections. This can be clearly observed in eight of the Spanish abstracts (Phon. No. 3, 11, 12, 16, 32

and Psych. No. 8, 21, 40 ) where this unit occupies considerable textual space in comparison with the abstracts in English.

### **6. 3. 3. Description of the Results unit**

It is in the Results unit that the authors make new knowledge claims by reporting on the main results obtained in the experiment or the effects observed. It thus represents a carefully constructed discourse strategy to persuade readers of the validity of the main scientific findings. These are stated most frequently in the English abstracts by means of a sentence initiated with an inanimate noun (e.g. *the findings, the analyses, the results*) in subject position and followed by such verbs as *show, reveal, indicate*, in the past tense. On other occasions, the main findings are directly reported with no lexical signals:

Performance in the inverted condition was significantly poorer for all age groups. (Eng. Psych. No. 1)

The passive voice and impersonal constructions were also commonly used by the writers of international abstracts (e.g. *It was observed that..., Several instances were found of...*).

As has been mentioned earlier, a highly significant difference exists in the frequency of occurrence of this unit in the Spanish and English abstracts, being present in only 41.25% of the Spanish texts analysed in comparison to 86.25% in the abstracts in English. Moreover, the prevalent practice of using verbs in the past / passive voice (*showed / was found, was observed*) among the members of the international scientific community was not so clearly favoured by the Spanish writers. These showed a higher incidence in the use of the present tense and a very clear preference for the use of the active voice:

El primer y segundo formante muestran relaciones (...).  
El primer formante predice... (Sp. Phon. No. 14)

The analysis of this unit also revealed that many of the communicative categories proposed by Brett (1994) for the Results section of sociology articles were present in the sample analysed. Brett divides the 16 rhetorical categories into three main types, mainly metatextual categories (with the function of indicating to the reader which data in figures and tables are to be discussed or describing the content and order of the text that follows), presentation categories (which objectively report the results or the way in which they were obtained), and comment categories (in which authors give their subjective opinion about the results already presented). The obligatory rhetorical element which is always present in the Results unit of the abstracts in both languages is a *Statement of Findings*, within the presentation

categories, through which the author reports objectively the results obtained. A way of realising this category, as established by Brett (1994), is by means of comparison. Half of the writers in English (50.7%) and 27.2% of the writers in Spanish described the results obtained from their studies by comparing the subjects or elements involved in the experiment, as in the following examples:

The older children made significantly smaller errors than the younger ones, but on the whole both age groups made accurate extrapolations in all three types of problem. (Eng. Psych. No. 4)

Los resultados no indicaron diferencias significativas en los items focalizados comparados con los no focalizados. Tampoco hubo diferencias entre el foco neutro, el foco ancho y el foco estrecho. (Sp. Phon. No. 16)

It was also found that after the statement of findings in two instances in Spanish and one in English the authors used another rhetorical strategy, *Substantiation of Finding*, as described in Brett's model, with the function of supporting the major finding which had previously been presented:

A second experiment with shorter lists and more children supported the latter finding. (Eng. Psych. No. 40)

Un análisis discriminativo posterior confirmó este hecho.  
(Spa. Phon. No 21)

In the sample analysed there were no instances of metatextual categories, as described by Brett, however, in both languages there were a few cases in which comment categories occurred, after the reporting of the main results, by means of a rhetorical option (*Explanation of Finding*):

Most of the misassignments were due to wrong imitations. (Eng. Phon. No. 4)

(...) Es evidente que esta diferencia se puede reducir al aumentar la exposición a los estímulos discriminativos. (Sp. Psych. 18)

Another type of Comment category (*Comparison of Finding with Literature*) may be used by the authors as a way of re-establishing knowledge claims, either a) by mentioning other findings which concur, or b) by indicating that the present findings diverge from the results of previous research:

a) Consistent with studies of lip and jaw kinematics,...  
(Eng. Phon. No. 35)

b) Contrary to Byrne's (1981) results, we did not find...  
(Eng. Psych. No. 33)

a) (...) Tanto la composición factorial de la escala como los estadísticos univariados dan resultados similares a los obtenidos en otras culturas por otros investigadores. (Sp. Psych. No. 22)

b) En este trabajo se han realizado de una forma sistemática los mismos experimentos llevados a cabo por S. E. Blumstein y K. N. Stevens y se ha comprobado que los resultados que éstos obtuvieron para la lengua inglesa no se cumplen en la lengua castellana. (Sp. Phon. No. 18)

Finally, there is also another communicative category (*Evaluation of Findings*), less frequently used in both languages, by means of which the main findings are evaluated with regard to the hypothesis previously stated in the introduction of the abstract. According to Brett, this can be realised by a statement that a) confirms that the findings match the original hypothesis, or b) indicates that findings are not in line with the original hypothesis:

a) El experimento 2 confirmó que la preexposición a...  
(Spa. Phon. No. 18)

b) Contrary to the hypothesis that identification training promotes... (Eng. Psych. No. 37)

In sum, in the Results unit, the writers in both languages make frequent use of many of the rhetorical strategies described by Brett (1994), all of which reflect the writers's need to persuade the reader of the validity of their new knowledge claims.

#### **6. 3. 4. Description of the Conclusion/Discussion unit**

In the Conclusion/Discussion unit of the sample analysed, the writers make their final claims about the importance of their research by summarising the main implications drawn from the results obtained. This unit thus represents the most persuasive part of the abstract. The frequency of occurrence of this unit does not emerge as being significantly different, although there is a slightly greater frequency in the English abstracts (88.75% as opposed to 72.5% in Spanish).

The verb tense which predominates in this unit is the present. the vast majority of the writers in English chose the present tense to draw their conclusions. The exceptions were texts Phon. No. 12 , Psych. No. 1 and No. 23 in which the past tense was used. Similarly, the Spanish authors showed a slightly less-marked preference for the present tense, with only 10 instances of past tense use.

One linguistic strategy used by the authors in both languages to signal the initiation of the Conclusion unit consists in explicitly using a noun which



makes reference to the function of this unit, e.g. *These findings suggest..., the main conclusions are..., the conclusion drawn is that...* Typical verbs in this unit are *suggest, indicate, imply, reveal* or *conclude* in the passive voice, as in *it is concluded that...* On other occasions in which there were no linguistic signals, differentiating between the Results and Conclusion units presented some difficulties. In fact, previous studies of the Results and Discussion sections of research articles have reported a considerable degree of move overlap in these two units. Hopkins and Dudley-Evans (1988: 118) identified 11 moves for the description of the Discussion section of natural science articles: 1) *Background Information* 2) *Statement of Result*, 3) *(Un)expected Outcome* 4) *Reference to Previous Research (Comparison)*, 5) *Explanation of Unsatisfactory Results*, 6) *Exemplification*, 7) *Deduction*, 8) *Hypothesis*, 9) *Reference to Previous Research (Support)*, 10) *Recommendation*, and 11) *Justification*<sup>1</sup>. Out of these moves, Brett (1994) found five equivalent communicative categories in his model of the communicative options used in the Results section of sociology articles, i.e. *Statement of Finding*, *Explanation of Finding*, *Comparison of Finding with the Literature*, *Evaluation of Finding*, and *Implications of Findings*. This indicates that the division between the Results and Conclusion units is not always very clear, and this is especially so in the case of abstracts which have no headings that

---

<sup>1</sup> Holmes (1997) found that most of these moves were present in the Discussion section of social science RAs, specifically in the disciplines of history, political science and sociology.

serve as clues to the identity of the different units.

Most of the Conclusion units in the abstracts analysed in both languages begin with a statement about the significance of the principal findings or with a move in which the main conclusions or implications of the research are interpreted on the basis of the results obtained. This typically represents the strongest claim in the abstracts:

This implies that all the variables examined affect processes specific to one or other measures, rather than changing a common database. (Eng. Psych. No. 3)

Del análisis se deducen conclusiones interesantes, tales como la complejidad del atributo que se pretende medir... (Sp. Psych. No. 12)

Other moves described in previous studies of the Results and Discussion sections of research articles, were also used by the writers of the abstracts both in English and Spanish although less frequently: eight instances in English and four in Spanish were found of the *Evaluation of Results* move:

Taken together, the results obtained here challenge the view that identification training is superior to same/different training as a means for training novel phonetic constrasts. (Eng. Psych. No. 37)

En lo que se refiere a la relación entre los dos tipos de memoria, los resultados obtenidos son de difícil interpretación al no conseguir que se produzca la buscada facilitación de las palabras test, con lo que no podemos sacar ninguna conclusión sobre la mencionada relación. (Sp. Psych. No. 4)

On five occasions in English and one in Spanish, the writers of the abstracts also used a move with the function of explaining the results obtained:

To explain these combined influences, it is suggested that... (Eng. Psych. No. 30)

Estos resultados se explican en base al mecanismo de ... (Sp. Psych. No. 11)

Another three instances in the Spanish abstracts were found in which the writers used a communicative category that has the function of comparing the results with the literature:

Los hallazgos coincidieron con los resultados experimentales obtenidos por medio de corpora emitidos por hablantes del español canario y por hablantes del español de Panamá. (Spa. Phon. No. 16)

There were also four cases both in English and Spanish of a move in which the writers give recommendations for future research, mainly by indicating that more studies are needed:

Further tests with extended stimulus sets are necessary to confirm this. (Eng. Phon. No. 23)

Sugerimos por tanto, que (...) en futuras investigaciones se delimite la relevancia del status del investigador y sus expectativas. (Sp. Psych. No.5)

A final move was found in the abstracts of both languages, in which the writers indicate to the reader that in the article there is a conclusion section where the implications of the results are discussed or suggestions for future research are given. It appears that the main function of this move is to draw the readers into the article rather than informing them about its actual content:

The relationship between jaw opening and hierarchical levels of prosodic structure is tentatively discussed. (Eng. Phon. No. 18)

Se discuten las implicaciones que pueden tener los datos en el campo de la educación y se plantean algunas cuestiones que deberían tenerse en cuenta en el futuro. (Spa. Psych. No. 10)

There were fifteen instances of this move in English and nine in Spanish. In seven cases in English this move occurred independently, and in eight cases it occurred immediately following or preceding another move with the function of interpreting the results obtained. However, in all nine cases in Spanish this move occurred independently.

Berkenkotter and Huckin (1995: 45) have suggested that the Discussion section of RAs typically contain the three moves proposed by Swales (1990) for the Introduction sections of RAs, but in reverse order:

Introduction	Discussion
1) <i>Establishing a territory</i>	1) <i>Occupying the niche</i>
2) <i>Establishing a niche</i>	2) <i>(Re)establishing the niche</i>
3) <i>Occupying the niche</i>	3) <i>Establishing additional territory</i>

These authors explain the relationship between the Discussion and the Introduction units in the following terms:

The three moves of the Introduction can be seen as working “from outside in”: first talking about the field as a whole, then progressively narrowing the scope so that only the current investigation is being addressed (...). Conversely, the three moves of the Discussion can be seen as working “from inside out”: The authors begin by referring only to the study at hand, but then progressively widen the scope to include related work by others (Berkenkotter & Huckin, 1995:419).

Following this argument, the moves found in the Conclusion/Discussion units of the abstracts may be seen as reversing the direction of the Introduction by moving from the study to the field as a whole. First, the writers emphasise what is new and interesting in a statement of principal findings. In Berkenkotter and Huckin’s terms, the writers reassert their claims to the “niche” created in the Introduction and occupied in the other rhetorical moves of the paper. Second, on many occasions, the writers establish a relationship between the results obtained in their study and the “niche” created in the Introduction by, for example, explaining the results obtained or comparing the findings with those obtained in previous research. Finally, in order to “establish additional territory”, the writers may opt for making a comment on the implications of the study or giving recommendations for future research. Notwithstanding, it should be noted that these moves were generally not present in the sample analysed, since the Discussion element in the abstracts is usually made up of a single sentence announcing principal findings.

## **6. 4. Analysis of hedges in the abstracts**

Following the the taxonomy of hedges proposed in Chapter 4, section 4.2.6., in this section, I report on the results obtained from the analyses of the various strategies and the linguistic devices associated to each strategy which perform a hedging function in the different structural units of the abstracts.

### **6. 4. 1. Analysis of epistemic modality**

In Table 1 below, the quantitative results of my analysis with respect to the frequency of occurrence and category distribution of modality expressions recorded in the different structural units of the English and Spanish abstracts are presented.

The results in Table 1 show that there is a highly significant difference ( $p \leq 0.0001$ ) in the frequency of use of epistemic modality between the abstracts written in English and Spanish. The total number of modal markers used in the English texts was 163 as opposed to the total number of 72 found in the Spanish abstracts. Whereas this rhetorical strategy was favoured by the majority of academics who wrote in English for international publications (there were examples of epistemic modality in 72 out of the 80 English abstracts that constitutes the sample), this practice of using modal devices was only found in 41 out of the 80 abstracts analysed in Spanish.

Table 1: Frequency of occurrence and distribution of modality devices in the structural units of the abstracts

<b>Structural unit</b>	<b>Category</b>	<b>English</b>	<b>Spanish</b>
INTRODUCTION	- Modal verbs	29 (51.7%)	15 (51.7%)
	- Semi-auxiliaries	3 (5.3%)	2 (6.8%)
	- Epistemic verbs	12 (21.4%)	5 (17.2%)
	- Verbs of cognition	-	1 (3.4%)
	- Modal adverbs	1 (1.7%)	1 (3.4%)
	- Modal nouns	7 (12.5%)	3 (10.3%)
	- Modal adjectives	4 (7.1%)	2 (6.8%)
	<b>Totals</b>	56 items	29 items
METHODS	-	-	-
RESULTS	- Modal verbs	5 (20.8%)	2 (16.6%)
	- Semi-auxiliaries	4 (16.6%)	2 (16.6%)
	- Epistemic verbs	10 (41.6%)	5 (41.6%)
	- Verbs of cognition	-	-
	- Modal adverbs	-	-
	- Modal nouns	4 (16.6%)	2 (16.6%)
	- Modal adjectives	1 (4.1%)	1 (8.3%)
	<b>Totals</b>	24 items	12 items
CONCL/DISCUS	- Modal verbs	32 (38.5%)	12 (38.7%)
	- Semi-auxiliaries	5 (6%)	4 (12.9%)
	- Epistemic verbs	39 (46.9%)	10 (32.2%)
	- Verbs of cognition	-	1 (3.2%)
	- Modal adverbs	4 (4.8%)	1 (3.2%)
	- Modal nouns	1 (1.2%)	1 (3.2%)
	- Modal adjectives	2 (2.4%)	2 (6.4%)
	<b>Totals</b>	83 items	31 items
	<b>Totals</b>	163 items	72 items



The results in Table 1 also show that in both languages the frequency of occurrence and distribution of modality devices varies similarly across the different structural units of the abstracts: the most heavily-hedged unit both in English and Spanish is the Conclusion unit. This is unsurprising in that it is in this final section that writers make the highest level of claim and tentatively explore implications not directly tied to their findings. The modal markers most frequently used in this unit in both languages are epistemic verbs (*to suggest, to indicate, to tend, to propose; sugerir, indicar, señalar*) and modal verbs (*may, can, might; poder*).

It is in the Conclusion unit, especially in the English abstracts, that most instances of groups of modality devices in the same sentence were found, reinforcing in this way their epistemic force:

It is *tentatively suggested* that the congenitally blind *may* show different learning strategies from the sighted as a result of allocating more attention to sensory information processing. (Engl. Psych. 9)

*Sugerimos* por tanto, que si bien los factores en solitario no *parecen* ejercer ningún efecto, en futuras investigaciones se delimite la relevancia del status del investigador. (Sp. Phon. 5)

The second most-heavily hedged unit again in both languages is the Introduction, where the level of claim is also fairly high. In this unit, the

modality devices most frequently used are modal verbs (*can, would, may, might; poder*) followed by epistemic verbs (*to suggest, to indicate, to tend; pretender, proponer*) and modal nouns (*assumption, possibility, indication; posibilidad*). As noted in section 6.3.1, typical of most of the English and Spanish abstract introductions is the presence of Move 3, in Swales' (1990) terms, where writers indicate the main purpose of their studies or describe the main features of their research. For the realisation of this move, the writers in both languages occasionally made use of modality expressions:

The present paper reports on an *attempt* to use computed tomography for investigating the pharynx. (Eng. Phon. 31)

This study explores the *possibility* that beginning writers do not revise because they do not read their own writing. (Eng. Psych. 21)

Este trabajo *pretende* estudiar los distintos parámetros acústicos que permiten la diferenciación de las tres series de oclusivas distintivas. (Sp. Phon. 15)

Para profundizar en este objeto de conocimiento, este trabajo se plantea la *posibilidad* de potenciar el efecto específico del tratamiento psicológico del dolor. (Sp. Psych. 38)

Another frequent subunit or move in the abstract introductions in both languages, also noted earlier, is Move 1, in which writers establish the

relevance of their work for the research community, mainly by showing their knowledge of their research topic or claiming centrality. For the realisation of this move, the writers on some occasions also used modality devices as a way of mitigating their claims:

Previous work *has indicated* that there *may* be a positive relationship between... (Engl. Phon. 16)

There is wide agreement that current psycholinguistic techniques *may* help us understand (...). This application *would seem* particularly worthwhile in the domain of schizophrenic speech. (Engl. Psych. 27)

Mediante el análisis acústico es *posible* constatar el tipo de trastorno y su evolución. (Sp. Phon. 34)

En términos generales, se *puede* decir que para algunas personas resulta fácil llevar a cabo una intención frente a otras fuerzas competidoras. (Sp. Psych. 28)

Move 2, as noted above, is less frequently found in the Spanish abstract Introductions than in the Introductions in English. It is in this move that writers try to justify their work in their research field by indicating a gap, that is, pointing out possible topics or areas that still need research, or by showing disagreement with the results of previous studies. In Move 2, epistemic modality constitutes an important rhetorical device, especially in the

international publications in English, diminishing as it does the degree of disagreement with the ideas sustained by other authors and thus protecting the author from criticism:

However, (...) the particular pattern of covariation *appears* to make more sense as a concerted effort to influence the perceived height of F1. (Eng. Phon. 7)

Morphological awareness (...) *may* offer a more comprehensive measure of linguistic.... (Eng. Psych. 32)

As a way of justifying their contribution to their research field, some writers in both languages use modality to question the validity of the results obtained by other researchers in earlier studies:

An earlier experiment by Byrne (1981) found that young, poor readers tend to act out sentences containing adjectives with object control (...). However, the *possibility* that a processing limitation *could* have contributed to the poor readers' difficulties with object-control adjectives has not been fully explored. (Engl. Psych. 33)

A pesar de la importancia que estas variables *parecen* tener para obtener efectos de facilitación bajo el paradigma de facilitación semántica, no existe actualmente un listado de estímulos con esta información. (Sp. Psych. 19)

In the Results unit, as shown in Table 1, the frequency of occurrence of epistemic modality is not as high as in the previous structural units. On the occasions that writers use modality to present the results obtained, the modality markers most frequently used are epistemic verbs, modal verbs and semi-auxiliaries. A relatively high percentage of modal nouns was also found in both languages:

There was a *tendency* for those subjects who had shown good correspondence between their ranks and their ratings to show a greater spread in their ratings. (Eng. Psych. 15)

Los resultados *indicaron* una *tendencia* a la compensación de los rasgos fonéticos. (Sp. Phon. 35)

Finally, with regard to the Methods unit of the English and Spanish abstracts, no examples of modality devices were found in any of the texts.

It is also worth pointing out that the only category in which no instances were provided in the English abstracts that constitute our sample was that of verbs of cognition, such as *believe*, *think*. This rhetorical strategy is not favoured by writers in abstracts for international publications. Although this tendency appears to be the same for the abstracts in Spanish, two instances of verbs of cognition were found in the Spanish texts:

(...) con lo cual *podemos pensar* que los índices invariantes hay que buscarlos en el seno de la sílaba. (Sp. Phon. 24)

(...) es decir, *creemos* que no poseen dos modos diferenciados y que constituyen una sola clase. (Sp. Phon. 25)

#### **6. 4. 2. Analysis of approximators**

The analysis of the corpus revealed that the writers in both languages make use of a fairly wide range of approximator devices such as *generally, often, much, virtually, frequently, relatively, most, some, approximately; muchos, varios, algunos, diversos, la mayor parte, prácticamente, recientemente*, etc., expressing various degrees of quantity, quality, frequency and time.

Table 2 shows the frequency of occurrence and distribution of these devices across the different structural units of the abstracts.

Table 2: Frequency of occurrence and distribution of approximators in the structural units of the abstracts

<b>Structural unit</b>	<b>English</b>	<b>Spanish</b>
INTRODUCTION	42 (51.8%)	14 (48.2%)
METHODS	2 (2.4%)	6 (20.6%)
RESULTS	21(25.9%)	5 (17.2%)
CONCL/DISCUSSION	16 (19.7%)	4 (13.7%)
<b>Totals</b>	81 items	29 items

The results in Table 2 also point to a highly significant difference in the overall frequency of use of approximators between the abstracts in English and Spanish. The total number of approximators in English was 81 as opposed to 29 in the Spanish texts.

As seen in Table 2, it is in the Introduction unit in both languages in which the greatest number of approximators is used (51.8% in English and 48.2% in Spanish). In most cases these devices are used in those sub-units of the Introduction in which the writers try to justify their work, i.e. Move 2, in Swales' (1990) terms, mainly by indicating the weak points of previous research or indicating a gap in the literature, as in the following examples:

However, attempts to link these covarying articulators to tongue movement physiologically have been *largely* unsuccessfully. (Eng. Phon. 7)

*Distintos* autores han criticado la utilización de este índice como media del ajuste apuntando *varios* inconvenientes. (Sp. Psych. 7)

There is also a relatively high number of instances of the use of approximators in the sub-units of the abstract Introductions corresponding to Move 1 in which the writers try to establish the relevance of their work mainly by showing their knowledge of their research topic:

*Much* of the published research in infant speech perception has emphasized (...). *Often* it has been suggested that (...). Indeed *some* studies have shown... (Eng. Phon. 33)

Psychologists have *generally* investigated remembering as an interpersonal phenomenon. (Eng. Psych. 11)

*Varios* investigadores han señalado que los sujetos controlan... (Sp. Psych. 21)

*Diferentes* trabajos han puesto de manifiesto (...). Si tenemos en cuenta, tal como se derivan de *un gran número de* investigaciones que ... (Sp. Psych. 33)



Not surprisingly, the writers in both languages also used approximators when presenting the results and conclusions of their research:

*Approximately* 80% of the time the statistical procedures assigned the individual tokens to the appropriate classes. *Most* of the misassignments were due to wrong imitations. (Eng. Phon. 3)

The latter results (...) suggest that discriminability is *largely* determined by language experience. (Eng. Phon. 21)

Los resultados son *moderadamente* concluyentes. (Sp. Psych. 24)

*Algunos* de los resultados muestran (...) que *prácticamente* la mitad de la población ha utilizado alguna vez material pornográfico (...). *En gran parte de* las variables aparecen diferencias... (Sp. Psych. 34)

This indicates that the choice of vague versus precise expressions of quantities is partly dictated by the general structure of the genre, particularly in the English abstracts. It is in those sections in which the level of generalization is higher (Introduction, Results and Conclusions), where the writers most frequently remain vague.

However, a significant difference ( $p \leq 0.010$ ) can be observed in Table 2 as regards the use of approximators in the Methods section. Whereas the

writers in English used approximators in the Methods unit very infrequently in comparison with their use in the other structural units (only 2.4% of the total number of occurrences), the writers in Spanish used approximators in the Methods unit more frequently than in the Results and Conclusion sections (20.6% of the total number of occurrences), as in the following examples:

*La mayor parte* de los ejemplos utilizados se presentan en pares mínimos... (Sp. Phon. 2)

Para ello hemos realizado *una serie de* entrevistas individuales, durante las que se han cumplimentado *varios* cuestionarios, a un grupo de 127 mujeres. (Sp. Psych. 27)

A possible explanation for the high frequency of occurrence of this strategy in the Spanish texts, as far as the description of the methodological procedures used in the research are concerned, is that, as Salager-Meyer (1994) has pointed out, these devices may not necessarily reflect uncertainty or fuzziness, but may be used to save time and effort when exact figures are irrelevant. It might also be the case that the rhetorical practices of conference abstracts (i.e. the avoidance of including exact figures since they are on many occasions unavailable at the time the abstract is written), have been extended to the RA abstract writing conventions in Spanish.

### 6. 4. 3. Analysis of the “strategy of camouflage” hedges

The results of the analysis revealed that the use of metalinguistic operators, with the main function of attracting the reader’s attention to obtain more acceptance for the content of the proposition that follows, is not favoured in abstract writing in either of the languages. The few expressions of this type, which contribute to reducing the risk of a possible negative reaction of the reader, were found in two of the Spanish texts:

*Es evidente que, esta diferencia se puede reducir al aumentar la exposición a los estímulos discriminativos. (Sp. Psych. 18)*

*Por todo ello, sostenemos que: Tests, sí, y factores, también por favor. (Sp. Psych. 36)*

The most likely explanation for the lack of popularity of this strategy in both languages may lie in the fact that this is the strategy that offers the least degree of protection to the author’s face (see section 6.5. for a discussion on the degree of protection of hedging devices). Consequently, writers prefer to use other hedging strategies which are more effective shields.

#### **6. 4. 4. Analysis of first person forms of cognitive and performative verbs**

The analysis revealed that this strategy was not much favoured among the writers of the abstracts in either of the languages. There is only one case in English and two in Spanish in which the writers used this rhetorical option to present their knowledge claims, in a way which displays personal attribution but which is mitigated by the co-occurrence of cognitive and performative verbs, which reduce personal commitment and show respect for the reader's opinion:

*We hypothesized* that this technique helped students to focus attention... (Eng. Psych. 23)

*Creemos* que no poseen dos modos diferenciados y que constituyen una sola clase. (Sp. Phon. 25)

No instances of expressions of *the author's personal doubt and direct involvement* (i.e. *to our knowledge, in our view*) were found in the sample analysed. This similarly indicates that expressions of this type are not favoured by the writers in either the English or the Spanish abstracts.

### 6. 4. 5. Analysis of quality-emphasising adverbial expressions

The results obtained in the quantitative analysis of the frequency of use and distribution of these attitudinal markers are found in Table 3 below.

Table 3. Frequency of occurrence and distribution of quality-emphasising adjectival and adverbial expressions in the structural units of the abstracts

<b>Structural unit</b>	<b>English</b>	<b>Spanish</b>
INTRODUCTION	9 (64.2%)	11 (52.3%)
METHODS	-	-
RESULTS	2 (14.2%)	1 (4.7%)
CONCL/DISCUSSION	3 (21.4%)	9 (42.8%)
<b>Totals</b>	14 items	21 items

As can be readily appreciated, the writers in both languages make use of a series of adjectives and adverbs which reveal the writers' attitude to the content of a proposition and, as Myers (1989) has remarked, may show solidarity by inviting the reader to become involved in the research and persuade her/him to grant acceptance for the claims made. In the sample

analysed there were instances of expressions such as *unfavourable* (Eng. Phon. 23), *particularly worthwhile* (Eng. Psych. 27), *reliable* (Eng. Phon. 35); *indudable* (Sp. Phon. 13), *desafortunadamente* (Sp. Phon. 20), *componentes esenciales* (Sp. Phon. 33), *enormemente* (Sp. Phon. 38), *difícil interpretación* (Sp. Psych. 4).

The overall results in Table 3 show that there is a higher preference for the use of these expressions by the Spanish writers: There were 21 instances recorded in the Spanish abstracts and 14 in the English texts.

Most of these devices occur in the Introduction units (64.2% of the cases in English and 52.3% in Spanish), particularly in the subunit corresponding to Move 1 in which the writers highlight the relevance of their research. In these cases, the use of these linguistic devices contributes to emphasising the importance of their work:

Our understanding of phonological acquisition has benefited *immensely* from cross-linguistic investigations... (Eng. Phon. 37)

This program is *of particular interest* because... (Eng. Psych. 29)

Por este motivo la aplicación de las investigaciones de fonética acústica (...) es considerada de *gran utilidad*. (Sp. Phon. 34)

Recientemente existe *un gran interés* en la relación entre (...). Debido a ello, la cuantificación de (...) está adquiriendo

*importancia*. (Sp. Psych. 6)

These expressions were also frequently found in the Conclusion / Discussion unit of the Spanish abstracts ( in a 42.8% of the total number of occurrences) in comparison with the lower incidence of occurrence in the English texts (21.4 % of the total number of instances). In most of these cases, the writers try to emphasise the implications of the results obtained, as in the following examples:

These findings indicate that (...) dynamic properties of speech are *particularly important* in the perceptual compensation for speaker variability. (Eng. Phon. 14)

We concluded that (...) young children can in principle cope with the spatial demands made by graphs *surprisingly well*. (Eng. Psych. 4).

Del análisis se deducen conclusiones *interesantes*, tales como... (Sp. Psych. 12)

Las implicaciones académicas de todo ello pueden ser *relevantes* ... (Sp. Psych. 28)

No instances of quality-emphasising adjectival and adverbial expressions were found in the Methods unit of either the English or the Spanish texts.

#### 6. 4. 6. The analysis of agentless passive and impersonal constructions

The overall figures presented in Table 4 below reveal that this rhetorical strategy is quite frequently used by both the English and Spanish writers.

Although the frequency of occurrence of these expressions is slightly higher in Spanish, the distribution of these elements across the different structural units is similar in both languages.

Table 4. Frequency of occurrence and distribution of passive and impersonal constructions in the structural units of the abstracts

Structural units	English	Spanish
INTRODUCTION	45 (22.7%)	73 (32.1%)
METHODS	65 (32.8%)	86 (37.8%)
RESULTS	37 (18.6%)	33 (14.5%)
CONCL/DISCUSSION	41 (20.7%)	35 (15.4%)
<b>Totals</b>	198 constructions	227 constructions

The Methods unit is where the writers opted for this strategy most frequently (32.8% of the cases in English and 37.8% in Spanish). Typical expressions found in the corpus are “The subjects *were asked/ given/*



*invited...*”, “The data *was examined/ compared/ analysed...*”; “*Se utilizó, se registró, se empleó...*”. In these cases, the passive voice allows the writers to describe the materials and methodological procedures in a detached way, thus avoiding direct personal attribution. Hyland (1998) suggests a further motivation for the use of the passive in this context:

A central aspect of justifying a scientific claim is to demonstrate that standardised and widely accepted procedures have been employed in ascertaining the ‘truth’. Like citing accepted sources, the requirement to spell out procedures as highly routinised, with little room for variability or human initiative, acts as a compelling persuasive device by demonstrating a credible professional ethos (Hyland, 1988: 29).

The frequent use of passive and impersonal constructions in the Methods unit of the abstracts can thus be interpreted as an effort by the writers to demonstrate that they used the appropriate procedures established by previous researchers as part of an accepted scientific method. They demonstrate a deferential attitude to the other members of the disciplinary community. At the same time, the writers show that they are credible and competent members of the discourse community with a mastery of the genre conventions of their discipline, one of which is a preference for the use of passive and impersonal constructions to report procedures.

The second more frequently hedged unit is the Introduction section (22.7% in English and 32.1% in Spanish), especially the sub-unit representing

Move 3 in which the author describes the main features of his/her research. On these occasions, the writers used passive constructions to avoid making overtly explicit their personal contribution to the research, as in the following examples: “An attempt *was made* to see...”, “The effects of X *are tested/ studied/ reported...*”; “En este artículo *se describe/ se ha procedido/ se examina/ se analiza...*”

The impersonal constructions are quite frequent in the Introduction unit, specifically in the sub-unit corresponding to Move 1 in which the authors show their knowledge of the topic (e.g. “*It has been suggested/ observed/ assumed/ claimed...*”). In these cases, the use of impersonality contributes to reducing the responsibility for the propositions expressed by implying that the writer’s claims are supported by other researchers that share her/his opinion. At the same time, by using these impersonal constructions, the writer avoids attributing responsibility for the claims made to any particular researcher.

The Conclusion/Discussion unit, as noted earlier, is where the highest level of claims are made. The use of impersonal and passive constructions constitutes a useful rhetorical practice (as reported in 20.7% of the cases in English and 15.4% in Spanish) when the writers try to establish the implications drawn from the results obtained in their study. Typical syntactic constructions found in the sample are: “*It is concluded/ suggested that...*”, “The results *are interpreted* as...”, “The findings/ implications *are discussed*”; “Estos resultados *se discuten/ se explican /son discutidos...*”.

Finally, in the Results unit, the writers opted for the use of this device

in 18.6% of the total cases in English and 14.5% in Spanish. This indicates that the writers in both languages prefer to report the main results of their research by using impersonal constructions (e.g. “*It was found/ observed...*”; “*Se obtuvo/ aprecia/ observó/ evidencian...*”).

#### 6. 4. 7. Analysis of impersonal active constructions

The results of the analysis, as presented in Table 5, show that this rhetorical strategy is also favoured by the writers of abstracts in English and Spanish. These results also indicate that the frequency of occurrence of these syntactic structures is slightly higher in the English texts.

Table 5. Frequency of occurrence and distribution of impersonal active constructions in the structural units of the abstracts

<b>Structural unit</b>	<b>English</b>	<b>Spanish</b>
INTRODUCTION	45 (38.1%)	41 (45%)
METHODS	-	-
RESULTS	32 (27.1%)	21 (23%)
CONCL/DISCUSSION	41 (34.7%)	29 (31.8%)
<b>Totals</b>	118 constructions	91 constructions

It was in the Introduction unit of the abstracts in which this rhetorical option was most frequently exercised (38.1% of the overall occurrences in English and 45% in Spanish), and more specifically in the sub-unit corresponding to Move 3, in which the writers indicate the purpose of their research or describe the main features of their study. In 45 cases in English and 41 in Spanish, the authors opted for replacing the personal subject by some impersonal subject that acts as the agent of the research: “*This paper deals with/ reports/ describes/ examines...*”, “*Two experiments studied/ examine/ explore...*”; “*Este trabajo analizó/ presenta/ exploró...*”. This avoidance of writer involvement can be reduced by the introduction of a personal pronoun, as in “*El objetivo de mi trabajo ha sido...*” (Sp. Phon. 5). In this example, the writer makes more explicit his authorship, although there is still some degree of personal detachment as the subject of the proposition is not the author himself but a non-human entity.

It should be noted that there are two cases (one in English and one in Spanish) in which the impersonal subject co-occurs with verbs such as *attempt/pretender*, causing a weakening of the force and a further reduction of the author’s presence in the text:

*This study attempts to find...* (Eng. Psych. 36)

*Este trabajo pretende estudiar...* (Sp. Phon. 15)

As seen in Table 5, in the Conclusion/Discussion and in the Results units a common strategy is the use of impersonal active constructions which, by nominalising a personal projection, suggest that the situation described is independent of human agency. This is a rhetorical practice with a relatively high frequency of occurrence, mainly in the English texts (e.g. “*Analysis revealed...*”, “*These results support/ show...*”, “*The discussion considers...*”; “*Los resultados mostraron/ demuestran...*”, “*El análisis corroboró...*”). On most of these occasions, these non-human subjects are used with epistemic verbs (especially in the English abstracts). This contributes to further reducing the degree of commitment by combining a shift of responsibility from the author to the non-human actor, and a mitigation of claims provided by the aspect of modality which the epistemic verb conveys: “*The results suggest/ indicated...*”; “*Los resultados sugieren/ indicaron/ se ~~anal~~an...*”. Alternatively, the inclusion of personal pronouns increases the authorial presence in the texts, although epistemic verbs are still used, as in the following examples:

*Our findings suggest...*(Eng. Phon. 28)

*Our results indicate...* (Eng. Psych. 35)

It should also be mentioned that there are a few cases in which the impersonal subject was realized by a deictic element in anaphoric relation to a previous unit, i.e. the Results section:

*This implies that...* (Eng. Psych. 3 and 35)

*Esto sugirió que...* (Sp. Phon. 35)

As seen in Table 5, no instances of impersonal active constructions were recorded in the Methods section of any of the abstracts.

## **6. 5. Grading of hedges according to the degree of protection**

Table 6 below shows the overall number of hedging devices realising the various strategies, as described in Chapter 4, section 4.2.6., in both languages.

Table 6. Overall number of hedging devices used in the abstracts.

<b>Strategy</b>	<b>ENGLISH</b>	<b>SPANISH</b>
<i>Indetermination</i> (modality expressions and approximators)	244 (42.4%)	101 (22.7%)
<i>Camouflage</i> (metalinguistic operators)	0	2 (0.4%)
<i>Subjectivisation</i> (first person forms of cognitive and performative verbs, and quality-emphasising adjectival and adverbial expressions)	15 (2.6%)	23 (5.1%)
<i>Depersonalisation</i> (agentless passive and impersonal constructions, and impersonal active constructions)	316 (54.9%)	318 (71.6%)
Totals	575 items	444 items

Considering that the main function of hedges in abstract writing is the minimalization of FTAs, I have attempted to work out a ranking of hedging strategies depending on the degree to which this minimalization of FTAs is achieved.

As noted earlier, the mitigation of FTAs is closely related to the demonstration of deference to the scientific community (see, Myers, 1989). Table 7 represents a possible rank of gradation of the hedging devices

suggested in this study according to the degree of protection realised or the degree of the writer's deference before the scientific community.

Out of the four hedging strategies described below, the strategies that most clearly indicate the writer's deference to the scientific community and that, consequently, most effectively minimise the FTAs involved in this particular communicative situation (abstract writing) are the strategies of depersonalisation and indetermination.

Table 7. Gradation of hedging strategies according to the degree of the protective function realised

Strategy	Degree of protection
	0
<i>Camouflage</i>	+
<i>Subjectivisation</i>	++
<i>Indetermination</i>	+++
<i>Depersonalisation</i>	++++

The latter strategy (epistemic modality and approximators) allows writers to express propositions less categorically and thus make them more acceptable to the reader. This strategy also diminishes the writer's



commitment to the truth value of the proposition. It is, however, the strategy of depersonalisation (agentless passive and impersonal constructions) that allows writers to distance themselves from what they say, thus also reducing their commitment to the truth value of the proposition. Commitment reflects the relation between the writer and the proposition and, at the same time, reflects the relation between the writer and the reader. Therefore, we may assume that the scale of commitment / detachment represents a scale of interpersonal relations between the writer and the community: the higher the degree of detachment, the higher the degree of deference to the community and, therefore, the higher the degree of protection.

It is thus not surprising to find that these two strategies, giving as they do more protection to the writers, are the ones most frequently used in both languages. It should also be noted that there is a significant difference in the frequency of occurrence of the strategy of indetermination. Whereas its use constitutes 42.4% of the total number of hedges in the English texts, this strategy is used in Spanish in 22.7% of the cases, showing that Spanish writers have a clear preference for the use of the strategy of depersonalisation (71.6% of the total number of instances) as a means of realising a hedging function.

The protective strength of the other two strategies (camouflage and subjectivisation) is lower, since they provide some protection for the proposition but they leave the author's face unprotected from possible criticism.

It should also be mentioned that the combination of two or more hedging devices (e.g. the use of modals in conjunction with the passive voice or impersonal constructions) in one proposition increases the degree of protection for the proposition and the author's face, as in the following examples:

*It is suggested* that perceptually and linguistically, *some* differences between pitch patterns *may* not be *quite* categorical.  
(Eng. Phon. 4)

*Los resultados sugieren* que... (Sp. Phon. 15)

## **6. 6. Analysis of first person pronouns in the abstracts**

The results of the analysis showed that both in English and Spanish the use of first person pronouns does not seem to be a predominant feature, although the findings also revealed that abstracts are not totally devoid of authorial presence: The total number of abstracts in English containing first person pronouns is 19 (23.75%), which corresponds in the corpus to the phonetics texts 3, 10, 16, 17, 21, 26, 28, 36, 37, 38, 39 and to the psychology texts 3, 4, 20, 23, 24, 27, 33, 35. With regard to the Spanish texts, the total number of abstracts which show instances of first personal pronouns is 24

(30%), corresponding to the phonetics texts 1, 5, 6, 11, 14, 15, 19, 22, 24, 25, 26, 27, 33, 37 and to the psychology texts 4, 5, 7, 21, 22, 27, 32, 33, 36, 37.

Overall, there were 48 instances of first person forms in the English texts, as presented in Table 1. No instances of first person singular pronouns (*I, me, mine*) were found in the sample.

Table 1. Frequency of occurrence of first person forms in the English abstracts

<i>we</i>	<i>our</i>	<i>us</i>	Totals
38	6	4	<b>48</b>

Table 2. Frequency of occurrence of first person forms in the Spanish abstracts

<i>yo</i>	<i>mi</i>	<i>me</i>	<i>nosotros</i>	<i>nuestro/s</i>	<i>nos</i>	Totals
6	1	0	40	4	6	<b>57</b>

As regards the Spanish corpus, there were 57 expressions of first person forms. The distribution can be seen in Table 2. There were no explicit occurrences of the pronouns *yo/nosotros*<sup>2</sup>. The first person singular/plural

---

<sup>2</sup> The personal pronouns are not generally included in Spanish since person is marked with the verbal endings. The explicit occurrence of pronouns typically conveys an emphatic or contrastive meaning.

pronouns are marked in all cases with the verbal ending (e.g. *realicé/realizamos*).

As can be inferred from Tables 1 and 2, six instances of the use of the first person singular pronoun were found in the Spanish texts. This use implies the highest degree of authorial presence. On the other hand, the English texts exhibited no examples of this pronoun. The most frequently used form in both languages was the plural pronoun *we-nosotros*, which may have different semantic references and perform various discursal roles as discussed in the following subsection.

### **6. 6. 1. Semantic references and discourse functions of first person pronouns**

A further analysis of the cases of first person plural pronouns revealed that they have a number of semantic references and perform multiple socio-pragmatic functions in the abstracts. Following earlier studies (Ivanic, 1998; Kuo, 1999; Tang & John, 1999; and Hyland, 2001), I attempted to establish a classification which shows the degree of authorial presence through a particular instance of the use of the pronouns.

A first person plural pronoun can have either *inclusive* or *exclusive* semantic reference. In the classification proposed here I have made a strict

separation between these two broad categories:

1. **Inclusive** first personal pronoun, which refers to both writer and reader.
2. **Exclusive** first personal pronoun, which refers only to writers.

### 1. Inclusive

This role represents a generic use of the first person pronoun, realised as the plural we / us or nosotros (implicit in the verb ending) / nos, that writers use to refer to a large group of people. In this function, far from giving the reader information about the writer, the first person pronoun reduces the writer almost to the point of being a non-entity. Therefore, in terms of the potential authorial presence displayed in the text, this is the least powerful role that the first person pronoun can perform. In this study, I have divided this category into two subtypes:

**Inclusive 1.A.** This represents the weakest indication of authorial presence through first person pronouns. In these cases, the pronouns refer to people in general, as in the following examples:

A second major gap is in defining the kinds of task on which discrepancies may be expected to occur, since in every

day life we do quite frequently expect people to know what they are doing. (Engl. Psych. 3)

The faces of twins present us with a very complex visual task. How do we get from the stage of being unable to distinguish between the twins, to being able to identify each twin correctly and readily by name?. (Engl. Psych. 20)

In the English sample there were 10 instances of this function distributed across two abstracts, whereas in the Spanish texts no examples of this role were found.

**Inclusive 1.B.** In this other subcategory, the plural pronouns refer to a smaller group of people, namely the members of the discourse community, as in the following examples:

Si tenemos en cuenta, tal como se deriva de un gran número de investigaciones, que la conducta antisocial en la adolescencia (...), podríamos inferir que... (Sp. Psych. 33)

Voiceless velar stops may become palatoalveolar affricates before front vowels (...). Nevertheless, we do not have an adequate understanding of how this sound change takes place. (Engl. Phon. 17)

This function may represent an attempt on the writers' part to signal their desired membership of the discourse community by displaying knowledge of the facts and opinions that are generally accepted by the disciplinary group. This use reduces the distance between writers and audience and emphasises solidarity, indicating shared knowledge between the writer and the reader, and a presupposition of the writer's acceptance by the discourse community. Three instances of this function were found in the English texts and two instances in Spanish.

## **2. Exclusive**

This second form of semantic reference has a greater degree of authorial presence as it refers exclusively to the writer himself/herself. Several roles performed by the first person pronoun can be described. These roles or functions reflect the specific communicative purpose of the writer in a certain part of the abstract. In the sample analysis, I found five different roles, which I have labeled as follows:

- 2.1. The author as describer of the research.*
- 2.2. The author as experiment conductor.*
- 2.3. The author as opinion holder.*
- 2.4. The author as cautious claim maker.*
- 2.5. The author as fully committed claim maker.*

Each of these socio-pragmatic functions has been divided into two subtypes:

- A. When *we* is used in single-authored texts instead of *I*.
- B. When *we* is used in texts written by more than one author.

The reason for this division is that I consider that in type A there is a lower degree of authorial presence than in type B, in terms of situating these two options on a continuum. The decision to use *we* by writers of single-authored texts arguably indicates an intention to reduce personal attribution although, according to Hyland (2001), it is not always the self-effacing device it is often thought to be. Hyland cites Pennycook (1994:174) who observes that “there is an instant claiming of authority and communality in the use of *we*”. Hyland goes on to argue that the distancing which attends the plural meaning seems to create a temporary dominance by giving the writer the right to speak with authority. Therefore, using this strategy, writers can simultaneously reduce their personal intrusion and yet emphasise the importance that should be given to their claims.

This appears to be a relatively frequent strategy in the Spanish texts. In six of the abstracts written by single authors, the writer chose to use a *we*-form with the function described (Phon. 1, 26, 27, 33, 37 and Psych. 21) in contrast with the only case found in the English abstracts:

We used an existing data base of vowel sounds (...) and



we compared... (Eng. Phon. 10)

As seen in this example, apart from distancing him/herself from his/her claims in the abstract, another possible reason for its use, as suggested by Hyland (2001), might be that the writer is reporting research carried out by a team, and so s/he could be acknowledging the part played by his/her colleagues. In any case, it is clear that there is some kind of reduction of authorial presence when a *we*-form is used in single-author texts; therefore, I considered it appropriate to maintain this distinction in each of the roles proposed above.

### **2.1.** *The author as describer of the research.*

This use of the first person pronoun foregrounds the person who writes, organises, structures the discourse and outlines the material in the abstract. This function is also related to the representation of the author as stating the goal or purpose of the research. This is a relatively non-threatening role, as the writer informs but does not actually make claims.

**2.1.A.** No examples of *we*-forms with this function performed in single-author texts were found in English. In the Spanish sample I found five instances in the Introduction section of the abstracts written by single-authors.

Four of the cases corresponded to Move 3 - step 1A/B (*Outlining purposes/ Announcing present research*), in terms of Swales' (1990) CARS model, as in the following example:

Presentamos aquí dos de los objetivos de esta investigación:... (Sp. Phon. 27)

On one occasion, this role corresponded to Move 3 - step 3 (*Indicating the research article structure*):

Presentamos una descripción del programa que incluye los componentes del programa, el diseño, los resultados y conclusiones. (Sp. Psych. 37)

**2.1.B.** This is the function most frequently used by the writers in both languages: There were 14 instances in the English texts and 12 in Spanish. All cases were used in the Introduction unit of the abstracts, in which the authors present the purpose of their research (Move 3 - step 1A/B). Typical linguistic exponents are: we examine..., we report..., our goal is..., we investigated...; el objetivo de mi trabajo ha sido..., hemos realizado..., exponemos..., analizamos....

## 2.2. *The author as experiment conductor.*

In this function, the writer uses the first person pronouns to describe or recount the various steps of the research process. The work done by the researcher prior to the writing of the paper includes such things as interviewing subjects, collecting data and so on. Unsurprisingly, this role is typically found in the Methods section of the abstracts and is often signalled by the pairing of the first person pronoun with what Halliday (1994) calls material process verbs (i.e. *work, collect, interview*) used in the past tense. Author presence here serves to reassure the reader of the writer's professional credentials through a demonstrable familiarity with disciplinary practices (Ivanic, 1998). In addition, it highlights the part the writer has played in a process that is frequently represented as agentless.

**2.2.A.** There were two instances of this function in one single-authored abstract, and five instances in Spanish:

We used an existing data base (...). We compared the results with data on... (Eng. Phon. 10)

Llevamos a cabo tres experimentos paralelos, con un total de 129 sujetos: 84 hablantes nativos de chino mandarín que clasificamos en 5 niveles... (Sp. Phon. 33)

**2.2.B.** The frequency of occurrence of this usage is fairly high in both languages. There were 8 cases in the English abstracts and 7 in Spanish. Some of the examples found in the Methods unit are the following: we compared..., we varied..., we presented..., we asked...; recogí..., grabé..., hemos establecido..., hemos realizado...

### **2.3. *The author as opinion holder.***

The writer, in this function, shares an opinion, view or attitude (for example, by expressing agreement or interest) with regard to known information. This role co-occurs with verbs of cognition (e.g. *think, believe; pensar, creer*). It seems that, by using these verbs the authors display appropriate respect for alternatives and invite the reader to participate in a debate, while expressing conviction at the same time. Therefore, this function allows writers to make their claims by conveying caution with commitment.

**2.3.A.** No instances of this function were found in any of the single-author abstracts in English or Spanish.

**2.3.B.** The only example with this function was found in one of the abstracts in Spanish in the Introduction unit, corresponding to Move 2 - step 1A, in Swales' (1990) model. In this instance, the writers express

disagreement with the work of a previous author and make a claim using a verb of cognition in the first person. As noted earlier, this strategy allows them to display authorial presence which expresses commitment and simultaneously to show respect for the reader's opinion:

(...) creemos que no poseen dos modos diferenciados y que constituyen una sola clase. (Sp. Phon. 25)

#### **2.4. *The author as cautious claim maker.***

The writers use this function to establish a more personal sense of authority based on confidence and command when showing the results of their research and drawing the conclusions. However, the degree of authorial presence is somewhat diminished by the use of first person pronouns co-occurring with lexical devices such as modal auxiliary verbs (*may, might, can/poder*), semi-auxiliaries like *to seem, to appear/parecer*; epistemic verbs like *to suggest/sugerir, to indicate/indicar*; or modal adverbs, nouns and adjectives (*perhaps/quizás, possibility/posibilidad, possible/posible*), which perform the discourse function of hedging a claim. As was stated in Chapter 4, hedging is a strategy frequently used in academic discourse as a means of mitigating the writer's responsibility for the claims expressed. Hedges show modesty by tentative statements and invite readers to draw inferences for

themselves. Hedges, simultaneously, protect the writer from possible criticism from other researchers by expressing caution.

**2.4.A.** There were no examples in the English and Spanish texts of first person pronouns with this function performed in single-author abstracts.

**2.4.B.** In the English abstracts there were three instances of this function and two instances in Spanish:

Our findings *suggest* that... (Eng. Phon. 28)

Our results *indicate* that... (Eng. Psych. 35)

(...) con lo cual *podemos* pensar que los índices invariantes hay que buscarlos *probablemente* ... (Sp. Phon. 24)

Sugerimos por tanto, que... (Sp. Psych. 5)

**2.5.** *The author as fully committed claim maker.*

This role represents the highest degree of authorial presence that a writer can display with the use of first person pronouns, in that it involves the writers claiming authority and exhibiting some form of

ownership for the claims stated in the text. It also shows that writers perceive themselves as competent researchers who have the right and ability to originate new ideas. As Hyland (2001) has pointed out, this function serves to foreground explicitly the writer's distinctive contribution and full commitment to her/his position. This use also suggests the conscious exploitation of a strategy to manage the readers awareness of the writer's role, his/her attempt to take a position in relation to the community and to seek credit for that position.

**2.5.A.** Most of the single-author abstracts in Spanish exhibited this usage. There were 12 instances in the Spanish texts (the highest frequency of occurrence) whereas in the English abstracts no cases of this use were reported. In the Spanish sample, all cases in which the writers used this function occurred in the Results and Conclusion/Discussion sections of the abstracts, which is where the writers make the highest level of claims:

Hemos conseguido demostrar que... (Sp. Phon. 26)

El análisis acústico (...) corroboró nuestras expectativas de que... (Sp. Phon. 37)

No encontramos relación alguna entre... (Sp. Psych. 21)

**2.5.B.** In both the English and Spanish texts the frequency of occurrence of this role was quite high in relation to the total number of examples (there were 8 cases in English and 11 in Spanish). Two instances in English occurred in the Introduction section (Move 1) of one of the abstracts, in which the authors show their knowledge of their research topic and establish the relevance of their work:

We have shown in earlier work that (...). More recently, we demonstrated that... (Eng. Phon. 21)

The rest of the instances always occurred in the Results and Conclusion/ Discussion sections of the abstracts, in which the authors make their knowledge claims directly, explicitly displaying their authorial presence:

Our study shows that... (Eng. Phon. 3)

We found no evidence that (...). We concluded that... (Engl. Psych. 4)

We did not find... (Eng. Psych. 33)

Hemos encontrado evidencias... (Sp. Phon. 19)

Nuestros datos revelan que... (Sp. Psych. 7)

Sostenemos que... (Sp. Psych. 36)



It is also worth noting that there was an example in the Spanish corpus in which the writers did not use a first person pronoun to refer to themselves but a self-mentioning term (*los autores*):

La inconsistencia de algunos resultados junto con (...), son factores que llevan a los autores a cuestionar la hipótesis de que EE esté determinado socioculturalmente. (Sp. Psych. 30)

The six semantic roles and their variants that I have described above can be represented along a continuum (Fig. 1) in which the first function (*Inclusive 1.A.*) shows the lowest degree of authorial presence, whereas the last function (*Exclusive 2.5.B. - The author as a fully-committed claim maker*) shows the highest degree:

Fig. 1. Continuum representing the degrees of authorial presence from lowest towards highest.

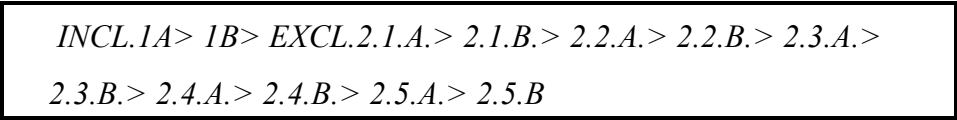


Table 3: Frequency of occurrence and distribution of discourse functions in the abstracts

DISCOURSE FUNCTIONS	ENGLISH	SPANISH
<i>1. Inclusive-we</i>		
<i>1.A.</i>		0
<i>1.B.</i>	10 (20.8%) 3 (6.2%)	2 (3.5%)
<i>2. Exclusive-we</i>		
<i>2.1. The author as describer of the research</i>		
<i>2.1.A.</i>		5 (8.7%)
<i>2.1.B.</i>	0	12 (21%)
<i>2.2. The author as experiment conductor</i>	14 (29.1%)	
<i>2.2.A.</i>		5 (8.7%)
<i>2.2.B.</i>	2 (4.1%)	7 (12.2%)
<i>2.3. The author as opinion holder</i>	8 (16.6%)	
<i>2.3.A.</i>		0
<i>2.3.B.</i>	0	1 (1.7%)
<i>2.4. The author as cautious claim maker</i>	0	
<i>2.4.A.</i>		0
<i>2.4.B.</i>	0	2 (3.5%)
<i>2.5. The author as fully committed claim maker</i>	3 (6.2%)	
<i>2.5.A.</i>		12 (21%)
<i>2.5.B.</i>	0 8 (16.6%)	11 (19.2%)
TOTALS	48 instances	57 instances

The frequency of occurrence and overall distribution of the various roles in both languages are presented in Table 3 above:

## 6. 7. Analysis of academic conflict in the abstracts

The overall results, as seen in Table 1, show that the writers in both languages make use of a series of rhetorical strategies to criticise their peers' work. A detailed classification of all the cases of AC which I found in the sample analysed is reported in Appendix E.

Table 1. Overall frequency of occurrence of AC in the abstracts.

	<b>English</b>	<b>Spanish</b>
No. of abstracts with AC	31 (38.75%)	16 (20%)
Total No. of cases of AC	45 instances	19 instances

These results reveal that the frequency of occurrence of AC is higher in English: There were 31 abstracts out of the total of 80 (38.75%) containing instances of AC, as opposed to 16 abstracts in Spanish (20%). The overall number of instances of AC in English is also higher: 45 cases of AC were recorded in all the English abstracts analysed in contrast to the 19 examples

found in the Spanish sample.

Table 2. Total number of cases with or without writer mediation, and reported AC.

	English	Spanish
<i>Writer-Mediation</i>	-	-
<i>No Writer-Mediation</i>	43 (95.5%)	17 (89.5%)
<i>Reported</i>	2 (4.4%)	2 (10.5%)
TOTALS	45 instances	19 instances

As seen in Table 2, a comparison of the three dimensions of analysis revealed a clear rejection in both languages of the strategy of conveying AC with writer mediation: The writers chose in all cases not to make explicit their authorial presence in the critical speech acts. Table 2 also shows that there were only four instances of *reported* criticism in both groups of abstracts (two in Spanish and two in English). The following are examples of reported AC:

***It has been suggested that the manual sign systems designed to represent English are unlearnable*** because they are not natural languages. (Eng. Psych. 31)

***Distintos autores han criticado la utilización de este índice como medida del ajuste apuntando varios inconvenientes.*** (Sp. Psych. 7)

The preferred option in both languages was to convey AC without writer mediation. However, a close examination of the instances of *no writer mediation AC* (*personal/impersonal* dimension) revealed a difference in the preference for particular rhetorical strategies in each language, as seen in Table 3 below.

Table 3. Total number of cases of Non Writer-Mediated AC: Personal/Impersonal dimension.

	<b>English</b>	<b>Spanish</b>
<i>Personal</i>	8 (18.6%)	9 (52.9%)
<i>Impersonal</i>	35 (81.3%)	8 (47%)
TOTALS	43 instances	17 instances

The writers in English opted for *Impersonal AC* in 81.3% of the cases, whereas this strategy was less frequent in the Spanish texts (47%). There was a correspondingly greater preference in the Spanish abstracts for the use of *Personal AC* (52.9% of the cases). An illustration of each of these categories can be seen in the following examples<sup>3</sup>:

---

<sup>3</sup> As Salager-Meyer (1998, 1999, 2001) has pointed out, the instances of AC (in common with most pragmatic textual features) do not always correspond to individual words or phrases because they are built into the text structure as a whole. The examples provided in this section should, therefore, be considered in their broad contextual environment.

In each experiment the predictions of the no-rise view *are supported* and **those of the rise-fall dichotomy are falsified.** (Eng. Phon. 2)

De ser eso cierto, *estaríamos en desacuerdo con Miller y cols. cuando afirman que...* (Sp. Phon. 37)

It should be noted here that there was one instance in Spanish which I have classified as *Personal* although there is no explicit reference to the authors in the abstract. This is a case in which the writers criticise the results of previous work they carried out themselves, in a bid, one assumes, to justify their new research. The reason for this categorization is that a personal reference is implicit in the text:

Primera parte de un estudio de replicación de la investigación EE realizado en la Comunidad Autónoma Vasca (...). La inconsistencia de algunos resultados junto con la falta de criterios comunes en la elección de las muestras, **son factores que llevan a los autores a cuestionar la hipótesis de que EE esté determinado socioculturalmente.** (Sp. Psyc. 30)

As regards the total number of citations found in those cases of Personal AC, although we might expect that the English texts would contain a greater number of works cited than the Spanish abstracts, considering that

there is greater competition to publish in English and a greater need to establish the novelty of research, the results showed that only one of the abstract writers in English directed her/his criticism to more than one author (12.5%), whereas in the Spanish texts the writers directed their criticism in four of the cases (44.4%) to more than one source.

Table 4 below reveals another difference as regards the use of rhetorical strategies to convey AC in the + / - *Hedging* dimension (*No writer mediation*).

Table 4. Total number of cases of No Writer-Mediated AC: -Hedging/ +Hedging dimension.

	<b>English</b>	<b>Spanish</b>
- <i>Hedging</i>	12 (27.9%)	13 (76.4%)
+ <i>Hedging</i>	31 (72%)	4 (23.5%)
TOTALS	43 instances	17 instances

Most writers in English opted for making their critical speech acts indirectly (72%), whereas in Spanish I found the opposite tendency: In 76.4% of the cases the writers in Spanish used no hedging devices. An example of each category is given below:

However, attempts to link these covarying articulations to tongue movement physiologically **have been largely unsuccessful**. (Eng. Phon. 7)

Conocer la eficacia de los diferentes tratamientos del dolor y la influencia de efectos inespecíficos o placebo en dicha eficacia, **sigue siendo un reto**. (Sp. Psych. 38)

Although the effect of indirectness is conveyed in all cases by means of the various hedging devices that have been described above, there was an example in English in which the criticism was preceded by a praise element that also contributed to reducing the force of the critical speech act that followed, performing in this way a mitigating function:

While we see their interest in utilizing discourse analysis to be very appropriate, **it manifests some serious shortcomings**. (Eng. Psych. 27)

It should also be mentioned that there were a few cases in which the classification of direct/indirect AC (- / +*Hedging*) was the result of balancing the mitigating effects of hedging devices and the reinforcing effects of intensifiers. Thus, the following example was categorised as an instance of -*Hedging* AC (direct), as the use of the intensifier ‘in no way’ changes the polarity of the hedge ‘can’, and furthermore overrides the mitigating effect



that the passive voice might have:

**In no way *can* the schwa *be considered* as the ‘bench-mark’ of a speaker’s vowel system. (Eng. Phon. 10)**

Similarly, I classified the following example as *-Hedging AC* because, although the subject of the critical speech act is a non-human entity (*los datos*), the writers themselves take the ultimate responsibility for the claim made by displaying explicitly their authorial presence through the use of the first person possessive pronoun (*nuestros*):

**Nuestros *datos revelan* que el ajuste lineal es el mejor... (Sp. Psych. 7)**

Tables 5 and 6 below show the distribution and frequency of occurrence of the different rhetorical strategies used to convey AC (*No writer mediation*) in each of the structural units of the abstracts. It should be made clear that the percentages given in these tables refer to the overall number of occurrences in the total number of abstracts regardless of the specific structural unit in which they occur.

Table 5. Number of cases of Non Writer-Mediated AC per structural unit and type in the English abstracts.

	Introd.	Meth.	Results	Con./Dis	TOTALS
<i>Pers./-Hedg.</i>	1 (2.3%)	-	1 (2.3%)	-	2 (4.6%)
<i>Pers./+Hedg.</i>	2 (4.6%)	-	2 (4.6%)	2 (4.6%)	6 (13.9%)
<i>Imper./-Hedg</i>	5 (11.6%)	-	1 (2.3%)	4 (9.3%)	10 (23.2%)
<i>Imper./+Hedg</i>	13 (30.2%)	-	3 (6.9%)	9 (20.9%)	25 (58.1%)
TOTALS	21 (48.8%)	-	7 (16.2%)	15(34.8%)	<b>43instances</b>

Table 6. Number of cases of Non Writer-Mediated AC per structural unit and type in the Spanish abstracts.

	Introd.	Meth.	Results	Concl./Dis	TOTALS
<i>Pers./-Hedg.</i>	1 (5.8%)	-	-	6 (35.2%)	7 (41.1%)
<i>Pers./+Hedg.</i>	-	-	-	2 (11.7%)	2 (11.7%)
<i>Imper./-Hedg</i>	5 (29.4%)	-	-	1 (5.8%)	6 (35.2%)
<i>Imper./+Hedg</i>	1 (5.8%)	-	-	1 (5.8%)	2 (11.7%)
TOTALS	7 (41.1%)	-	-	10 (58.8%)	<b>17instances</b>

From these tables we can infer that it is in the Introduction (48.8%) and Conclusion/Discussion units (34.8%) where most cases of AC occur in the English texts. Likewise, the Conclusion/Discussion units in Spanish

present the highest number of occurrences of AC (58.8%) followed by the Introduction unit (41.1%). The Results unit in the English texts has a lower incidence (16.2%), and in Spanish no instances of AC were recorded in this unit. No examples of AC were found in the Methods unit in either of the languages.

From Tables 5 and 6 we can also infer that the writers in English prefer to convey AC in an Impersonal, Indirect way (in 58.1% of the cases), whereas in the Spanish texts the preferred option for conveying AC is in a Personal, Direct way (in 41.1% of the cases), although the strategy of Impersonal, Direct is also a strong favourite (35.2%).

## *Chapter 7*

---

### **Conclusions**

#### **7. 0. Introduction**

In this concluding chapter I summarise, in the first section, the results obtained from the analyses carried out in this study. In the following section an interpretation of these findings is provided. I then go on to give a possible account for the differences and similarities encountered between both groups of texts. I finally discuss the pedagogical implications and applications that this study may have, and give some suggestions for further research that

might complement and expand this cross-linguistic genre-theoretic study.

## **7. 1. Summary of findings**

It will be recalled that the initial research question for this study was to what extent there was rhetorical variation in the ways writers in English and Spanish work to establish themselves in their fields of knowledge. The results of the analyses carried out in this study have revealed that there is indeed some degree of cross-cultural variation in the rhetorical preferences of the writers. This indicates that there are some aspects of abstract writing which are subject to the restrictions of the writing conventions established by the members of a specific disciplinary field in a particular culture (see Box A).

Nevertheless, this study has also revealed that not all aspects of abstract writing in the specific disciplines of phonetics and psychology present cross-linguistic variation in terms of the frequency of occurrence and types of rhetorical strategies used by writers in both languages, that is, certain aspects of the RA abstract writing conventions appear to be conditioned by the requirements of the genre in the two particular language groups (see Box B). It is these aspects that seem to be universal. In this respect, the results obtained in this study would appear to indicate that, to a large extent, the generic conventions established by the international discourse community

have been adopted by the members of the Spanish scientific community in these disciplines. A similar conclusion has been reported by Moreno (1997, 1998) as regards the use of metatext in English and Spanish articles in economics, and by Salager-Meyer et al. (2003) on the use of rhetorical strategies to convey academic criticism in medical research papers.

Box A. Rhetorical conventions which are different across the two groups of abstracts

- Tendency to omit the Results section in the Spanish abstracts.
- Tendency to omit Move 2 (Swales, 1990) in the Introduction of the Spanish abstracts.
- A greater tendency to use the hedging strategy of indetermination (i.e. modality markers and approximators) in the English texts.
- A greater tendency to use first person pronouns with the function of *Inclusive-we* in the English texts.
- A higher frequency of occurrence of single-author texts in Spanish, in which the role of *Exclusive-we* is used to perform all discourse functions, especially *the author as a fully-comitted claim maker*.
- A higher frequency of occurrence of academic conflict in English.
- A preference for conveying AC in an impersonal and indirect way in English, whereas in Spanish the preferred strategies are Personal -Hedging and Impersonal -Hedging.

Box B. Rhetorical conventions which are similar across the two groups of abstracts

- The use of the IMRAD pattern.
- The frequency of occurrence of the Introduction, Methods and Conclusion / Discussion sections.
- The use of most of Swales' (1990) moves and steps in the Introduction section, especially Move 3-Step 1A/B..
- A tendency to merge the Methods unit with a move indicating purpose of describing the main features of the experiment (i.e. Move 3-Step 1A/B).
- The use of some of the rhetorical strategies proposed by Brett (1994) in the Results section, especially *Statement of Findings*.
- The use of some of the moves proposed by Hopkins and Dudley-Evans (1988) and Brett (1994) in the Conclusion / Discussion section.
- The distribution of hedging devices across the macrostructural units.
- The use of impersonal and agentless passive constructions as the prevalent hedging strategy.
- The use of first person plural pronouns and their discourse functions.
- The use of critical speech acts to create a research space.
- The preference for conveying AC without writer mediation.

### **7. 1. 1. Rhetorical structure**

The analysis of the rhetorical structure has shown that RA abstracts in English and Spanish generally conform to a similar pattern of organization which has been conventionalised by the members of the academic community in both languages in the experimental social sciences. This is seen in the fact that, for the most part, both groups of abstracts summarise the four basic structural units which constitute the different sections of the underlying research article. Similarly, these rhetorical elements follow, in all cases, a similar linear sequence which reflects the logical order of the process of experimental research (I-M-R-C/D). This indicates that the requirements of the genre and the field, as imposed by the members of the Spanish and the international English-speaking communities, exert an important role in the configuration of the macro-structure of abstracts. However, a significant difference between the Spanish and English texts was observed as regards the strong tendency to omit the Results section in the Spanish abstracts. The frequency of occurrence of this unit is 41.25% as opposed to 86.25% in the international abstracts written in English. This difference indicates that there may still be socio-cultural factors exerting an influence on the rhetorical structure of the abstracts.

The analysis of the macro-structural units of the abstracts into moves also revealed a high degree of homogeneity in the rhetorical strategies used in the Methods, Results and Conclusion/Discussion units. It was observed that



in 46.9 % of the English abstracts and in 43% of the Spanish texts the writers used the strategy of embedding the Methods unit in the Introduction unit, coalescing with Move 3- Step 1A/B, by means of which, as will be recalled, the purpose or the main features of the study are indicated. The analysis of the Results unit revealed that some of the communicative categories proposed by Brett (1994) were present in both groups of abstracts, mainly a *Statement of Findings*, through which the author reports on the results obtained. The analysis of the Conclusion/Discussion unit revealed that some of the moves proposed by Brett (1994) and Hopkins and Dudley-Evans (1988) were also present in this section. Most of the Conclusion units in the abstracts in both languages began with a statement about the significance of the principal findings or with a move in which the main conclusions or implications of the research are interpreted on the basis of the results obtained.

However, some degree of divergence emerged, mainly in the abstract Introductions. On the one hand, there is a general tendency among the writers in both languages to indicate the purpose or describe the main features of their studies through the use of Move 3, which can be regarded an obligatory rhetorical element, being present as it is in all the abstracts in the sample analysed. On the other hand, the writers in English exhibited a greater tendency to establish the relevance of their research and to show that they are competent members of the discourse community through Move 1 and, more significantly, through Move 2. This second rhetorical option tends to be selected in the abstracts in English relatively frequently (41.77%)

whereas in the Spanish abstracts the incidence is considerably lower (15%). These analyses thus suggest that the abstract Introductions written in English more closely reflect Swales's (1990) model as regards the frequency of use of the three moves, whereas the Spanish abstracts in the same field are less rhetorically complex.

### **7. 1. 2. The use of hedging devices**

The analysis of the various lexico-syntactic elements that perform hedging functions in the abstracts has revealed that this rhetorical strategy is favoured by the writers in both languages.

The total number of hedging devices found in the English texts is 575 as opposed to 444 in Spanish. In terms of the distribution of hedges across the different structural units of the abstracts, the results of this study have shown that there are similarities between the two languages. It is in those sections where the highest level of claims are made (i.e. the Introduction and the Conclusion/Discussion units) in which most hedging devices are used.

As regards the overall frequency of occurrence of hedges, there are also similarities in relation to the use of hedging devices to achieve the strategies of camouflage, subjectivisation and depersonalisation. The last of these strategies has been shown to be preferred by the writers in Spanish (71.6% of the total number of occurrences) and also by the writers in English

(54.9%). This indicates that, despite the fact that the abstracts in both languages are not completely devoid of personal attribution, the use of impersonal and agentless passive constructions is a highly favoured strategy for the writers of abstracts both in English and Spanish.

The most striking difference that can be drawn from the results is that the authors of the English texts use the strategy of indetermination (realised by modality devices and approximators) to a much greater extent than the writers in Spanish. Its use constitutes 42.4% of the total number of hedges in the English texts, whereas in Spanish this strategy is used in 22.7% of the total number of hedges. Similarly, Ventola (1997), in her study of English and Finnish academic texts, found that Finnish writers tended to use less modalization than English writers and showed less variation in their choices of probability expressions. If we consider that the strategy of indetermination provides a high degree of protection (see Table 7, section 6. 5.), it can be concluded that the English abstracts in the experimental social sciences, as a whole, involve more protection of the author's face. The English-speaking writers resort more frequently to making their claims more tentative and indeterminate, and thus mitigate the strength of their assertions in a bid to achieve greater acceptance from the members of the research community.

### 7. 1. 3. The use of first person pronouns

The results of the analyses revealed that, out of the total of 80 English abstracts analysed, 19 presented instances of the various uses of first person pronouns (23.75%), and out of the 80 abstracts in Spanish, there were 24 texts (30%) containing instances of these uses in the texts. This indicates that this is not a prevalent strategy in English and Spanish abstract writing in either language. However, this rhetorical practice is employed by some writers who, in fact, make use of any of the several functions which are performed by first person pronouns and which indicate the various degrees of personal attribution as presented on the continuum (see, Fig. 1, section 6. 5. 1.) which I have proposed in this study.

The analysis of the frequency of occurrence of first person forms showed that the most frequently used pronoun in both languages was the plural form (*we / nosotros*). A further exploration of the distribution of this pronoun and its discourse functions in the texts ( see Table 3, section 6.5.1) revealed that out of the total of 48 instances of the first person pronoun in the English abstracts 14 fell into the category of 2.1.B. (*The author as describer of the research*), which represents 29.1% of the total number of occurrences. This function was also used in 21% in the Spanish texts: There were 12 instances out of the total of 57 uses of first person pronouns. Moreover, in both languages, there is a relatively high frequency of occurrence of the use of function 2.5.B. (*The author as fully committed claim maker*): 8 cases were

reported in English (16.6%) and 11 cases in Spanish (19.2%).

A major difference between the English and Spanish abstracts is related to the high number of uses of first person pronouns in the English texts with the function of *Inclusive-we* referring to people in general (10 instances) in contrast to a complete absence of cases in Spanish. This difference can be explained by the fact that 9 of the instances occurred in a single abstract (Eng. Psych. 20), which should, therefore, be considered atypical. A significant difference, however, can be seen in the higher frequency of single-author texts in Spanish in which *exclusive-we* is used to perform all the five functions, especially 2.5.A. (*The author as a fully committed claim maker*) which accounted for 12 examples in Spanish (21%). In English there were no instances of this use. Moreover, the total number of examples of first person pronouns performing this function (2.5.A+B) was 23 in Spanish (40.3%), in contrast with the 8 examples found in the English texts (16.6%). This indicates, on the one hand, that the writers in Spanish tend to display a higher degree of authorial presence in the abstracts by stating their claims directly, a finding which in turn reflects a higher degree of commitment and authority. At the same time, they favour the strategy of using *we*-forms in single author texts as a way of simultaneously claiming authority and reducing individual responsibility.

#### 7. 1. 4. The use of expressions of criticism

The analysis of academic conflict revealed that the use of critical speech acts in RA abstracts in phonetics and psychology may well be an aspect of academic writing which can be regarded as universal in the sense that it is conditioned by the genre itself. The quantitative analyses of AC presented in section 6. 7., however, showed that the overall frequency of occurrence of AC is higher in the English abstracts (45 cases) than in the Spanish texts (19 cases), and the rhetorical strategies preferred to convey AC in each language differ to some extent. This suggests that these variables are more greatly influenced by socio-cultural factors.

As regards the analysis of the writer mediation dimension, it was shown that in both languages the writers choose to convey AC without writer mediation (there were only two instances of *reported criticism* both in English and Spanish, and no cases of *writer mediation* in either of the languages). The results of the analyses also revealed that two preferences emerge regarding the dimensions of personalisation and directness: In the English texts the authors preferred the *Impersonal +Hedging* option, expressed mostly in the Introduction (mainly Move 2, in terms of Swales, 1990) and Conclusion / Discussion units. On the other hand, in the Spanish abstracts the preferred strategies were *Personal -Hedging* and *Impersonal -Hedging*, expressed mostly in the Conclusion / Discussion and Introduction units.

## 7. 2. Interpretation of findings

A qualitative approach is clearly demanded for the third question explored in this study. It will be recalled that this question probed the way in which writers in both languages position themselves rhetorically so as to gain acceptance for knowledge claims.

The results obtained from the analyses of the preferred rhetorical features in the texts in both languages suggest that, in general terms, for the English-speaking writers the abstract is viewed to a greater extent as a “promotional genre” (Hyland, 2000: 68) than it is by the Spanish academics, in as much as most writers in English make a greater rhetorical effort to highlight the relevance of their work. This is seen in the higher frequency of occurrence of Move 1 in the abstract Introductions, and more significantly of Move 2, which is used with the function of creating a research space. Moreover, the fact that the total number of critical speech acts is higher in the English texts indicates that these writers experience a greater need to justify their work than do their Spanish colleagues.

Another persuasive element that is more prevalent in the English abstracts in comparison with the Spanish texts the Results unit. This suggests a greater need among English-speaking writers to highlight the main findings, presumably in order to draw their audience into reading the accompanying article. For the Spanish writers, on the other hand, this does not seem to be a great concern, possibly because the abstract is a relatively novel genre, as

demonstrated by the fact that the first volumes (I, II, III and IV) of one of the phonetics journals (*Estudios de Fonética Experimental*) did not include abstracts accompanying the articles.

In order to persuade readers that they are competent members of the discourse community, and to avoid potential audience rejection, the writers in English are more cautious in stating their claims than their Spanish counterparts, as seen in the overall higher frequency of occurrence of hedging devices which mitigate the strength of their assertions. Similarly, most writers in English opt for using hedges to mitigate their critical speech acts, and prefer to address the criticism towards the discourse community in general (Impersonal AC) rather than towards specific authors. This concern for maintaining a greater social distance between writers and readers is also seen in the lower degree of authorial presence displayed in the English texts through the use of first person pronouns, since making the author's presence in the texts very explicit may represent a threat to the face of the other members of the scientific community. On the other hand, the writers in Spanish tend to display a greater degree of authorial presence in the abstracts by stating their claims directly, thus reflecting a posture of commitment and authority. This indicates that they do not show as great a concern for distancing themselves from their claims, that is, for showing deference to the research community.

The frequency of use of the rhetorical strategies discussed in this section thus suggests, as stated above, that the abstracts in English perform



a promotional role for the English-speaking writers, in keeping with the expectations of the more competitive English-speaking community. However, the strategies used in the Spanish texts can also be perceived as persuasive if understood in their socio-cultural context, that is, the smaller and less competitive disciplinary community in which the texts are produced.

### **7. 3. Accounting for the differences and similarities**

Most rhetorical practices of the Spanish writers in the discipline of phonetics are shared by the Spanish academics working in the discipline of psychology and it is tempting to assume, given the commonalities, that whatever cross-linguistic variation occurs is the result of interference from the writers' first language. At the same time, however, the writers of international publications in English in the two disciplines analysed share with their Spanish counterparts, to a great extent, similar patterns in move structure and the other rhetorical features analysed here. This being the case, it is essential to arrive at an explanation for both a body of similarities and a body of differences. I argue that while similarities between the two groups of texts can be attributed to the process of norming to the international conventions, differences arise from a wider range of socio-cultural variables than language alone.

One important socio-cultural source of variation is intellectual style. Duszak (1994), among others, has explained rhetorical variation in these terms. She found that Polish academics tend to avoid formulating the purpose of their studies (Move 3) in the introduction of their RAs. Duszak attributes this discourse practice to the influence of German scholarly discourse, which is characterised by delay in the articulation of the main purpose of the text (cf. Hinds, 1990). A similar variation in the rhetorical structure of Czech RAs has been reported by Cmejrková (1996). She also attributes this difference to the influence of the German academic tradition.

The Spanish intellectual style has traditionally been closely connected with that of other European countries, mainly France and Germany (cf. Salager-Meyer et al., 1993). However, like Clyne (1987) on German academic writing, and Mauranen (1993a, 1993b) with respect to Finnish texts, I do not find intellectual style an entirely satisfying explanation largely because of the recent impact on Spanish intellectual style of other traditions.

As Salager-Meyer et al. (2003) have noted, after Franco's death in 1975, with the arrival of democracy, Spanish scientists turned to the current prevailing technological and scientific community, namely that of the United States and the other English-speaking countries. These traditions now provide the main rhetorical reference points for Spanish academic production and counterbalance the influence of Franco-Germanic intellectual styles. Taylor and Chen (1991) explain the discursive differences between Chinese and English academic texts in terms of developmental factors. Like their Chinese

colleagues, Spanish academics are gradually acquiring the writing conventions of the English-speaking community, and indeed publishing and writing in English. One of the factors that indicates that writers of the Spanish scientific community in the disciplines of phonetics and psychology are becoming familiar with the rhetorical conventions of the English-speaking community is the fact that a large number of scholarly texts and materials used at universities are translations from the English. Moreover, many Spanish academics in this field frequently use English-language sources for their research. This is clearly seen in the fact that most of the articles accompanying the abstracts in the corpus of this study include a great number of bibliographical references to Anglo-American sources. Even in the abstracts themselves, when creating a research space, the Spanish writers on many occasions cite the most relevant work by English-speaking authors who are leading figures in their fields.

A second socio-cultural phenomenon that is often cited as a source of variation is differences in the school systems and particularly in approaches to the teaching of writing (see, for example, Leki, 1991). Valero-Garcés (1996) accounts partially for the differences in the use of metatext between English and Spanish economics texts in this way. According to Valero-Garcés (1996), traditionally, the emphasis in Spanish schools has been placed more on content than on form. Valero-Garcés sees this as the main reason for the absence of explicit teaching of formal academic writing in Spanish universities, whereas she notes that in the US educational system, courses on

essay-writing techniques are common in the first year of tertiary education. In the British and Australian education systems too, a great deal of attention is given to the writing of term papers and essays, as well as to intensive reading of academic texts. As a consequence of this, Valero-Garcés argues that English-educated scholars are more likely than their Spanish colleagues to produce more linear and symmetrical papers, and that these are easier to read as a result of the greater use of metatext explicitly orienting the reader, rhetorical practices that have been naturally absorbed through the education systems of the English-speaking countries. In the Spanish educational systems, however, less emphasis is given to writing *per se*, and there is frequently a complete lack of explicit writing instruction.

Although we may be tempted to explain intercultural rhetorical differences in terms of cultural differences such as intellectual style and preferences for writing instruction, a degree of caution is warranted, since academic discourse is shaped by many forces, all of which vary with regard to discipline, research questions or the nature of the discourse community. It is my view, that the most plausible explanation, rather than lying in ‘context of culture’ (cf. Halliday, 1994), must be sought in socio-pragmatic characteristics, that is, the ‘context of situation’: who is writing for whom, where, how and why?.

As noted earlier, a specific aspect that characterises the Spanish and the English-speaking communities is the fact that the relationship between the writers and the discourse community they are addressing is different both in

terms of size and pressure to publish. In this study, therefore, the greater tendency among the English-speaking academics to establish a territory by giving more weight to Move 1, and more significantly to creating a research space (Move 2), can be accounted for by the type of audience the writers are addressing. It may be that the smaller number of members belonging to the Spanish scientific community obviate the need to establish a niche, as authors do not feel the pressure to compete for a research space. For the members of the international community, on the other hand, this practice is quite frequent, since there is a greater need to justify their work. The intense competition to publish and have one's work noticed and cited make Move 2 an obligatory element for these writers.

The same explanation is given by Burgess (1997, 2002). She found that Spanish linguists writing in national journals tended to simply announce their research without previously establishing centrality or establishing a niche in the Introductions. She suggests that this is may be due to the fact that the Spanish discourse community concerned, being relatively small, is one in which most members are familiar with the work of others in the community. There is therefore less need for writers to make a great rhetorical effort to establish the relevance of their work or to create a research space. Fredrickson and Swales (1994, cited in Melander et al., 1997: 253) provide a similar account of the tendency to omit Move 2 in Swedish RA Introductions written by Scandinavian linguists. Likewise, Ahmad (1997) attributes the tendency to delete Move 2 in Malay RA Introductions to the

fact that the Malaysian scientific community is constituted by a small and non-competitive group of scholars.

The tendency to delete the Results unit in the Spanish abstracts may also be explained in socio-pragmatic terms. The need to highlight the main findings of the research, in order to persuade readers of the validity of their new knowledge claims, does not seem to be as great a concern for the members of the Spanish scientific community in the experimental social sciences as it is for the English-speaking writers.

The difference in the frequency of use of certain hedging devices is also amenable to this interpretation. In almost half of the Spanish abstracts the writers do not use any of the epistemic modality devices, pointing to a tendency which may well be motivated by the particular interpersonal relations between writer and reader. An alternative explanation for the low frequency of occurrence of modality in the Spanish abstracts might simply be that this rhetorical strategy has not been conventionalised as part of Spanish academic style, since a hedging function is generally achieved in the Spanish texts by means of the strategy of depersonalisation, which, as has been argued offers the highest degree of protection. Spanish writers may thus consider the use of modality an additional protective strategy which is in fact unnecessary, as in the relatively small community in which they work, the risk of retaliation from a peer is considerably reduced.

This lesser concern for peer criticism may also explain the greater tendency among the Spanish writers to use first person plural pronouns

fulfilling the role which represents the highest degree of authorial presence (i.e. *the author as fully committed claim maker*).

As regards the analysis of academic conflict, the total number of critical speech acts is relatively high in the English texts rendering AC a frequent rhetorical strategy for writers of abstracts in English in international journals in the experimental social sciences of phonetics and psychology. As pointed out earlier, the most plausible reason for this use is the need to justify publication. Furthermore, in order to avoid the face-threatening acts involved in criticism, most writers in English opt for the use of hedging devices to mitigate their claims (indirect AC), and address the criticism to the discourse community in general (impersonal AC) rather than to specific authors (personal AC). As might be expected, given the reduced pressure to publish in Spanish, the writers of Spanish abstracts make less use of AC *per se*.

Notwithstanding, there is no clear explanation for the high incidence of Personal, Direct ACs in the Spanish sample. Salager-Meyer (2001: 21) accounts for a similar finding in her comparison of French and English medical discourse by suggesting that French scientists are much more 'authoritative and categorical' than their English-speaking colleagues. While it might be tempting to arrive at similar conclusions here, an explanation in terms of differing cultural norms once again must be approached with caution.

In fact, there is a high level of *Impersonal* AC in the Spanish texts, and in all the cases of *Personal* AC recorded in the Spanish sample, the criticised authors are well-established key figures in the field at an

international level (mainly British or American researchers). In no case is the target of criticism one of the other members of the Spanish research community. This would seem to imply that criticising colleagues belonging to one's own small national scientific community is not a practice favoured by the Spanish academics whose abstracts form the corpus of this study. Furthermore, it is possible that Spanish scholars do not criticise one another as much as English-speaking writers do because there may be more congruence and consistency among Spanish academics in terms of values and research practices than there is among academics trained in English-speaking countries. This may be the result of Spanish scholars having studied in Spain, in the same few universities, where they were trained by the same small circle of scholars in the discipline. The academics publishing in English-language journals, in contrast, may well have been trained academically in a larger and more diverse group of institutions, and this in itself could be the source of greater variation and divergence of scholarly opinion among the members of the international discourse community. The reason for the high incidence of *Personal AC* and the low figure for hedging devices to mitigate the criticism in the Spanish abstracts could be explained by the fact that the risk of retaliation from the well-established international figures is greatly reduced, as they are not competing directly with the Spanish researchers and are in fact in many cases probably unaware of the existence of these research articles published in Spanish.



In conclusion, the fact that, unlike the Spanish writers, most writers of abstracts in English for international publications use a greater number of critical speech acts (i.e. Impersonal + Hedging), more hedging devices, and display a lower degree of authorial presence in the texts seems to indicate that these are rhetorical strategies used by the English writers to conform to the norms imposed by the international community. It appears that in the English-speaking discourse community it has been established that writers must show a great deal of deference to the other members of the community, and all these conventions have to be followed in response to the fierce competition that exists among the members of this discourse community to see their research published.

Rhetorical variation in the abstracts analysed in this study must thus be interpreted in relation to the specific features of the socio-pragmatic context where the texts have been produced, that is, the relationship between the writers and the discourse communities they are addressing, communities which differ both in terms of size and pressure to publish. In any case, it is difficult to establish to what extent rhetorical variation is conditioned by cultural or socio-pragmatic factors. Only through an ethnographic analysis of writers' motivations for the use of certain rhetorical strategies could one arrive at a satisfactory explanation for where the boundaries between cultural background and socio-pragmatic aspects lie.

#### **7. 4. Refinements of the models of analysis used in this study**

The models which have been used in this study for the analysis of the rhetorical organization of the abstracts have proved to be valid for the description of the texts in terms of moves and steps. However, since these models have been conceived for the analysis of research articles, and considering that abstracts represent a summarised version of the underlying article, it was not surprising to find that many of these moves were inoperative in the abstracts analysed.

On the basis of the results obtained in this study from the analysis of the rhetorical units of the abstracts in English and Spanish, a tentative model to account for the rhetorical structure of RA abstracts in the experimental social sciences is provided in Table 1. This model draws from the three-move schema posited by Swales (1990) for the analysis of RA Introductions, and the models proposed by Brett (1994), and Hopkins and Dudley-Evans (1988) for the analysis of the Results and the Conclusion / Discussion sections of RAs. Although typically any of the abstracts analysed contains most of the moves described in Table 1, I have shown in brackets which of these moves appear to be optional or obligatory.

Table 1. A proposed model for the analysis of textual organization of RA abstracts in the experimental social sciences

---

Move 1 - *Locating the research study within its field* (Optional)

Submove 1A - Highlighting the importance of the research, and/or

Submove 1B - Stating current knowledge, and/or

Submove 1C - Citing previous research

Move 2 - *Justifying the research* (Optional)

Submove 2A - Indicating a gap, and/or

Submove 2B - Counter-claiming, and/or

Submove 2C - Asking questions

Move 3 - *Presenting the research* (Obligatory)

Submove 3A - Indicating main features, and/or

Submove 3B - Indicating main purpose

Move 4 - *Describing the research methodology* (Obligatory)

Move 5 - *Summarising the main findings* (Obligatory)

Move 6 - *Discussing the results* (Obligatory)

Submove 6A - Stating the significance of findings, and/or

Submove 6B - Drawing conclusions, and/or

Submove 6C - Stating the implications of findings

With regard to the taxonomy of hedging devices proposed in this study, as mentioned earlier, hedging is a linguistic phenomenon which has been understood in a variety of ways. For this reason, there is little agreement among linguists about which elements should be classified as hedges. Not everybody would agree, for instance, with including the strategy of depersonalisation (i.e. agentless passive and impersonal constructions, and impersonal active constructions) as a hedging device. Although use of these constructions have the rhetorical effect of minimizing the interpretative role of the researcher and, therefore, of suppressing the author's voice, it might be argued that for this distinction the type of criterion used is not epistemic (i.e. not typically used to increase or diminish the force of the claim), but it has rather more to do with the pragmatic criterion of who is taken to assume the responsibility for the claim being stated. The passive constructions could thus have been regarded as a 'distancing strategy' rather than a hedging phenomenon, i.e. a mitigating feature.

As regards the validity of the taxonomy presented in this study for the analysis of rhetorical strategies used to convey AC in scientific texts, as presented in Fig. 1 (Chapter 4, section 4.4.1.), the results indicated that this model served the purpose of classifying the full range of rhetorical strategies available to writers to convey AC in the abstracts in both languages. However, there are a series of points that need further refinement:

Some limitations as regards the quantitative application of the approach to academic criticism emerged, mainly that each of the three

dimensions represented in the model (i.e. writer mediation, personalisation and directness) may be better understood as continua rather than as exclusive ‘either/or’ options (cf. Burgess & Fagan, 2002).

In the classification used to measure the degree of writer mediation or responsibility for the critical speech acts made, it can be argued that in example 7 above (Chapter 4, section 4.4.1.) it is not necessary to add “*I consider/believe... this assumption is reductionist*” in order to classify this instance of AC as a case of writer-mediation, in as much as the writer is ultimately the one who is responsible for the criticism made. In this regard, a more refined classification should be made to measure more satisfactorily the degrees of writer mediation in terms of distancing strategies. From this perspective, the claim “This assumption is reductionist” could be classified as neutral in terms of degree of writer mediation, rather than a case of no writer mediation, since the writer implicitly assumes full responsibility for the criticism made. Then, if we consider the agentless passive and impersonal constructions as distancing strategies rather than hedging devices (see, for example, Moreno, 1998), these would be next on this side of the scale (e.g. “This assumption was found to be invalid”). Next, taken as distancing strategies, we would place those cases in which the writers further diminish their presence in the texts by using impersonal active constructions in which the personal subject is replaced by some non-human entity such as *findings*, *results*, *data*, in order to relieve themselves of responsibility for the claim made (e.g. “The analysis of the data shows that this assumption is invalid”).

The final point on this side of the scale would be the reporting of other authors' criticism. At the opposite pole, we would place those cases in which the authors assume explicitly entire responsibility for the criticism by displaying their authorial presence through the use of first person pronouns. Furthermore, on this side of the scale, it would seem appropriate to differentiate those cases in which the first person pronoun in the plural form is used in single-author texts, as in these cases the degree of authorial presence is lower thus indicating the writer's intention to reduce personal attribution.

Even the use of verbs could be susceptible to various degrees of commitment. We could differentiate those cases in which the authors use first person pronouns with verbs that express full commitment (*argue, hold*), from those in which first person pronouns co-occur with verbs of cognition (*believe, think*), which not only express certainty and conviction but also display appropriate respect for the reader's opinion, that is, the use of these verbs allows writers to introduce their criticism by balancing caution with commitment (Hyland, 2001).

Another type of limitation refers to the dimension of personalisation. A difference between implicit and explicit personalisation should be taken into account as there are cases in which the name of the criticised authors does not appear in the text although the members of a specific disciplinary community, who work on the issues involved can in all likelihood readily recognise the object of the criticism (see, for example, Span. Psych. 30).

As regards the directness dimension, instead of categorising the criticism as + / - *hedging*, it would be useful to establish a continuum which represents a rank of hedges or hedging strategies depending on the various degrees of minimization of Face Threatening Acts (Brown and Levinson 1987). Therefore, at one end of the continuum the hedging devices with a lower degree of protection could be placed, and at the other end the combination of two or more hedges in one proposition which increase the degree of protection of the proposition and of the writer's face.

In relation to the the nature of the critical speech act itself, a subsequent model might make a more delicate distinction between different types of criticism of previous work, such as those noting a misconception or inadequacy and those noting a gap, as there may well be variation in the features involved in managing the criticism.

As mentioned in Burgess and Fagan (2002), there is another point that needs further refinement, and which concerns the dimensions of the units of analysis. In our analysis, it was observed that each instance of AC has a nucleus where there is direct or indirect criticism (- / +hedging), but this is in fact often suggested much earlier in the text or there may be anaphoric references after the criticism itself. Therefore, looking at cohesion in terms of analysing the semantic relations that exist between the nucleus of the criticism and earlier or subsequent allusions to it in the text would be another issue that merits further exploration.

Although on most occasions it was possible to derive the target of

criticism anaphorically and cataphorically, there was an example (Sp. Psych. No 30) in which the referent was outside the text. Since it is difficult for non-specialists to derive the target of criticism when it is expressed exophorically we consider that, in addition to these discourse analytic studies, as suggested by Burgess and Fagan (2002), it would also be illuminating to study the reception of critical speech acts by expert informants in the disciplines.

## **7. 5. The politics of abstract writing**

Although the rhetorical differences obtained from the analysis of the data in this study indicate that the Spanish discourse community in the experimental social sciences still resists wholesale adoption of the discursive norms prevalent in the international English speaking community, the high degree of similarity indicates that the members of the Spanish community in this field are gradually absorbing these rhetorical conventions. The growing interest among Spanish academics in actively participating in international scientific communication, mainly through conferences or publication in international scientific journals, results in their frequent exposure to the influences of international disciplinary practices. As a consequence of this, they may consciously or unconsciously acquire these conventions, and this will, almost inevitably, be reflected in their national-level academic practices



as well. The use of the prevailing international discourse norms also seems to be associated with prestige. The number of researchers working in Spanish universities has seen an increase over the last few years, with the immediate consequence that they too now struggle to get their work published in national journals.

Salager-Meyer et al. (2003) arrived at a similar conclusion in their recent study of Spanish, English and French medical RAs, in terms of the use of academic criticism. In their diachronic analysis they found that, in the last few years, there has been a growing tendency among Spanish writers to adopt the rhetorical conventions which characterise the international English-speaking community as a response to recent modifications in Spanish cultural values as regards scientific writing. Similarly, Cmejrková (1996) attributes the recent changes in Czech academic discourse to the growing expansion of English academic norms. This seems to indicate that national academic styles, while embedded in cultural epistemological traditions, are influenced by external social and political circumstances that today are leading to an internationalization of scientific discourse. The future perspectives in academic discourse thus seem to point to a globalization of rhetorical practices in the experimental social sciences, and this will probably be the case of those disciplines which remain embedded in national cultures (i.e. the humanities).

The dominance of English as an international scientific language is not without its negative effects, among them the imposition of the rhetorical

conventions established by the English-speaking community, and the loss of academic genres in some minority languages. Mauranen (1993a) has noted, for example, that the research article in Finnish is disappearing. She argues for the maintenance of variety and diversity of academic styles, and therefore advocates a greater tolerance for different rhetorical styles in international publications. In this regard, Canagarajah (2002) criticises EAP scholars for adopting the normative attitude that the discourses of academic communities are not open to negotiation or criticism. As Canagarajah (2002) puts it,

This is a one-sided approach to community that considers how one should acculturate to the community one wishes to join, without considering the discourse implications of the other memberships one brings with oneself (Canagarajah, 2002: 32).

Salager-Meyer (1997) too opposes the linguistic imperialism of English and also argues for a greater tolerance for different styles and forms of languages, that is, a scientific multilingualism which accepts the rhetorical norms of languages other than English, and especially of those spoken in non-industrialised countries, languages which she calls 'lesser languages', borrowing the terminology by Swales (1990). Salager-Meyer (1997) proposes, for example, the creation of publications in two or three different languages (e.g. Spanish, Chinese, Portuguese), instead of those that are normally favoured (i.e. English, French, German, Russian or Japanese), and

the promotion of research activities on multilingual scientific literacy.

Clearly, this tolerance for different rhetorical styles should start at the instructional level, that is, EAP teachers should be sensitive to cultural differences and accept the various styles that multilingual students have in their own communities of practice. Hyland and Hamp-Lyons (2002) argue for taking a critical approach in EAP instruction, by raising students' awareness of the social processes in which academic discourses are situated, that is, exploring discourse practices such as competitiveness, alliances among particular groups and other issues that may condition, for example, the distribution of certain features in a text. In this regard, for Benesch (1999), strategies of negotiation and resistance may be just as important for the academic success of non-native English speaking students as understanding and fulfilling subject lecturers' expectations.

Another consequence of English becoming the language of international scientific communication is that, since the early days of language support for overseas students in British universities, there has been a continuous increase in the number of international students requiring additional language support in other countries where English is used as a medium of instruction (Jordan, 2002). This rapid expansion in the number of students all over the world has led to the need for a greater number of specialised teachers to cope with this growing demand. The fact that a good number of these teachers are non-native speakers of English points to an urgent demand for new developments in EAP materials and teacher training courses which can

fulfill the specific needs of these non-native English speaking academics who are required not only to teach in English, but also to conduct research and publish the results of that research in this language. Research on the language and literacy practices of non-native English-speaking academics working outside the English-speaking countries is emerging. For example, one attempt to provide such support is the programme designed by Sengupta et al. (1999) at the Hong Kong Polytechnic University. This aims to provide English language support to all academic staff members (and especially to non-native English academics), so that they have the skills required to both teach and publish in English. A research project on academic writing in English by non-native speakers of English is currently being conducted<sup>1</sup> in Hungary, Slovakia, and Spain. While conducting the study, the members of the research team offer participants some assistance with academic English writing. A multidisciplinary research project on the rhetorical strategies used by Spanish academics writing in English<sup>2</sup> is also being carried out at La Laguna University. Part of the project is the preparation of material for an online scientific writers' network, the main purpose of which is to offer help with the writing of academic papers in English.

---

<sup>1</sup> This project has been funded by the Open University (U.K.), and the principal investigators are Theresa M. Lillis and Mary J. Curry.

<sup>2</sup> This project (number 1802-640204) has been funded by *Consejería de Educación y Deportes del Gobierno de Canarias*.

The importance that the integration of technology (online communication) is increasingly acquiring in EAP cannot be exaggerated. Some of the areas in which Warschauer (2002) considers that computer use may have major benefits are computer-mediated discussion among students, with their instructors, and with the broader scholarly community (e.g. the creation of web pages, and the participation in academic e-mail discussion lists), interaction with distant correspondents, accessing material on the World Wide Web, and student-teacher communication via e-mail. Other possibilities that electronic communication offers are the production of materials informed by analysis of texts by means of concordance programmes (see, for example, Flowerdew, 1993; Thurstun & Candlin, 2002).

In conclusion, as a result of the growing demands for teaching in today's academic contexts, EAP has expanded from undergraduate university-level learning to the teaching of English in the academy at all proficiency levels, including the training of non-English-speaking-background academics who teach, carry out research and publish in this language. All these needs are finding a response in research into academic discourse. EAP work is increasingly taking into account the collaboration between language and subject teachers (see, for example, Dudley-Evans, 1995; 2001). The recent sociolinguistic approaches argue for the study of the rhetorical features of a genre in the social and cultural context in which it is produced, and encourage a close engagement of students with disciplinary communities in order to understand their expectations and social practices. The inclusion of a more

ethnographic approach to both research and pedagogy is revealing cross-cultural difficulties that are important elements for consideration in the classroom, and variations in the use of English across national boundaries is giving rise to calls for greater tolerance of different rhetorical styles in international publications.

## **7. 6. Pedagogical implications and applications**

The results obtained in the present study may have pedagogical implications not only for writers of English and Spanish as a second language, but also for teachers of LSP, since these may contribute to increasing our understanding of intercultural differences (and similarities) in academic writing. All the features investigated in this study include a number of options that can be taken up for different textual effects in the teaching of abstracts. Regular tendencies in their use in texts should increase our understanding of both English and Spanish writers' rhetorical preferences and their beliefs about rhetorically appropriate ways of writing abstracts in both languages. As Ventola (1997: 167) has noted, some areas where non-native writers of English need most textual training are in the awareness of cultural differences in "global and local structuring of texts and modality". Awareness of intercultural rhetorical preferences is then particularly useful for postgraduate students and novice writers if they want to make informed choices about

whether and when to conform to the expectations of the target audience. As Miller (1984/1994) and Bazerman (1988) have pointed out, genres respond to socio-cultural phenomena in particular contexts of use, therefore we cannot fully understand genres without understanding the culture in which they are inscribed. By describing rhetorical preferences in both languages, this study has also attempted to contribute to the appreciation of the existence of different rhetorical traditions, mainly the role of academic Spanish in a more and more globalised world, and this holds for most other national languages of non-English speaking countries.

The contextual situation is also taken into consideration in the present study, in as much as I attempt to explain the rhetorical features which characterise the RA abstract genre in both English and Spanish primarily on the basis of the socio-pragmatic context in which this genre is shaped, namely the interpersonal relations between writers and readers. I believe that instruction in academic genres, such as the RA abstract, is better approached by socialising into the disciplinary community that uses them. Once learners (especially non-native speakers of the target language) are aware of the rhetorical and linguistic conventions of an academic genre, the next step is actively participating in academic communication by using the conventions and receiving actual feedback from the other expert members of that community.

The teaching applications of this genre-based approach would then

consist in a prior discussion with students of the socio-cultural context in which a genre occurs. This discovery process of the social circumstances that surround a genre can help students understand the communicative purpose of a specific genre. A second complementary stage should be the explicit teaching of language structures and functions of texts. I would thus liken my position to that of Bhatia (2002) as summarised in the following quotation:

Ideally, one may need to position oneself somewhere in the middle, looking at the use of language as genre to achieve non-linguistic objectives, thus maintaining a balance between the study of linguistic form, on the one hand, and the study of context, in a broad sense of socio-cultural factors, to focus on why members of a specific disciplinary culture use the language the way they do and what makes this form possible (Bhatia, 2002: 22).

## **7. 7. Suggestions for future research**

This study has taken a text-oriented approach to the analysis of rhetorical features in the abstracts. In order to obtain a more accurate interpretation of the text variables analysed in this study, an ethnographic approach which comprises interviews with expert writers and experiments with readers responses in both languages could complement this research.



This approach would ultimately allow for the retrieval of direct information about how writers and readers interpret rhetorical functions of abstracts, and on how writers' perceptions of their relationship with readers affect rhetorical choices. An example of a study which looks at abstracts from the point of view of reception rather than examining differences between texts is Gibson (1993). He examines the issue of the quality of abstracts as they are perceived by reviewers. Similarly, Swales and Johns (1998: 25, as cited in García-Mayo, 2000: 113) argue that genre analysts should not stop at the level of text analysis, but that a variety of research methods should be used to achieve an understanding of the different motivations and ideologies that influence the production of specific texts.

In order to draw definite conclusions, it would also be appropriate to test the claims made in this study on similar or larger corpora, especially if we consider that there is a view (see, Golebiowski, 1998: 87) that in the social sciences and humanities there is less consensus relating to rhetorical strategies than there is in the physical sciences. It would be interesting, for instance, to investigate further whether the generalised tendency to omit at least one of the basic structural units, and in particular the Results section in the Spanish abstracts in the disciplines of phonetics and psychology, is equally favoured by the members of the Spanish scientific community in other disciplines or, on the other hand, as is the case of the international discourse community, whether it is viewed as a deficiency in the rhetorical structure of realizations of this genre.

Moreover, an analysis of English and Spanish abstracts in other disciplines of the hard sciences should also reveal whether in this case texts in the same disciplines feature common characteristics which override socio-cultural considerations. Diachronic studies can also increase our understanding of how genres are dynamic rhetorical forms that change over time.

This study has been concerned with the analysis and comparison of L1 texts in two specific disciplines of the experimental social sciences. Since a number of Contrastive Rhetoric studies have shown that the influence of the L1 represents an interference factor in L2 writing, a further analysis should imply the examination of the degree to which Spanish academics actually transmit their native textual patterns when writing abstracts in English in the same disciplines. The above-mentioned research project that is being conducted at present at La Laguna University addresses the difficulties that Spanish academics have when trying to publish in English.

Although much research in the ESP tradition has discussed how academic genres can be used as a pedagogical tool, Hyon (1996) notes that little work has actually investigated the impact of genre-based pedagogy in the classroom. In response to the critical responses to explicit genre instruction on the part of researchers in the New Rhetoric tradition, Hyon urges ESL researchers to conduct controlled teaching experiments on the effects of genre training on non-native English speaking students reading and writing abilities, as well as case studies tracking individual students' progress

through genre-based courses.

Freedman and Medway (1994) and Benesch (1993), among others, challenge researchers to consider the potential of some mainstream genres to marginalise certain groups. They argue for more studies that adopt a pragmatic and critical approach to analysing and teaching academic and professional texts that encourage resistance to those academic practices that limit the full social participation of ESL students.

In view of the importance of scientific communication, more cross-cultural research on different academic genres and disciplines needs to be done in order to provide insight into the differences (and similarities) in the way rhetorical strategies are used, and to determine the importance of socio-cultural factors in academic writing. These issues should be raised in Languages for Specific Purposes courses, as a way to make students and novice writers aware of different (and similar) preferences of discourse communities in specific genres and disciplines across languages. In this sense, this study can be considered as a first step of a wider project which aims at describing discourse pattern preferences across different disciplines and academic genres written in English and Spanish, since rhetorical differences may operate as a barrier to the exchange of scholarship between two discourse communities.

Ostler (2002) suggests that more research should be done by non-native speakers of English on English speakers learning other languages. She also recommends continued expansion into the variations of writing in issues

such as literacy, and pedagogy, as well as more collaboration with those doing research on the teaching of reading and foreign languages other than English. As Ostler (2002: 176) argues, students of languages other than English may have a special reason to take an interest in contrastive studies “to avoid getting trapped in an Anglophone cultural ethnocentrism where textual patterns other than the English ones appear to be anomalies”.

Despite the importance of undertaking research on national-level discourse norms, the growing power of English as the language of international scientific communication cannot be denied. The decision to write this thesis in English may be understood as indicating my appreciation of this fact. My efforts to describe the rhetorical preferences of my colleagues here in Spain working in experimental phonetics and psychology I believe show my willingness to offer some resistance to this hegemony.

## REFERENCES

- Ahmad, U.K. (1997). "Research article introductions in Malay: Rhetoric in an emerging research community", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp.273-303.
- Alcaraz-Varó, E. (2000). *El Inglés Profesional y Académico*. Madrid: Alianza Editorial.
- Allison, D. (1996). "Pragmatist discourse and English for academic purposes". *English for Specific Purposes* 15: 85-105.
- Anderson, K. and Maclean, J. (1997). "A genre analysis study of 80 medical abstracts". *Edinburgh Working Papers in Applied Linguistics* 8: 1-23.

- Bazerman, C. (1988). *Shaping Written Knowledge: The Genre and Activity of the Experimental Article in Science*. Madison, WI: University of Wisconsin Press.
- Becher, T. (1989). *Academic Tribes and Territories: Intellectual Enquiry and the Cultures of Disciplines*. Milton Keynes: SRHE and Open University Press.
- Belcher, D. (1995). "Writing critically across the curriculum", in D. Belcher & G. Braine (eds.) *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood, NJ: Ablex Publishing Corporation. pp. 135-155.
- Benesch, S. (1999). "Rights analysis: Studying power relations in an academic setting". *English for Specific Purposes* 18: 313-327.
- Benesch, S. (2001). *Critical English for Academic Purposes: Theory, Politics and Practice*. Mahwah, NJ: Erlbaum.
- Berkenkotter, C. & T. Huckin (1995). *Genre Knowledge in Disciplinary Communication: Cognition/Culture/Power*. Hillsdale, NJ: Lawrence Erlbaum.

- Bhatia, V.K. (1993). *Analysing Genre: Language Use in Professional Settings*. London: Longman, 1993.
- Bhatia, V. (1997). "Introduction: Genre analysis and world Englishes". *World Englishes* 16: 313-319.
- Bhatia, V. (1998). "Generic conflicts in Academic Discourse", in Fortanent, I., Posteguillo, S., Palmer, J.C. & Coll, J.F. (eds.): *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa. pp. 15-28.
- Bhatia, V. (2002). "A generic view of academic discourse", in Flowerdew, J. (ed.) *Academic Discourse*. Harlow: Longman. pp. 21-39.
- Biber, D. (1988). *Variation across Speech and Writing*. New York: Cambridge University Press.
- Bizzell, P. (1992). *Academic Discourse and Critical Consciousness*. Pittsburgh: University of Pittsburgh Press.
- Bloch, J. & L. Li (1995). "A comparison of the use of citations in Chinese and English academic discourse", in D. Belcher & G. Braine (eds.) *Academic Writing in a Second Language: Essays on Research and*

*Pedagogy*. Ablex Publishing Corporation. Norwood, NJ. pp. 135-155.

Bloor, M. (1998). "English for specific purposes: The preservation of the species. (Some notes on a recently evolved species and on the contribution of John Swales to its preservation and protection)". *English for Specific Purposes* 17: 47-66.

Braine, G. (2001). "Twenty years of needs analysis: Reflections on a personal journey", in Flowerdew, J. & M. Peacock (eds.) *Research Perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press. pp. 195-207.

Brett, P. (1994). "A genre analysis of the results section of sociology articles". *English for Specific Purposes* 13: 47-59.

Brown, P. & Levinson, S. (1987). *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.

Bunton, D. (2002) "Generic moves in Ph. D. thesis introductions", in Flowerdew, J. (ed.) *Academic Discourse* Harlow: Longman. pp. 57-75.

Burgess, S. (1997). *Discourse Variation across Cultures: a Genre Analytic*



*Study of Writing in Linguistics*. Unpublished Ph.D. thesis. University of Reading.

Burgess, S. (2002). "Packed houses and intimate gatherings: audience and rhetorical structure", in Flowerdew, J. (ed.) *Academic Discourse*. Harlow: Longman. pp. 196-215.

Burgess, S (2002b). An interview with John Swales. *Revista Canaria de Estudios Ingleses* 44: 201-214.

Burgess, S. & A. Fagan (2002). "(Kid) gloves on or off?: Academic conflict in research articles across the disciplines". *Revista Canaria de Estudios Ingleses* 44: 79-96.

Canagarajah, S. (2001). "Addressing issues of power and difference in ESL academic writing", in Flowerdew, J. & M. Peacock (eds.) *Research Perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press. pp. 117-131

Canagarajah, S. (2002). "Multilingual writers and the academic community: Towards a critical relationship". *Journal of English for Academic Purposes* 1: 29-44.

- Carrell, P.L., Devine, J. & D. E. Eskey (1989). *Interactive Approaches to Second Language Reading*. Cambridge University Press.
- Chafe, W. (1986). "Evidentiality in English conversation and academic writing", in Chafe, W. & J. Nichols (eds.) *Evidentiality: The Linguistic Coding of Epistemology*. Norwood, N. J.: Ablex. pp. 261-272.
- Cherry, R. D. (1998). "Ethos versus Persona: Self-representation in written discourse". *Written Communication* 15: 384-410.
- Clemen, G. (1997). "The concept of hedging: Origins, approaches and definitions", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 235-248.
- Clyne, M. (1984). *Language and Society in German-speaking Countries*. Cambridge: C.U.P.
- Clyne, M. (1987). "Cultural differences in the organization of academic texts". *Journal of Pragmatics*. 11: 211-247.
- Clyne, M. (1991). "The sociocultural dimension: the dilemma of the German-

speaking scholar”, in Schröder, H. (ed.): *Subject-oriented Texts*. Berlin: Walter de Gruyter, 49-68.

Cmejrková, S. (1996). “Academic writing in Czech and English”, in Ventola, E. and Mauranen, A. (eds.): *Academic Writing: Intercultural and Textual Issues*. Amsterdam: John Benjamins. pp. 137-153.

Cmejrková, S. & F. Danes (1997). “Academic writing and cultural identity: The case of Czech academic writing”, in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp.41-62.

Connor, U. (1987). “Argumentative patterns in student essays: Cross-cultural differences”, in Connor, U. & R. Kaplan (eds.). *Writing across Languages: Analysis of L2-Text Reading*. Reading, MA: Addison-Wesley, pp. 57-71.

Connor, U. (1996). *Contrastive Rhetoric: Cross-cultural Aspects of Second Language Writing*. Cambridge: Cambridge University Press.

Connor, U. & J. Lauer (1988). “Cross-cultural variation in persuasive student writing”, in Purves, A. (ed.). *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 138-159.

- Cremmins, E. T. (1982). *The Art of Abstracting*. Philadelphia: ISI Press.
- Crismore, A. & W. J. Vande Kopple (1997). "Hedges and readers: Effects on attitudes and learning", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 83-114.
- Crombie, W. (1991). "E.S.P.: Fact or Fiction?". *Revista Alicantina de Estudios Ingleses* 4: 25-36.
- Crompton, P. (1997). "Hedging in academic writing: Some theoretical aspects". *English for Specific Purposes* 16: 271-289.
- Crompton, P. (1998). "Identifying hedges: Definition of divination?". *English for Specific Purposes* 17: 303-313.
- Crookes, G. (1986). "Towards a validated analysis of scientific text structure". *Applied Linguistics* 7: 57-69.
- Day, R.A. (1989). *How to Write and Publish a Scientific Paper*. (3rd edition). Cambridge: Cambridge University Press.

- Degenhart, E. R. & S. Takala (1988). "Developing a rating method for stylistic preference: A cross-cultural pilot study", in Purves, A. (ed.) *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 79-106.
- Dudley-Evans, T. (1994). "Genre analysis: An approach to text analysis for ESP", in Coulthard, M. (ed.) *Advances in Written Text Analysis*. London: Routledge. pp. 219-228.
- Dudley-Evans, T. (1995). "Common-core and specific approaches to the teaching of academic writing", in Belcher, D. & G. Braine (eds.) *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood NJ: Ablex Publishing Corporation, pp. 293-312.
- Dudley-Evans, T. (2001). "Team-teaching in EAP: Changes and adaptations in the Birmingham approach", in Flowerdew, J. & M. Peacock (eds.) *Research Perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press. pp. 225-238.
- Dudley-Evans, T. & M. J. St John (1998). *Developments in English for Specific Purposes. A Multidisciplinary Approach*. Cambridge: Cambridge University Press.

- Duszak, A. (1994). "Academic discourse and intellectual styles". *Journal of Pragmatics* 21: 291-313.
- Duszak, A. (1997). "Cross-cultural academic communication: A discourse-community view", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp. 11-40.
- Eggington, W. (1987). "Written academic discourse in Korean: Implications for effective communication", in Connor, U. & R. Kaplan (eds.). *Writing across Languages: Analysis of L2-Text Reading*. Reading, MA: Addison-Wesley, pp. 153-168.
- Eggington, W. (1994). *An Introduction to Systemic Functional Linguistics*. London: Pinter Publishers Ltd.
- Farrell, L. (1997). "Doing well... doing badly: An analysis of the role of conflicting cultural values in judgements of relative 'academic achievement'", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp. 63-89.
- Flowerdew, J. (1993). "Concordancing as a tool in course design". *System* 21: 231-244.

Flowerdew, J. & M. Peacock (2001). "Issues in EAP: A preliminary perspective", in Flowerdew, J. & M. Peacock (eds.) *Research Perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press. pp. 8-24.

Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (1998). "Disciplinary variations in the writing of research articles in English", in Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (eds.): *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa, pp. 59-78.

Freedman, A. & P. Medway (1994). "Locating genre studies: Antecedents and prospects", in Freedman, A. & P. Medway (eds.) *Genre and the New Rhetoric*. London: Taylor and Francis. pp. 1-15.

Froom, P. & J. Froom (1993). "Deficiencies in structured medical abstracts". *Journal of Clinical Epidemiology* 46/7: 591-594.

García-Mayo, M. P. (2000). *English for Specific Purposes: Discourse Analysis and Course Design*. Universidad del País Vasco.

Giannoni, D. (2002). "Worlds of gratitude: A contrastive study of acknowledgement texts in English and Italian research articles". *Applied*

*Linguistics* 23: 1-31.

Gibson, T.R. (1993). *Towards a Discourse Theory of Abstracts and Abstracting*. Monograph in Systemic Linguistics, No. 5. Nottingham: The Department of English Studies, University of Nottingham.

Gläser, R. M. (1995) *Linguistic Features and Genre Profiles of Scientific English*. Peter Lang. LFS 9.

Gnutzmann, C. & H. Oldenburg (1991). "Contrastive text linguistics in LSP-research: Theoretical considerations and some preliminary findings", in Schröder, H. (ed.): *Subject-oriented Texts*. Berlin: Walter de Gruyter. pp. 103-137.

Golebiowski, Z. (1998). "Rhetorical approaches to scientific writing: An English-Polish contrastive study". *Text* 18: 67-102.

Gopnik, M. (1972). *Linguistic Structures in Scientific Texts*. The Hague: Mouton.

Gosden, H. (1993). "Discourse functions of subject in scientific research articles". *Applied Linguistics* 14: 56-75.



- Grabe, W. (1987). "Contrastive rhetoric and text-type research", in Connor, U. & R. Kaplan (eds.) *Writing across Languages: Analysis of L2-Text Reading*. Reading, MA: Addison-Wesley, pp. 115-137.
- Grabe, W. & R. B. Kaplan (1997). "On the writing of science and the science of writing: Hedging in science text and elsewhere", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 151-167.
- Graetz, N.(1985). "Teaching EFL students to extract structural information from abstracts" in Ullign, J.M. & Pugh, A.K. (eds.): *Reading for Professional Purposes: Methods and Materials in Teaching Languages*. Leuven: Acco. pp. 123-135.
- Groom, N. (2000). "Attribution and averral revisited: Three perspectives on manifest intertextuality in academic writing" in Thompson, P. (ed.): *Patterns and Perspectives: Insights into EAP Writing Practice*. Reading: Reading University Press. pp. 14-25.
- Halliday, M. A. K. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold.

- Henry, A. & R. L. Rosebury (2001). "A narrow-angled corpus analysis of moves and strategies of the genre: 'Letter of application'". *English for Specific Purposes* 20: 153-167.
- Hinds, D. (1987). "Reader- versus writer responsibility", in Connor, U. & R. Kaplan (eds.). *Writing across Languages: Analysis of L2-Text Reading*. Reading, MA: Addison-Wesley, pp. 141-152.
- Hinds, D. (1990). "Inductive, deductive, quasi-inductive: Expository writing in Japanese, Korean, Chinese, and Thai", in Connor, U. & M. Johns (eds.). *Coherence in Writi: Research and Pedagogical Perspectives*. Alexandria, Virginia: Teachers of English to Speakers of Other Languages, Inc., pp. 87-109.
- Holmes, R. (1997). "Genre analysis, and the social sciences: an investigation of the structure of research article discussion sections in three disciplines". *English for Specific Purposes* 16 : 321-337.
- Hopkins, A. & T. Dudley-Evans (1988). "A genre-based investigation of the discussion sections in articles and dissertations". *English for Specific Purposes* 7: 113-122.
- Hunston, S. (1993). "Professional conflict: Disagreement in academic

discourse”, in Baker, M., Francis, G. & E. Tognini-Bonelli (eds.), *Text and Technology. In Honor of John Sinclair*. Amsterdam: John Benjamins Publishing. pp. 115-133.

Hyland, K. (1994). “Hedging in academic textbooks and EAP”. *English for Specific Purposes* 13: 239-256.

Hyland, K. (1996). “Talking to the academy: Forms of hedging in science research articles”. *Written Communication* 13: 251-281.

Hyland, K. (1998). *Hedging in Scientific Research Articles*. Amsterdam: John Benjamins.

Hyland, K. (2000). *Disciplinary Discourse. Social Interactions in Academic Writing*. Harlow: Pearson Education.

Hyland, K. (2001). “Humble servants of the discipline? Self-mention in research articles”. *English for Specific Purposes* 20: 207-226.

Hyland, K. (2002). “Genre: Language, context, and literacy”. *Annual Review of Applied Linguistics* 22: 113-135.

Hyland, K. & Hamp-Lyons, L. (2002). “EAP: Issues and directions”. *Journal*

*of English for Academic Purposes* 1: 1-12.

Hyon, S. (1996). "Genre in three traditions: Implications for ESL". *TESOL Quarterly* 30: 693-720.

Hyon, S. (2001). "Long-term effects of genre-based instruction: A follow-up study on an EAP reading course". *English for Specific Purposes* 20: 417-438.

Indrasuta, C. (1988). "Narrative styles in the writing of Thai and American students", in Purves, A. (ed.) *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 206-226.

Ivanic, R. (1998). *Writing and Identity: The Discoursal Construction of Identity in Academic Writing*. Amsterdam: John Benjamins.

Jacoby, S., Leech, D. & C. Holten (1995). "A genre-based developmental writing course for undergraduate ESL science majors", in Belcher, D. & G. Braine (eds.) *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood NJ: Ablex Publishing Corporation, pp. 351-373.

James, C. (1980). *Contrastive Analysis*. Essex: Longman

Johns, A. M. (1995). "Teaching classroom and authentic genres: Initiating students into academic cultures and discourses", in Belcher, D. & G. Braine (eds.) *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood NJ: Ablex Publishing Corporation, pp. 277-292.

Johns, A. M. & J. M. Swales (2002). "Literacy and disciplinary practices: Opening and closing perspectives". *Journal of English for Academic Purposes* 1:13-28.

Jordan, R. (2002). "The growth of EAP in Britain". *Journal of English for Academic Purposes* 1: 69-78.

Kachru, Y. (1988). "Writers in Hindi and English", in Purves, A. (ed.) *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 109-137.

Kaplan, R. B. (1966). "Cultural thought patterns in intercultural communication". *Language Learning* 16: 1-20.

Kaplan, R. B. (1987). "Cultural thought patterns revisited", in Connor, U. &

R. Kaplan (eds.). *Writing across Languages: Analysis of L2-Text Reading*. Reading, MA: Addison-Wesley, pp. 9-21.

Kaplan, R. B. (1988). "Contrastive rhetoric and second language learning: Notes toward a theory of contrastive rhetoric", in Purves, A. (ed.). *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 275-304.

Kaplan, R. B. & Grabe, W. (1991). "The fiction in science writing", in Schröder, H. (ed.): *Subject-oriented Texts*. Berlin: Walter de Gruyter. pp. 103-137.

Kaplan, R.B., Cantor, S., Hagstrom, C., Kamhi-Stein, L., Shiotani, Y. & Zimmerman, C. (1994). 'On abstract writing'. *Text* 14/3: 401-426.

Kourilova, M. (1996). "Interactive function of language in peer reviews of medical papers written by NN users of English". *UNESCO-ALSED LSP Newsletter* 19: 4-21.

Kreutz, H. & A. Harres (1997). "Some observations on the distribution and function of hedging in German and English academic writing", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp.181-202.

- Kuo, C. (1999). "The use of personal pronouns: Role relationships in scientific journal articles". *English for Specific Purposes* 18: 121-138.
- Lakoff, G. (1972). "Hedges: a study in meaning criteria and the logic of fuzzy concepts". *Journal of Philosophical Logic* 2: 458-508.
- Lancaster, F. W. (1991). *Indexing and Abstracting in theory and Practice*. Illinois: University of Illinois.
- Leki, I. (1991). "Twenty-five years of contrastive rhetoric: Text-analysis and writing pedagogies". *TESOL Quarterly* 25: 123-143.
- Lewin, B. (1998). "Hedging: Form and function in scientific research texts", in Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (eds.): *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa, pp. 89-108.
- Love, A. (2002). "Introductory concepts and 'cutting edge' theories: Can the genre of the textbook accommodate both?", in Flowerdew, J. (ed.) *Academic Discourse*. Harlow: Longman. pp. 76-92.
- Lovejoy, K. (1991). "Cohesion and information strategies in academic writing: Analysis of passages in three disciplines". *Linguistics and*

*Education* 3: 315-343.

Luukka, M. R. & R. Markkanen (1997). "Impersonalization as a form of hedging", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 168-187.

Lyons, J. (1977). *Semantics* (Vol 1-2). Cambridge: Cambridge University Press.

Markkanen, R. & H. Schröder (1997). "Hedging: A challenge for pragmatics and discourse analysis", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 3-18.

Martin, J. (1985). *Factual Writing: Exploring and Challenging Social Reality*. Geelong, Vic.: Deakin University Press.

Martin, J. (1992). *Towards a Theory of Text for Contrastive Rhetoric. An Introduction to Issues of Text for Students and Practitioners of Contrastive Rhetoric*. New York: Peter Lang.

Mauranen, A. (1993a). "Contrastive ESP rhetoric: metatext in Finnish-



English economics texts”. *English for Specific Purposes* 12: 3-22.

Mauranen, A. (1993b). *Cultural Differences in Academic Rhetoric*. Frankfurt am Main: Peter Lang.

Mauranen, A. (1997). “Hedging in language revisers’ hands”, in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 115-133.

Melander, B. (1998) “Culture or genre? Issues in the interpretation of cross-cultural differences in scientific papers” in Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (eds.): *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa, pp. 211-226.

Melander, B., Swales, J. M. & K. Fredrickson (1997). “Journal abstracts from three academic fields in the United States and Sweden: National or disciplinary proclivities?”, in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp.251-272.

Meyer, P. G. (1997). “Hedging strategies in written academic discourse: Strengthening the argument by weakening the claim”, in Markkanen,

R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 21-41.

Miller, C. R. (1984). "Genre as a social action". *Quarterly Journal of Speech* 70: 151-167. (1994). Reprinted in Freedman, A. & P. Medway (eds.) *Genre and the New Rhetoric*. London: Taylor and Francis. pp. 67-78.

Mohan, B. & Lo, W. (1985). "Academic writing and Chinese students: Transfer and developmental factors". *TESOL Quarterly* 19: 515-534.

Moreiro-González, J. A. (1993). *Aplicación de las Ciencias del Texto al Resumen Documental*. Madrid: Universidad Carlos III de Madrid.

Moreno, A. (1997). "Genre constraints across languages: causal metatext in Spanish and English RAs". *English for Specific Purposes* 16: 161-179.

Moreno, A. (1998). "The explicit signalling of premise-conclusion sequences in research articles: A contrastive framework". *Text* 18: 545-585.

Motta-Roth, D. (1998). "Discourse analysis and academic book reviews: A study of text and disciplinary cultures", in Fortanet, I., Posteguillo, S.,

Palmer, J. C. & J. F. Coll (eds.): *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa. pp. 29-59.

Myers, G. (1989). "The pragmatic of politeness in scientific articles". *Applied Linguistics* 10:1-35.

Myers, G. (1990). *Writing Biology: Texts in the Social Construction of Scientific Knowledge*. Madison, WI: University of Wisconsin Press.

Myers, G. (1992). "'In this paper we report...': Speech acts and scientific facts". *Journal of Pragmatics* 17: 295-313.

Myers, G. (1994). "The narrative of science and the narrative of nature in molecular genetics", in Coulthard, M. (ed.) *Advances in Written Discourse Analysis*. London: Routledge. pp. 179-190.

Myers, G. (1996). "Strategic vagueness in academic writing", in Ventola, E. & A. Mauranen (eds.). *Academic Writing: Intercultural and Textual Issues*. Amsterdam: John Benjamins. pp. 3-18.

Namsaraev, V. (1997). "Hedging in Russian academic writing in sociological texts", in Markkanen, R. & H. Schröder (eds.). *Hedging and*

*Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin: Walter de Gruyter, pp. 64-81.

Nikula, T. (1997). "Interlanguage view on hedging", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin: Walter de Gruyter, pp. 188-207.

Norman, G. (1999). *Cómo Escribir un Artículo Científico en Inglés.* Madrid: Astra Zeneca.

Nwogu, K. (1991). "Structure of science popularisations: A genre-analysis approach to the schema of popularised medical texts". *English for Specific Purposes* 10: 111-123.

Nwogu, K. (1997). "The medical research paper: Structure and functions". *English for Specific Purposes* 16: 119-138.

Ostler, S. (2002). "Contrastive Rhetoric: An expanding paradigm", in Flowerdew, J. (ed.) *Academic Discourse.* Harlow: Longman. pp. 167-181.

Palmer, F.R. (1986). *Mood and Modality.* Cambridge: Cambridge University

Press.

Paltridge, B. (1993). "Writing up research: A systemic functional perspective". *System* 21: 175-192.

Paltridge, B. (1994). "Genre analysis and the identification of textual boundaries". *Applied Linguistics* 15: 288-299.

Paltridge, B. (1995). "Working with genre: A pragmatic perspective". *Journal of Pragmatics* 24: 393-406.

Paltridge, B. (1997a). *Genre, Frames and Writing in Research Settings*. Pragmatics and Beyond N S, No. 45. Amsterdam: John Benjamins.

Paltridge, B. (1997b). "Thesis and dissertation writing: Preparing ESL students for research". *English for Specific Purposes* 16: 61-70.

Paltridge, B. (2001). "Linguistic research and EAP pedagogy", in Flowerdew, J. & M. Peacock (eds.) *Research Perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press. pp. 55-70.

Paltridge, B. (2002). "Academic literacies and changing university

communities”. *Revista Canaria de Estudios Ingleses* 44: 15-28.

Patrick, P. (2002). “The speech community”, in Chambers, J., Trudgill, P. & N. Schilling-Estes (eds.) *Handbook of Language Variation and Change*. Oxford: Blackwell, pp. 573-597.

Peck-MacDonald, S. (1994). *Professional Academic Writing in the Humanities and Social Sciences*. Carbondale: Southern Illinois University Press.

Peck-MacDonald, S. (1998). “The dilemmas of narrative in anthropology”, in Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (eds.): *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa, pp. 193-210.

Pennycook, A. (1994). *The Cultural Politics of English as an International Language*. London: Longman.

Pinto-Molina, M. (1992). *El Resumen Documental. Principios y Métodos*. Madrid: Fundación Germán Sánchez Ruipérez.

Posteguillo, S. (1999). “The schematic structure of computer science research articles”. *English for Specific Purposes* 18: 139-160.

- Purves, A. (1988). Introduction, in Purves, A. (ed.). *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 9-21.
- Rosch, E. (1973). "Natural Categories". *Cognitive Psychology* 4: 328-350.
- Salager-Meyer, F. (1990). "Discoursal flaws in medical English abstracts: a genre analysis per research- and text-type". *Text* 10/4: 365-384.
- Salager-Meyer, F. (1991a). "Reading expository prose at the post-secondary level: the influence of textual variables on L2 reading comprehension (a genre-based approach)". *Reading in a Foreign Language* 8/1: 645-662.
- Salager-Meyer, F. (1991b). "A genre-based and text-type analysis of hedging in written medical English discourse (1980-1990)". *Interface* 6: 33-54.
- Salager-Meyer, F. (1994). "Hedges and textual communicative function in medical English written discourse". *English for Specific Purposes* 13: 149-170.
- Salager-Meyer, F. (1997). "Scientific multilingualism and 'lesser languages'".

*Interciencia* 22: 197-201.

Salager-Meyer, F. (1998a). "Language is not a physical object". *English for Specific Purposes* 17: 295-303.

Salager-Meyer, F. (1998b). "The rationale behind academic conflict: from outright criticism to contextual 'niche' creation". *UNESCO-ALSED LSP* 21: 4-23.

Salager-Meyer, F. (1999). "Contentiousness in written medical English discourse: A diachronic study (1810-1995)". *Text* 19: 371-398.

Salager-Meyer, F. (2000). "Procrustes' recipe: Hedging and positivism". *English for Specific Purposes* 19: 175-187.

Salager-Meyer, F. (2001). "The bittersweet rhetoric of controversiality in 19th- and 20th-century French and English medical literature". *Journal of Historical Pragmatics* 2: 141-173.

Salager-Meyer, F. & G. Defives (1998). "From the gentleman's courtesy to the scientist's caution: A diachronic study of hedges in academic writing (1810-1995)", in Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F. Coll (eds.): *Genre Studies in English for Academic Purposes*.



Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa. pp. 133-171.

Salager-Meyer, F., Alcaraz-Ariza, M. & Zambrano, N. (2003). "The scimitar, the dagger and the glove: Intercultural differences in the rhetoric of criticism in Spanish, French and English medical discourse (1930-1995)". *English for Specific Purposes* 22: 223-247.

Samraj, B. (2002a). "Disciplinary variation in abstracts: The case of Wildlife Behaviour and Conservation Biology", in Flowerdew, J. (ed.): *Academic Discourse*. Harlow: Longman. pp. 40-56.

Samraj, B. (2002b). "Introductions in research articles: Variations across disciplines". *English for Specific Purposes* 21: 1-17.

Santos, M. P. dos (1996). "The textual organization of research paper abstracts in applied linguistics". *Text* 16/4: 481-499.

Santos, M. P. dos (2002). "Genre analysis of business letters of negotiation". *English for Specific Purposes* 21: 167-199.

Saville-Troike, M. (1989). *The Ethnography of Communication*. (2nd edition). Oxford: Basil Blackwell.

- Schröder, H. (1991). "Linguistic and text-theoretical research on languages for special purposes", in Schröder, H. (ed.): *Subject-oriented Texts*. Berlin: Walter de Gruyter. pp. 1-49.
- Schröder, H. & D. Zimmer (1997). "Hedging research in pragmatics: A bibliographical research guide to hedging", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 249-271.
- Sengupta, S., Forey, G. & L. Hamp-Lyons (1999). "Supporting effective English communication within the context of teaching and research in a tertiary institute: Developing a genre model for consciousness raising". *English for Specific Purposes* 18: S7-S22.
- Shalom, C. "Established and evolving spoken research process genres: Plenary lecture and poster session discussions academic conferences". *English for Specific Purposes*, 12: 37-50.
- Sinclair, J. (ed.) (1987). *The Collins COBUILD English Language Dictionary*. London: Harper Collins.
- Skelton, J. (1997). "How to tell the truth in *The British Medical Journal*:"

Patterns of judgement in the 19th and 20th centuries”, in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, pp. 42-63.

Smith, L. (1983). “English as an international auxiliary language”, in Smith, L. (ed.). *Readings in English as an International Language*. Oxford: Pergamon Press, pp. 1-5.

Söter, A. (1988). “The second language learner and cultural transfer in narration”, in Purves, A. (ed.) *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 177-205.

Stubbs, M. (1986). “A matter of prolonged field work: notes toward a modal grammar of English”. *Applied Linguistics* 7: 1-25.

Swales, J.M. (1981). *Aspects of Article Introductions*. Birmingham, UK: The University of Aston, Language Studies Unit.

Swales, J.M. (1990). *Genre Analysis: English in Academic and Research Setting*. Cambridge: Cambridge University Press.

- Swales, J. M. (1996). "Occluded genres in the academy: The case of submission letter", in Ventola, E. & A. Mauranen (eds.). *Academic Writing: Intercultural and Textual Issues*. Amsterdam: John Benjamins. pp. 45-58.
- Swales, J. M. (2001). "EAP-related linguistic research: An intellectual history", in Flowerdew, J. & M. Peacock (eds.) *Research Perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press. pp.42-54.
- Tang, R. & S. John (1999). "The 'I' in identity: Exploring writer identity in student academic writing through the first person pronoun". *English for Specific Purposes* 18: 23-39.
- Taylor, G. and Chen, T. (1991). "Linguistic, cultural, and subcultural issues in contrastive discourse analysis: Anglo-American and Chinese scientific texts". *Applied Linguistics* 12/3: 319-336.
- Thompson, P. (2002). "Manifesting intertextuality in the Ph D thesis". *Revista Canaria de Estudios Ingleses* 44: 97-114.
- Thurstun, J. & Candlin, C. (2002). "Concordancing and the teaching of the vocabulary of academic English". *Revista Canaria de Estudios*

*Inglises* 44: 157-172.

Vähäpassi, A. (1988). "The problem of selection of writing tasks in cross-cultural study", in Purves, A. (ed.) *Writing across Languages and Cultures. Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage, pp. 51-78.

Valero-Garcés, C. (1996). "Contrastive ESP rhetoric: metatext in Spanish-English economics texts". *English for Specific Purposes* 15: 279-294.

van Dijk, T. (1977). *Text and Context*. London: Longman.

Varttala, T. (1999). "Remarks on the communicative functions of hedging in popular scientific and specialist research articles on medicine". *English for Specific Purposes* 18: 177-200.

Vassileva, I. (1997). "Hedging in English and Bulgarian academic writing", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp. 141-157.

Vassileva, I. (2001). "Commitment and detachment in English and Bulgarian academic writing". *English for Specific Purposes* 20: 83-102.

- Ventola, E. (1987). *The Structure of Social Interaction: A Systemic Approach to the Semiotics of Service Encounters*. London: Pinter.
- Ventola, E. & A. Mauranen (1991). "Non-native writing and native revising of scientific articles", in Ventola, E. (ed.): *Functional and Systemic Linguistics: Approaches and Uses*. Mouton de Gruyter. pp. 457-492.
- Ventola, E. & A. Mauranen (eds.) (1996). *Academic Writing: Intercultural and Textual Issues*. Amsterdam: John Benjamins.
- Ventola, E. (1997). "Modalization: Probability - an exploration into its role in academic writing", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin. pp.157-180.
- Wales, K. (ed.) (1989). *A Dictionary of Stylistics*. New York: Longman.
- Warschauer, M. (2002). "Networking into academic discourse". *Journal of English for Academic Purposes* 1: 45-58.
- Weissberg R. and Buker, S. (1990). *Writing Up Research. Experimental Research Report Writing for Students of English*. New Jersey: Prentice Hall, Inc.

- Weissberg, R. (1993). "The graduate seminar: Another research-process genre". *English for Specific Purposes* 12: 23-35.
- Widdowson, H.G. (1979). "The description in scientific language". In Widdowson, H.G. (ed.) *Explorations in Applied Linguistics*. Oxford: Oxford University Press. pp. 51-61.
- Wierzbicka, A. (1985). "A semantic metalanguage for crosscultural comparison of speech acts and speech genres". *Language and Society* 14: 491-514.
- Williams, I.A. (1999). "Results section of medical research articles: Analysis of rhetorical categories for pedagogical purposes". *English for Specific Purposes* 18/4: 347-366.
- Wilss, W. (1997). "Hedging in expert-language reviews", in Markkanen, R. & H. Schröder (eds.). *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic text*. Berlin: Walter de Gruyter, pp. 134-147.
- Yunick, S. (1997). "Genres, registers and sociolinguistics". *World Englishes* 16: 321-336.







# English Phonetics Texts

## Index

1. Petersen, N. (1986) "Perceptual compensation for segmentally conditioned fundamental frequency perturbation". *Phonetica* 43: 124-139.
2. Silverman, K. (1986) "F0 segmental cues depend on intonation: The case of the rise after voiced stops". *Phonetica* 23: 218-236.
3. Lahiri, A., Schriefers, H. & Kuijpers, C. (1987) "Contextual neutralization of vowel length: Evidence from Dutch". *Phonetica* 44: 91-102.
4. Demenko, G., Jassem, W. & Krzysko, M. (1987) "Classification of basic fundamental frequency patterns using discriminant functions". *Phonetica* 44: 246-257.
5. Bailey, P. (1988) "Influences of contextual and local temporal information on perception of a stop consonant after [s]". *Phonetica* 45: 67-99.
6. Jong, K. (1990) "An articulatory study of consonant-induced vowel duration changes in English". *Phonetica* 47: 1-17.
7. Kingston, J. (1991) "Integrating articulations in the perception of vowel height". *Phonetica* 48: 149-179.
8. Han, M. (1992) "The timing control of geminate and single stop consonants in Japanese: A challenge for nonnative speakers".

*Phonetica* 49: 102-127.

9. Peng, S. (1993) "Cross-language influence on the production of Mandarin /f/ and /x/ and Taiwanese /h/ by native speakers of Taiwanese Amoy". *Phonetica* 50: 245-260.
10. Koopmans, F. (1994) "What's in a schwa? Durational and spectral analysis of natural continuous speech and diphones in Dutch". *Phonetica* 51: 68-79.
11. Engstrand, O. (1995) "Phonetic interpretation of the word accent contrast in Swedish". *Phonetica* 52: 171-179.
12. Smith, B. (1995) "Variability of lip and jaw movements in the speech of children and adults". *Phonetica* 52: 307-316.
13. Bradlow, A. (1996) "A perceptual comparison of the /i/-/e/ and /u/-/o/ contrasts in English and in Spanish: Universal and language-specific aspects". *Phonetica* 53: 55-85.
14. Haley, K. & Ohde, R. (1996) "Stimulus uncertainty and speaker normalization processes in the perception of nasal consonants". *Phonetica* 53: 185-199.
15. Lotto, A., Holt, L. & Kluender, K. (1997) "Effect of voice quality on perceived height of English vowels". *Phonetica* 54: 76-93.
16. Whalen, D. & Kinsella-Shaw, J. (1997) "Exploring the relationship of inspiration duration to utterance duration". *Phonetica* 54: 138-152.
17. Guignard, S. (1998) "The role of perception in the sound change of velar palatalization". *Phonetica* 55: 18-52.

18. Erickson, D. (1998) “ Effects of contrastive emphasis on jaw opening”.  
*Phonetica* 55: 147-169.
19. Ejiri, K. (1998) “Relationship between rhythmic behavior and canonical babbling in infant vocal development”. *Phonetica* 55: 226-237.
20. Gandour, J., Tumtavitikul, A. & Sathamnuwong, N. (1999) “Effects of speaking rate of Thai tones”. *Phonetica* 56: 123-134.
21. Abramson, A. & Lisker, L. (1985) “Voice-timing perception in Spanish word-initial stops”. *Journal of Phonetics* 13:79-93.
22. Sheldon, D. (1985) “ A short experimental investigation of the phonological view of the writer-rider contrast in U.S. English”.  
*Journal of Phonetics* 13: 187-198.
23. Butcher, A. (1986) “Brightness, darkness and the dimensionality of vowel perception”. *Journal of Phonetics* 14: 26-39.
24. Gallagher, T. (1986) “The relationship between lexical boundaries and speech production behavior in children”. *Journal of Phonetics* 14: 205-227.
25. O’Kane, D. (1987) “The effect of diminution of tactile sensitivity of labial muscular activity under controlled jaw separation conditions during intervocalic /p/ production”. *Journal of Phonetics* 15: 63-87.
26. Umeda, N., Harris, M. & Forrest, K. (1988) “The placement of auditory boundaries in fluent speech”. *Journal of Phonetics* 16: 46-71.
27. Murry, T. & Brown, W. (1988) “Peak intraoral air pressures in whispered stop consonants”. *Journal of Phonetics* 16: 231-257.

28. Rakerd, B., Sennett, W. & Fowler, C. (1989) "Domain-final lengthening and foot-level shortening in spoken English". *Journal of Phonetics* 17: 28-52.
29. Smith, B. & McLean-Muse, A. (1989) "Kinematic characteristics of postvocalic labial stop consonants produced by children and adults". *Journal of Phonetics* 17: 174-193.
30. Butcher, A. & Ahmad, K. (1991) "Some acoustic and aerodynamic characteristics of pharyngeal consonants in Iraqi Arabic". *Journal of Phonetics* 19: 86-107.
31. Sundberg, J., Johansson, C., Wilbrand, H. & Ytterbergh, C. (1991) "From sagittal distance to area. A study of transverse, vocal tract cross-sectional area". *Journal of Phonetics* 19: 215-236.
32. Fox, R. & Trudeau, D. (1992) "A multidimensional scaling of esophageal vowels". *Journal of Phonetics* 20: 126-141.
33. Oller, K., Eilers, R. Burns, R. & Urbano, R. (1992) "Perception of the stop/glide contrast in infancy". *Journal of Phonetics* 20: 214-230.
34. Caspers, J. (1993) "Effects of time pressure on the phonetic realization of the Dutch accent-lending pitch rise and fall". *Journal of Phonetics* 21: 32-59.
35. Löfqvist, A. & Gracco, V. (1994) "Tongue body kinematics in velar stop production: influences of consonant voicing and vowel context". *Journal of Phonetics* 22: 76-94.
36. Ohala, J. & Feder, D. (1994) "Listeners' normalization of vowel quality

is influenced by restored consonantal context”. *Journal of Phonetics* 22: 215-234.

37. Williams, C. & Buder, E. (1995) “Cross-language differences in phonological acquisition: Swedish and American /t/”. *Journal of Phonetics* 23: 76-91.
38. Utman, J. & Blumstein, S. (1997) “The influence of language on the acoustic properties of phonetic features: A study of the feature [strident] in Ewe and English”. *Journal of Phonetics* 25: 28-47.
39. Livonen, A. (1997) “Explaining the dispersion of the single-vowel occurrences in and F1/F2 space”. *Journal of Phonetics* 25: 187-206.
40. Xu, Y. (1998) “Consistency of tone-syllable alignment across different syllable structures and speaking rates”. *Journal of Phonetics* 26: 54-65.

## Text 1

Word count: 149

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>The paper deals</i> with the role of two types of segmentally conditioned fundamental frequency (F0) perturbation in speech perception, i.e. the differences in F0 between high and low vowels and the effect of prevocalic obstruent voicing on F0.
<b>I (M3-S3)</b>	The literature relevant to this issue <i>is reviewed</i> , and the results of a supplementary experiment on F0 as a cue to vowel identity <i>are reported</i> .
<b>R</b>	On this basis three major points <i>are made</i> : (1) Although the pitch of vowels is influenced psychoacoustically by their spectral shape, this effect is too small to be of any significant importance in speech perception. (2) The two types of F0 perturbation are not treated differently in the speech perception process, and (3) irrespective of type, the segmentally conditioned F0 variation <i>can</i> function as a cue both to segment identity and to the identity of prosodic categories, depending on the actual demands upon the speech perception system.

## Text 2

Word count: 202

Sentence count: 9

Paragraph count: 1

<b>I (M2-S1C)</b>	<p>Two different models of the influence of the stop voicing on F0 <i>are identified</i>. The more widely accepted of the two, called the rise-fall dichotomy, claims that F0 falls after voiceless stops but rises after voiced stops, and that the direction of post-release F0 is contextually invariant. The alternative model, referred to as the no-rise view, arose from <i>recent</i> production studies. It claims that the onset frequency of post-release F0 is raised after all stops, though only <i>relatively little</i> if they are phonologically voiced. <i>More importantly</i>, it sees F0 contours as a combination of segmental perturbations added onto a smooth underlying intonation contour. Consequently the direction of post-release F0 depends not only on segmental phonetic features but also on the prosodic structure.</p>
-------------------	--



<p><b>I (M3-S1B)</b> +</p> <p><b>M</b></p>	<p>In three perceptual experiments utilising computer-synthesised intervocalic bilabial stops, opposing predictions of the two models <i>are tested</i> by embedding falling, level, and rising perturbations in different intonational environments.</p>
<p><b>R</b></p>	<p>In each experiment the predictions of the no-rise view <i>are supported</i> and <b>those of the rise-fall dichotomy are falsified</b>.</p>
<p><b>C</b></p>	<p>The conclusion <i>drawn</i> is that investigations of segmental phonetics <i>can</i> give rise to <b>misleading results</b> unless the accompanying prosodic structure is also taken into account.</p>

### Text 3

Word count: 131

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	Based on recent experimental studies of word-final devoicing in languages like German and Catalan which show production differences between the neutralized and nonneutralized consonants, <i>it has been claimed</i> that phonological neutralization is ‘incomplete’.
<b>I (M2-S1B)</b>	<i>It seems</i> , however, that <b>this claim is quite premature</b> given that <i>most</i> studies have considered only the neutralizing phenomenon of word-final devoicing.
<b>I (M3-S1B)</b>	In this paper, <u>we</u> examine a qualitatively different neutralizing phenomenon - the neutralization of vowel length in open syllables.
<b>M</b>	<u>We</u> compared the duration of Dutch long vowels which are derived by an open-syllable lengthening rule to those that are underlyingly long.
<b>R</b>	<i>Our study shows</i> that there is no difference in the duration between these vowels and that,

C	at least, in this instance, <b>contextual neutralization does lead to identical surface realizations</b> of distinct phonological segments.
---	---

#### Text 4

Word count: 104

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>An attempt was made</i> to see whether realizations of eight different pitch patterns can be classified automatically by subjecting fundamental frequency curves to statistical treatment using two kinds of discriminant functions.
<b>M</b>	The materials consisted of 150 imitations of each of the eight prototypes (eight intonations of a short Polish phrase).
<b>R</b>	<i>Approximately</i> 80% of the time the statistical procedures assigned the individual tokens to the appropriate classes. <i>Most</i> of the misassignments were due to wrong imitations. The discriminant functions also <i>indicated</i> similarities and dissimilarities among the pitch patterns.
<b>C</b>	<i>It is suggested</i> the perceptually and linguistically, <i>some</i> differences between pitch patterns <i>may</i> not be <i>quite</i> categorical.

## Text 5

Word count: 111

Sentence count: 4

Paragraph count: 1

<b>I (M1-S2)</b>	<i>Much</i> of the perceptual information for a stop consonant in an [s]-stop cluster inheres in temporal properties of the acoustic signal local to the period of low energy corresponding to stop closure. However, stop percepts in this context are also influenced by the rate of speech in a precursor phrase to which the cluster is appended.
<b>I (M3-S1A)</b>	<i>The two experiments</i> in this paper <i>attempt</i> to explore the dissociability of these local and longer-term perceptual influences, and to investigate the interactions between them.
<b>R</b>	<i>The results</i> of the experiments <i>reveal</i> a complex pattern of interactions,
<b>C</b>	which <i>suggests</i> that a simple distinction between segmental and suprasegmental temporal information for phonetic contrasts is unrealistic.

## Text 6

Word count: 161

Sentence count: 4

Paragraph count: 1

<b>I (M1-S2)</b>	The effects of voicing, manner, and number of consonants on the duration of previous vowels in English <i>can be created</i> in three different ways: by planned expansion of contraction of the entire vowel, by changing the relative timing of consonant and vowel gestures, or by modifying the duration of the closing movement for the consonants.
<b>I (M3-S1B)</b> + <b>M</b>	An X-ray microbeam data base of 2 speakers of American English reciting monosyllabic words, which differed in their final consonants and in their position in the accentual structure of the utterance, <i>was studied</i> to evaluate three accounts.
<b>R</b>	In this data base, vowel duration differences due to the voicing of the following consonants were amplified by the presence of accent. Also, <i>many</i> of the duration differences associated with the following consonants are localized in the later portion of the opening movement,
<b>C</b>	<i>suggesting</i> that subjects <i>often</i> create vowel duration changes by initiating the consonant closing gesture at an earlier or later time relative to the opening gesture.

## Text 7

Word count: 172

Sentence count: 4

Paragraph count: 1

<b>I (M1-S2)</b>	In vowels contrasting for height, <i>a large number</i> of articulations covary with tongue height, which <i>is supposed</i> to be the principal bearer of the contrast.
<b>I (M2-S1A)</b>	However, attempts to link these covarying articulations to tongue movement physiologically <b>have been largely unsuccessful</b> , and the particular pattern of covariation <i>appears</i> to make more sense as a concerted effort to influence the perceived height of F1.
<b>I (M3-S1B)</b> + <b>M</b>	<i>The experiments reported</i> here used the Garner interferences paradigm, modified to assess the perceptual primacy of stimulus dimensions,
<b>R</b>	to show that the acoustic effects of two of these covarying articulations, velum height (nasalization) and rate of vocal fold vibration (pitch) are integrated perceptually with the acoustic effects of varying tongue height.

<b>C</b>	<i>This perceptual integration suggests</i> that the different articulations are not independently perceived, <b>contrary to the predictions of direct realist theories of speech perception</b> , that articulatory events covary so as to enhance each other's perceptual effects, and that the surface phonological or initial phonetic representation of vowel <i>might</i> be <i>quite</i> richly specified ( <b>contrary to claims of phonetic underspecifications</b> ).
----------	---



## Text 8

Word count: 120

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	The stop closure durations and voice onset time of geminate and single voiceless stops in Japanese <i>were examined</i> with two groups of subjects: native Japanese and fluent Americans.
<b>R</b>	The two groups <i>were found</i> to have different manners of timing control of these segments. <i>The results indicated</i> that the 10 native speakers distinguished between the geminate and single stops by controlling the closure durations in the mean ratio of 2.8:1.0, while the 4 fluent Americans pronounced the same tokens in diverse and random manners.
<b>C</b>	The timing control of geminate and single stop consonants is a challenge for nonnative speakers who <i>may</i> either miss the contrast, or <i>may</i> pronounce geminate and single stops with the ratio of <i>approximately</i> 2.0:1.0.

**Text 9**

Word count: 151

Sentence count: 7

Paragraph count: 1

<p><b>I (M3-S1B)</b> + <b>M</b></p>	<p><i>The present study examines</i> the patterns of interference between a first (here, Amoy) and second language (here, Mandarin) by comparing the production of a Mandarin phone [f] with another Mandarin phone [x] by three groups of native Amoy subjects differentiated by proficiency in Mandarin. Their Mandarin production <i>was</i> also <i>compared</i> to that of Mandarin monolinguals. The spectrum of each consonant <i>was analyzed</i> to show the frequency range and energy of the fricative.</p>
---	--

<b>R</b>	<p><i>In general</i>, native Amoy speakers interpreted Mandarin /f/ and /x/ in terms of their first phones [hw] and [h], but showed different patterns of interference for different proficiency levels. The least proficient simply substituted the Amoy phones for the Mandarin. More proficient speakers could approximate the Mandarin monolingual phonetic norm for the phone [f] more accurately than for the similar phone [x]. The most proficient showed <i>little</i> Amoy-to Mandarin interference on even the similar phone [x]. On the other hand, the most proficient showed <i>some</i> interference from Mandarin /x/ on their Amoy production.</p>
----------	---

## Text 10

Word count: 162

Sentence count: 4

Paragraph count: 1

<b>I (M2-S1B)</b>	Although the schwa sound is <i>by far</i> the most frequent vowel in Dutch, it has up to now been phonetically <b>the most neglected</b> .
<b>M</b> + <b>I (M3-S1B)</b>	<u>We</u> used an existing database of vowel sounds from focus words in spontaneous speech and in lexically the same text, read aloud by one male speaker, to analyse durational and spectral characteristics of schwas, and <u>we</u> compared the results with data on schwa diphones used in Dutch text-to-speech synthesis.
<b>R</b>	<i>It turned out</i> that, <b>contrary to what is usually thought</b> , lexical schwa sounds in natural continuous speech are <i>considerably</i> shorter than other short vowels, that there is no strong consonantal influence on schwa duration, that schwa sounds display a spectral spread larger than any other vowel, and that surrounding consonants <i>seem</i> to play a role with respect to the midpoint formant distribution of the schwa within the whole vowel system.

C	In no way <i>can</i> the schwa <i>be considered</i> as the ‘bench-mark’ of a speaker’s vowel system.
---	--

## Text 11

Word count: 130

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This paper reports</i> an experimental phonetic study of the acute and grave word accents in Central Standard Swedish.
<b>I (M2-S1C)</b>	The hypothesis was that the fall in fundamental frequency observed on the primary stressed syllables in grave words is a direct consequence of the word accent, while the corresponding fall in F0 in acute words reflects sentence level intonation.
<b>M</b>	Three male subjects read speech material designed to illustrate how these falls in F0 are influenced by intonational contexts.
<b>R</b>	The main finding was that the grave fall was substantial and consistent, whereas an acute fall appeared only in certain contexts.
<b>C</b>	<i>The results indicated</i> that an F0 fall is a positive acoustic-perceptual requirement for the grave accent, while the acute accent constitutes the unmarked member of the contrast, i.e., acute equals non-grave.

## Text 12

Word count: 164

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>One purpose of the present study was to examine displacement variability of lower lip and jaw movements to determine whether sounds that are generally learned earlier and should, therefore, have been practised more (e.g., stops and nasals) would be less variable than sounds that tend to develop later (e.g., fricatives). It was also of interest to determine whether individual articulators such as the lower lip and the jaw show any differences in displacement variability, given that lower lip gestures may need to be more precise than jaw movements.</i>
<b>M</b>	Repetitions of several labial-initial, CVC stimuli embedded in short phrases produced by three groups of children (5-, 8-, and 11-years-olds) and a group of adults were examined to determine the variability of articulatory gestures.
<b>C</b>	No evidence was found to suggest that fricatives were more variable than stops or nasals for any of the groups.
<b>R</b>	For the children but not for the adults, lower lip gestures tended to be more variable than jaw movements.

### Text 13

Word count: 212

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	Two experiments <i>were run</i> to investigate language-specific and universal acoustic-perceptual characteristics of the /i/-/e/ and /u/-/o/ contrasts in two languages that differ <i>widely</i> in the sizes of their vowel inventories, namely, English and Spanish.
<b>I (M3-S1B)<sub>2</sub></b> + <b>M</b>	In order to investigate the relationship between production and perception of these two vowel pairs, <i>the first experiment compared</i> the acoustic and perceptual characteristics of the /i/-/e/ and /u/-/o/ contrasts within each of the two languages. In order to investigate the responses of listeners to non-native stimuli, <i>the second experiment presented</i> native listeners of English and Spanish with synthetic /i/-/e/ and /u/-/o/ stimuli that were modeled after natural vowels as spoken by speakers of the other language.



<p><b>R</b></p>	<p><i>The results indicated</i> a close production-perception link, as well as a degree of flexibility of the perceptual vowel space in response to stimuli that are structured around non-native vowel category locations.</p>
<p><b>C</b></p>	<p><i>These results suggest</i> that listeners perceive vowel stimuli with reference to a specific phonemic vowel system, and, if necessary, will adjust their perceptual vowel system to match the stimuli. Additionally, <i>a comparison</i> of the absolute locations of the /i/-/e/ and /u/-/o/ perceptual boundaries across the two languages <i>indicated</i> the presence of universally preferred, inventory-independent boundary locations.</p>

## Text 14

Word count: 213

Sentence count: 8

Paragraph count: 1

<b>I (M1-S2)</b>	<i>Previous</i> research has noted a reduction in perceptual identification performance when the speaker varies from stimulus to stimulus and has interpreted this finding as an effect of a normalization process that compensates for variability in the physical content of the speech signal.
<b>I (M3-S1A)</b>	<i>The purpose of the present investigation</i> was to examine whether the physical variability introduced by this experimental design can result in general stimulus uncertainty effects that extend beyond the realm of traditional delineations of normalization processes.

<p><b>M</b></p>	<p>The stimuli were short segments taken from nasal consonant+vowel syllables produced by 1 male adult, 1 female adult, and 2 children. Segments of 25 and 50 ms duration <i>were edited</i> from the nasal murmur and the onset of the vowel. The stimuli <i>were ordered</i> according to four variability conditions and <i>presented</i> to listeners for place or articulation identification.</p>
<p><b>R</b></p>	<p><i>The results showed</i> that identification was significantly reduced when variability affected either speaker identity or segment type. <i>Further analyses revealed</i> that segment variability impaired perception of all segment types <i>approximately</i> equally, but that the 50-ms vowel segments were selectively spared in the speaker variability condition.</p>
<p><b>C</b></p>	<p><i>These findings indicate</i> that <b>general uncertainty effects should be considered in speech perception experiments</b>, and that dynamic properties of speech are <i>particularly important</i> in the perceptual compensation for speaker variability.</p>

## Text 15

Word count: 183

Sentence count: 9

Paragraph count: 1

<b>I (M1-S2)</b>	Across a variety of languages, phonation type and vocal-tract shape systematically covary in vowel production. Breathy phonation <i>tends</i> to accompany vowels produced with a raised tongue body and/or advanced tongue root.
<b>I (M3-S1B)<sub>1</sub></b>	A <i>potential</i> explanation for this regularity, based on a hypothesized interaction between the acoustic effects of vocal-tract shape and phonation type, <i>is evaluated</i> .
<b>I (M2-S1C)</b>	<i>It is suggested</i> that increased spectral tilt and first-harmonic amplitude resulting from breathy phonation interact with the lower-frequency first formant resulting from a raised tongue body to produce a perceptually higher vowel.
<b>I (M3-S1B)<sub>2</sub></b> + <b>M</b>	To test this hypothesis, breathy and modal versions of vowel series modelled after male and female productions of English vowel pairs <i>were synthesized</i> .

<p><b>R</b></p>	<p><i>Results indicate</i> that for <i>most</i> cases, breathy voice quality led to more tokens being identified as the higher vowel. In addition, the effect of voice quality is greater for vowels modelled after female productions.</p>
<p><b>C</b></p>	<p>These results are consistent with a hypothesized perceptual explanation for the covariation of phonation type and tongue-root advancement in West African languages. The findings <i>may also be relevant</i> to gender differences in phonation type.</p>

## Text 16

Word count: 194

Sentence count: 7

Paragraph count: 1

<b>I (M1-S2)</b>	<i>Previous work has indicated</i> that there <i>may</i> be a positive relationship between the duration and extent of inspiration and the length of an upcoming utterance.
<b>I (M2-S1B)</b>	However, <b>none of that work has <i>uniquely</i> implied a role of planning.</b>
<b>I (M3-S1B)</b> + <b>M</b>	<u>We attempted</u> to avoid <i>some</i> of the alternative explanations by forcing subjects to utter single sentences ranging in length from 5 to 82 syllables (mean of 27), after inspiring fully and then expiring down to a set level before uttering the sentence.

<p><b>R</b></p>	<p>For all three subjects, there was a significant positive relationship between utterance length and inspiration duration, regardless of whether inspiration was measured physiologically or acoustically. The 2 subjects with the higher correlations in the articulatory measures also expended air more quickly during the shorter sentences than longer ones, while the other subject had no correlation with exhalation rate. Complexity of the sentence, calculated as the number of clauses in the sentence, did not affect inspiration duration.</p>
<p><b>C</b></p>	<p>The individual differences need further investigation, but there is a positive correlation between the duration of the sentence to be said and the inspiration before it when the speaker is required to read sentences while using only one breath.</p>

**Text 17**

Word count: 99

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	Voiceless velar stops <i>may</i> become palatoalveolar affricates before front vowels. This sound change is not only one of the most common types of palatalization, but is a very common sound change in the world's languages.
<b>I (M2-S1B)</b>	Nevertheless, <b><u>we do not have an adequate understanding</u></b> of how this sound change takes place.
<b>I (M3-S1B)</b>	<i>Three experiments reported</i> here <i>test</i> the hypothesis that velar palatalization is the result of listeners' online perceptual reanalysis of fast rate speech.
<b>R</b>	<i>It is shown</i> that velars before front vowels are both acoustically and perceptually similar to palatoalveolars.
<b>C</b>	This supports the proposal that velar palatalization is perceptually conditioned.



## Text 18

Word count: 134

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<i>This paper examines</i> the effect of contrastive emphasis on the amount of vertical jaw displacement as measured from X-ray microbeam data, for 3 American English speakers. Jaw opening in short utterances with one word emphasized (in initial, middle, and final positions) <i>was compared</i> with that of similar utterances with no words emphasized.
<b>C</b>	<i>The results suggest</i> that emphasis involves not only a significant increase in jaw opening on the word emphasized but also <i>possibly</i> a reduction of jaw opening on the word following emphasis. Emphasis in addition <i>may</i> affect the amount of jaw opening on the utterance as a whole, in terms of a decrement in jaw opening on all the remaining words in the utterance following the emphasized word. The relationship between jaw opening and hierarchical levels of prosodic structure <i>is tentatively discussed</i> .

## Text 19

Word count: 169

Sentence count: 10

Paragraph count: 1

<b>I (M1-S2)</b>	The onset of canonical babbling (CB) is a landmark event in infants' vocal development for spoken language. <i>Previous research has suggested</i> that the onset of CB coincides with the peak period of rhythmic activities.
<b>I (M3-S1B)</b> + <b>M</b>	To examine this phenomenon in detail, 28 Japanese infants (14 girls, 14 boys) <i>were observed</i> longitudinally from the age of 5 to 9 months. In the experimental sessions, an audible or an inaudible rattle <i>was placed</i> into a hand of each tested infant. Then the number of times that the infant shook the rattle <i>was counted</i> . In the observational sessions, infants' spontaneous rhythmic activities under natural conditions <i>were observed</i> .
<b>R</b>	<i>The result shows</i> that rhythmic activities reached their peak around the onset of CB. When the infants began to babble, they shook whichever rattle was in their hand, regardless of its audibility. After this period, they shook the audible rattles more frequently than the inaudible ones.

<b>C</b>	<i>These findings suggest</i> that, around the onset of CB, infants learn to control their motor activities based on auditory feedback.
----------	---

## Text 20

Word count: 233

Sentence count: 9

Paragraph count: 1

<b>I (M3-S1B)</b>	Effects of speaking rate on the production of lexical tones (mid, low, falling, high, rising) <i>were investigated</i> in Thai.
<b>M</b>	Stimuli consisted of bisyllabic adverbials (first syllable unstressed, last syllable stressed) elicited in a fixed syntactic and prosodic environment. For unstressed and stressed syllables separately, F0-and time-normalized, fitted, third-order polynomial curves <i>were used</i> to compare height and slope characteristics of the tonal contours at each of 11 measurement locations between fast and slow speaking rates.
<b>R1</b>	<i>Results indicated</i> that speaking rate effects on F0 contours of unstressed syllables are more extensive, both in terms of height and slope, than those of stressed syllables. In particular, the height of F0 contours in unstressed syllables was <i>generally</i> higher in the fast speaking rate when compared to the slow.

C1	<i>Analysis</i> of the preceding carrier syllable <i>revealed</i> that changes in height of F0 contours of unstressed syllables <i>may</i> be due primarily to perseverative effects of tonal coarticulation rather than to stress itself.
R2	The slope of F0 contours in unstressed syllables varied depending on range of F0 movement. Thai tones with substantial F0 movement (falling, high, rising) exhibited overall flatter slopes at the fast speaking rate; those tones with lesser F0 movement (mild, low) displayed steeper slopes.
C2	Despite extensive changes in height and shape, the five-way tonal contrast <i>appears</i> to be maintained in unstressed syllables at a fast speaking rate albeit in a different tonal space.

## Text 21

Word count: 190

Sentence count: 7

Paragraph count: 1

<b>I (M1-S2)</b>	<p><u>We</u> have shown in earlier work that speakers of Spanish differentiate voiced /bdg/ from voiceless /ptk/ in word-initial position by means of voice onset time (VOT), the temporal relation between the onset of glottal pulsing and acoustic features of supraglottal articulation. More recently, <u>we</u> demonstrated the perceptual efficacy of VOT for the three categories of Thai and the two of English that lie along the timing dimensions. The two Spanish categories differ from those of English in that Spanish voiced stops are produced with VOT values that lead the consonant release, while voiceless stops show VOT upon release or immediately thereafter.</p>
<b>I (M3-S1B)</b> + <b>M</b>	<p>In the present study, native speakers of Latin American Spanish identified stops synthesized with VOT varying in small steps.</p>

<b>R</b>	Their responses showed a <i>fairly</i> good fit between production and perception, differing from English in the expected direction. <i>Some</i> listeners also discriminated the variants in a psychoacoustic test format.
<b>C</b>	<i>The latter results</i> , along with the earlier ones for English and Thai, <i>suggest</i> that discriminability is <i>largely</i> determined by language experience, although <i>some</i> subjects reveal <i>considerable</i> sensitivity to changes in the acoustic signal at some remove from the phonemic boundary.

**Text 22**

Word count: 47

Sentence count: 2

Paragraph count: 1

<b>M</b>	A forced choice identification task <i>was conducted</i> using single and double items sentence frames for the American version of “writer” and “rider”.
<b>C</b>	<i>Consideration</i> of first vowel durations and identification profiles <b><i>failed to support phonetic and phonological views</i></b> that such a durational cue is primary to pair discrimination.



### Text 23

Word count: 109

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	The frequent use of only two labels in impressionistic descriptions of vowel quality, from antiquity up until the present day, <i>suggests</i> the <i>possibility</i> of perceptually ordering vowel sounds along a single dimension corresponding to a single auditory attribute.
<b>I (M2-S1C)</b>	Results of experiments in phoneme grouping and in machine perception also <i>seem not unfavourable</i> to such hypothesis.
<b>I (M3-S1B)</b> + <b>M</b>	Perception tests <i>were carried out</i> to investigate the reality of the dark/bright continuum for naïve listeners and the relationship of this auditory dimension to acoustic factors.
<b>C</b>	<i>Preliminary results indicate</i> a correspondence between brightness and the degree of separation of first and second formant. Further tests with extended stimulus sets are necessary to confirm this.

## Text 24

Word count: 76

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1B)</b>	The relationship between lexical boundary position and the incidence of correct /s/ production in the spontaneous speech of children inconsistently producing that phoneme <i>was investigated</i> .
<b>R</b>	A significant greater incidence of incorrect production <i>was found</i> for preboundary /s/, when other phonemic contextual influences were controlled, than for /s/ in other lexical positions.
<b>C</b>	<i>The results indicate</i> that lexical position is related to articulatory inconsistencies in child speech and <b>raise questions regarding present models of speech production and perception.</b>

**Text 25**

Word count: 84

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b>	The effect of diminution of labial tactile sensitivity on intervocalic production <i>was examined</i> .
<b>M</b>	Six sets of tokens, each containing 234 utterances of /apa/ <i>were recorded</i> under a range of 13 fixed jaw separation conditions, two of these sets being recorded after subject anaesthetization (using a powerful local anaesthetic).
<b>R</b>	Significant differences <i>were found</i> between normal and diminished tactile sensitivity productions.
<b>I (M3-S1B)</b>	The effect of certain jaw separation conditions on the variation of muscular activity in both normal and deprived states of sensory feedback <i>was tentatively examined</i> .

## Text 26

Word count: 136

Sentence count: 7

Paragraph count: 2

<b>I (M1-S2)</b>	Boundaries in running speech carry information to the listener about the syntactic and semantic structure of the message.
<b>I (M2-S1A)</b>	However, not all boundary signals are equally obvious acoustically, and every speaker has his own way of manipulating acoustic parameters to form boundary signals. Listeners <i>often</i> respond to a very obscure acoustic feature as a boundary signal.
<b>I (M3-S1A)</b>	<u>Our</u> eventual goal is to define the boundary acoustically and to establish its relevance to the higher-level structure of the message. But first <u>we</u> have to identify the acoustic characteristics that trigger the listener's response.
<b>I (M3-S1B)</b>	This paper is a preliminary report on the placement of auditory boundaries. <u>We</u> report on the reliability among listeners, on the agreement among speakers as judged by the listeners, and on the placement of boundaries with respect to the syntactic structure of the sentence.

**Text 27**

Word count: 84

Sentence count: 4

Paragraph count: 1

<b>I (M1-S2)</b>	Hypotheses based primarily on glottal resistance or increased air volume have been advanced by <i>various</i> investigators as an explanation for the differences in intraoral air pressure associated with the production of voiced/voiceless consonant pairs.
<b>I (M3-S1A)</b> + <b>M</b>	For this study, whispered speech <i>was employed</i> to examine the nature of the air pressure differences in stop consonants.
<b>R</b>	<i>The results indicate</i> that intraoral air pressure differences <i>normally</i> found for vocal voiced/voiceless cognates were not found for the whisper speech samples.
<b>C</b>	<i>These results support</i> a glottal resistance hypothesis.

**Text 28**

Word count: 168

Sentence count: 9

Paragraph count: 1

<b>I (M1-S2)</b>	The literature describes two kinds of durational influence on the syllables of an utterance. They are a lengthening of syllables before many syntactic boundaries (domain-final lengthening) and a shortening of stressed syllables followed by unstressed syllables (foot-level shortening).
<b>I (M3-S1B)</b>	In the present study <u>we</u> examined the relationship between these two timing phenomena. In particular, <u>we</u> examined the <i>possibility</i> that syntactic boundaries at which lengthening occurs delimit the domains over which foot-level shortening is realized.
<b>M</b>	To test this hypothesis, <u>we</u> varied the syllabic structure of metrical feet spanning word boundaries that either coincided with a noun-phrase (NP)/verb phrase (VP) boundary or did not.

<b>R</b>	Comparison of stressed syllable durations in these conditions failed to confirm the hypothesis. Instead, unstressed syllables shortened stressed syllables by the same durations across an NP/VP boundary as within a phrase.
<b>C</b>	<u>Our findings suggest</u> that the two effects are independent. The finding that foot-level shortening spans finally-lengthened syntactic boundaries <i>is discussed</i> in relation to theories of the shortening effect.

## Text 29

Word count: 124

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	<i>It has been commonly observed</i> in the speech of English-speaking adults and children that vowels are longer when they precede voiced versus voiceless final obstruents.
<b>I (M2-S1B)</b>	However, <i>less is known about articulatory characteristics of such productions</i> , particularly in the case of children.
<b>I (M3-S1B)<sub>1</sub></b> + <b>M</b>	<i>The present study investigated</i> kinematic properties of children's and adults' production of labial stop consonants in postvocalic position. Acoustic measures of the same segments <i>were also obtained</i> .
<b>R</b>	<i>It was observed</i> that for all three groups of children and the adults, closing gestures into [p] occurred more rapidly than did closing gestures into [b]; however, there was a <i>tendency</i> for the difference between [p] and [b] closing velocities to increase with age.
<b>I (M3-S1B)<sub>2</sub></b>	<i>Possible relationships</i> between acoustic and kinematic factors <i>were also explored</i> .



### Text 30

Word count: 121

Sentence count: 6

Paragraph count: 1

<b>I (M2-S1B)</b>	The articulation of pharyngeal consonants in Arabic <i>is still not fully understood.</i>
<b>I (M3-S1B)</b> + <b>M</b>	The production of these sounds by a small group of speakers of an Iraqi dialect <i>was analysed</i> by means of acoustic and aerodynamic techniques.
<b>R</b>	<i>It was found</i> that both /h/ and /ʕ/ <i>could be said</i> to be produced by a constriction in the pharynx (whereby the <i>possibility</i> of epiglottal involvement <i>cannot be excluded</i> ), but that laryngeal tension <i>may</i> also play an important role. Vowels preceded or followed by pharyngeals have lowered and centralized allophones.
<b>C</b>	High rates of airflow for /h/ <i>may be facilitated</i> by lowering the velum. Both sounds <i>could be regarded</i> as approximants, formed in a region of the vocal tract where true fricatives are very difficult to produce.

### Text 31

Word count: 125

Sentence count: 6

Paragraph count: 1

<b>I (M2-S1B)</b>	In speech articulation studies, <b>data on the pharynx are scarce.</b>
<b>I (M1-S1)</b>	Still, the pharynx is <i>an important part</i> of the vocal tract.
<b>I (M3-S1B)<sub>1</sub></b>	<i>The present paper reports on an attempt to use computed tomography for investigating the pharynx.</i>
<b>M</b>	Axial computed tomograms <i>were taken</i> at four levels in the pharynx of a male and a female subject sustaining the vowels [u:, i:, Y:]. From the tomograms the lateral width and the cross-sectional area <i>were measured</i> and their relations to the sagittal distance from the back pharynx wall to the midline of the tongue <i>examined and compared</i> with previously published data.
<b>I (M3-S1B)<sub>2</sub></b>	In addition, <i>some</i> previous results derived from plaster casts <i>are presented</i> showing the corresponding distance-to-area relationship in the mouth region of <i>some</i> male and female subjects.

**Text 32**

Word count: 150

Sentence count: 7

Paragraph count: 1

<p><b>I (M3-S1B)</b> + <b>M</b></p>	<p>A multidimensional scaling experiment <i>was conducted</i> to determine the perceptual structure of 11 American English vowels produced by a competent esophageal speaker. Estimates of perceptual distance among these vowels <i>were obtained</i> using a 9-point similarity/dissimilarity scale and <i>were analyzed</i> using an individual differences scaling algorithm (INDSCAL). A three-dimensional perceptual space <i>was produced</i>. The three perceptual dimensions corresponded to tongue advancement, vowel height, and rhotacization. These three dimensions <i>were</i> then <i>correlated</i> with selected bark scale transformed acoustic vowel measurements.</p>
<p><b>R</b></p>	<p>The perceptual dimensions 1-3 corresponded most closely to F3-F2, F1-F0, and F3, respectively. <i>Little</i> difference <i>was found</i> between the perceptual structure of esophageal vowels and laryngeal vowels,</p>

<b>C</b>	although <i>it is suggested</i> that the correlation between <i>some</i> of the acoustic measures and the perceptual dimensions <i>may</i> change as a function of individual speaker differences due to postsurgical capabilities (anatomical and physiological) and/or method of voice restoration.
----------	---

### Text 33

Word count: 234

Sentence count: 9

Paragraph count: 1

<b>I (M1-S2)</b>	<i>Much</i> of the published research in infant speech perception has emphasized how well infants have done with a number of speech contrasts, and have noted similarities in pattern of discrimination of adults and infants. <i>Often it has been suggested</i> that infants begin life with the ability to perceive any speech contrast, and that the process of acquiring a language involves inhibition of the ability to perceive contrasts not present in the target language. Indeed <i>some</i> studies have shown infants able to discriminate contrasts on which adults fail if the contrasts are not drawn from the native language of the adults.
<b>I (M2-S1A)</b>	Other studies, however, <i>have suggested</i> that infants <i>may</i> not always be so perceptually capable.
<b>I (M3-S1B)</b>	<i>The present work focusses</i> on the stop-glide contrast.

C	<p><b>The results are inconsistent with the prevalent view and with previously reported studies</b> on the perception of the stop-glide contrast by infants. <i>The results indicate</i> that in a vigilance paradigm adapted for both infant and adult testing, infants perform poorly on the contrasts when compared with adults. Furthermore the pattern of relative perception <i>observed</i> in the adults on stimuli with long or short vowels is quite <i>unlike</i> that of the infants. <i>It is concluded</i> that <i>much</i> work remains in order to evaluate the relative performance of infants and adults in speech perception, since <i>it appears</i> that changes in experimental paradigm or particular stimulus parameters <i>may</i> affect outcomes in fundamental ways.</p>
---	--

### Text 34

Word count: 150

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>The goal of this experiment is to find the most important phonetic features of Dutch accent-lending pitch movements, in terms of shape, pitch level and alignment with the segmental structure.</i>
<b>M</b>	Time pressure <i>is used</i> as a heuristic method to isolate important phonetic aspects of pitch movements, assuming that under time pressure the speaker will preserve those aspects.
<b>I (M3-S1B)</b>	In a production experiment, accent-lending rises and falls were realized under various types of time pressure.
<b>R1</b>	The pitch rise is time-compressed under all pressure types,
<b>C1</b>	which <i>would</i> mean that the shape of the rise is <i>relatively</i> unimportant.
<b>C2</b>	The segmental alignment of the rise proved to be more important:
<b>R2</b>	the onset of the rise is synchronized with the syllable onset.
<b>R3</b>	For the fall no fixed synchronization point <i>was found</i> , but its shape was <i>relatively</i> invariant,

C3	<i>indicating</i> that the shape rather than exact timing is the more important feature of the fall.
----	--



### Text 35

Word count: 196

Sentence count: 9

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This study examines</i> vertical and horizontal tongue body movements in VCV sequences, where the consonant is a voiced or voiceless velar stop.
<b>M</b>	The movement data <i>were recorded</i> using a magnetic transduction technique in two subjects.
<b>R<sub>1</sub></b>	Consistent with studies of lip and jaw kinematics, the duration of the tongue body raising movement towards closure for the consonant was longer for the voiced stop. In contrast to lip and jaw movements, peak velocity and amplitude of the raising movements were consistently higher for the voiced stop. The larger displacement of the closing movement for the voiced stop was due to a lower starting position of the movement during the preceding vowel. Examination of the tongue body lowering movement for the vowel preceding the velar stop showed it to be longer when the following stop was voiced. Also this lowering movement had a higher peak velocity and amplitude in the voiced environment.

<b>C</b>	<i>These results thus suggest</i> that both the lowering and raising movements in the VC sequence are affected by the voicing status of the consonant.
<b>R2</b>	In addition, the second vowel in the VCV sequence showed <i>reliable</i> influences on tongue body movements for the first vowel and the consonant.

**Text 36**

Word count: 145

Sentence count: 6

Paragraph count: 1

<b>I (M2-S1C)</b>	When listeners' identifications of speech sounds are influenced by adjacent sounds, is it only the quantitative phonetic characteristics of these neighboring sounds that matter, or <i>could</i> their qualitative linguistic identity play a role?
<b>I (M3-S1B)</b> + <b>M</b>	<u>We</u> tested this by inducing subjects to restore a noise-obliterated medial consonant in VCC utterances by first presenting them with <i>several</i> prior utterances where this medial consonant could be heard clearly and was consistently the same, either a /b/ and a /d/. Included as V were synthetic steady-state vowels from the /i-u/ continuum.
<b>R</b>	More /u/'s <i>were identified</i> out of this continuum in the environment of physically present /d/'s than /b/'s. Restored /d/'s had the same effect,
<b>C</b>	thus <i>indicating</i> that the influence of context need not operate only via physical phonetic features. <i>These results suggest</i> that strict phonetic invariance of phonological units <i>may</i> not be necessary.

### Text 37

Word count: 188

Sentence count: 7

Paragraph count: 1

I (M1-S2)	<u>Our</u> understanding of phonological acquisition has benefited <i>immensely</i> from cross-linguistic investigations which allow researchers to separate biological and learned factors.
I (M2-S1B)	To date, <b><i>most cross-linguistic studies have focused either on differences in phonetic inventories or on differences in frequency of occurrence of particular phonetic and phonological properties in the adult language.</i></b>
I (M3-S1B)	<b><i>This paper describes a third type of study:</i></b> comparisons of segments that occur in two (or more) languages but differ in their phonetic properties.
M	<u>We</u> present perceptual and acoustic analyses of adult and child productions of word-initial alveolar /t/ in American English and dental /t/ in Swedish.

<p><b>R</b></p>	<p><i>Results showed</i> that listeners' perception of place of articulation was <i>strongly</i> associated with language (alveolar: American English, dental: Swedish) for both adult and child tokens, and was effective in assigning individual speakers to language groups. Three acoustic measures, voice onset time, burst intensity and burst spectral diffuseness correlated with language for both child and adult tokens; the latter two measures correlated with perception as well.</p>
<p><b>C</b></p>	<p><i>The findings suggest</i> that American and Swedish children at 30 months of age have acquired some language-specific phonetic aspects of /t/ phonemes.</p>

### Text 38

Word count: 225

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<i>This study explored</i> the extent to which the acoustic manifestation of a phonetic feature is influenced by the linguistic role that the feature plays in the sound inventory of the particular language. To this end, <u>we</u> investigated the acoustic property associated with the feature [strident] in the production of bilabial and labiodental fricatives in Ewe, and labiodental and alveolar fricatives in English, and explored whether the acoustic manifestation of the feature [strident] varied in the instantiation of [f] in Ewe and English.
<b>I (M1-S2)</b>	In Ewe, the feature [strident] plays a contrastive role distinguishing labiodental from bilabial fricatives, whereas in English the feature [strident] does not play a contrastive role.

<p><b>R</b></p>	<p><i>Results showed</i> that a measure of turbulence noise was able to distinguish bilabial and labiodental fricatives in Ewe and labiodental and alveolar fricatives in English. Moreover, the range of values associated with defining the amplitude characteristics for [f] was similar in the two languages. Nevertheless, differences emerged in the acoustic fine structure of the noise amplitude for [f v] in the two languages, with the frequency distribution for the labiodental fricative in Ewe being skewed towards the high amplitude range relative to English.</p>
<p><b>C</b></p>	<p><i>These results suggest</i> that while the fundamental manifestation of the acoustic property is the same across languages, its instantiation <i>may</i> be influenced by the functional role that its associated feature plays in the language.</p>

### Text 39

Word count: 249

Sentence count: 12

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	The variability of the Finnish vowel occurrences on the F1/F2 chart <i>was studied</i> .
<b>I (M3-S1B)<sub>2</sub></b> + <b>M</b>	Repetitions ( $n = 8 \times 10 + 10 = 160$ ) of two syllable types, /hVh/ and /tVt/, produced by a male speaker <i>were analysed</i> . The F1/F2 variability in both contexts <i>was estimated</i> .
<b>R<sub>1</sub></b>	In the /hVh/ context, the phoneme targets were considerably more peripheral than in the /tVt/ contexts. In the /tVt/ context, the phoneme placements were nearer the upper left corner of the F1/F2 space in /u/, /o/ and /a/.
<b>C<sub>1</sub></b>	That is understandable on the basis of the alveolar tongue blade position: the tongue holds its position nearer the alveolar area during its movement from [t] to [V] and back to [t] compared to the [hVh] articulation. In the latter articulation, the tongue is free to move and the vowel reaches its ideal position.



<p><b>I (M3-S1B)<sub>3</sub></b> + <b>M</b></p>	<p>In order to explain the variability of the repetitions in one context, the notion of auditory critical band window (CBW) <i>was used</i>.</p>
<p><b>I (M1-S2)</b></p>	<p>A CBW covers an area on the psychoacoustical F1/F2 plot that comprises 1 bark on the F1 and F2 scales. Its modification CBW-F1 implies that a critical band is presented as a circle comprising the diameter of 1 bark according to the F1 scale.</p>
<p><b>R<sub>2</sub></b></p>	<p><i>Practically</i> all single F1/F2 points occur within the CBW-F1 circle. In <i>most</i> cases, the variability is smaller than one CBW-F1 circle,</p>
<p><b>C<sub>2</sub></b></p>	<p>but <u>we</u> can consider that a greater amount of repetitions <i>would</i> yield a greater dispersion. The auditorily motivated CBW-F1 circle <i>might appear</i> to be a good prediction for the articulation precision.</p>

**Text 40**

Word count: 217

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	<i>Previous studies have reported that F0 contours of lexical tones in Mandarin are closely aligned with the syllables that carry them and that this alignment is late-adjusted so that the most appropriate F0 contour of a tone occurs mainly in the later portion of the host syllable.</i>
<b>I (M2-S1B)</b>	<b>These studies, however, examined tone alignment only in syllables with a simple CV structure.</b>
<b>I (M3-S1B)</b> + <b>M</b>	<i>The present study compared tone-syllable alignment patterns in syllables with a final nasal (the only final consonant allowed in Mandarin) to those without a final nasal at three speaking rates -normal, fast and slow.</i>

<p><b>R</b></p>	<p><i>Experiment 1 found</i> that regardless of internal syllable structure, the F0 contours for all of the four Mandarin tones maintain a consistent alignment to the syllables that carry them. <i>Experiment 2 found</i> that whether or not the syllable has a final nasal and regardless of speaking rate, the F0 peak associated with the R (rising) tone always occurs near the center of the syllable and the slope of the rise does not vary systematically with either syllable structure or speaking rate.</p>
<p><b>C</b></p>	<p><i>These findings are interpreted as indicating</i> that the syllable is the proper domain for tone implementation and that tone contours such as rising and falling are <i>probably</i> implemented as integral dynamic targets rather than as sequences of static targets.</p>

# English Psychology Texts

## Index

1. Flin, R. (1985) "Development of face recognition: An encoding switch?". *British Journal of Psychology* 76: 123-134.
2. Richardson, J. (1985) "Converging operations and reported mediators in the investigation of mental imagery". *British Journal of Psychology* 76: 205-214.
3. Broadbent, D., FitzGerald, P. & Broadbent, M. (1986) "Implicit and explicit knowledge in the control of complex systems". *British Journal of Psychology* 77: 33-50.
4. Bryant, P. & Somerville, S. (1986) "The spatial demands of graphs". *British Journal of Psychology* 77: 187-197.
5. Tuohy, A. (1987) "Affective asymmetry in social perception". *British Journal of Psychology* 78: 41-52.
6. Steptoe, A. & Fidler, H. (1987) "Stage fright in orchestral musicians: A study of cognitive and behavioural strategies in performance anxiety". *British Journal of Psychology* 78: 241-249.
7. Elliott, C. & Tyler, S. (1987) "Learning disabilities and intelligence test results: A principal components analysis of the British Ability Scales".

*British Journal of Psychology* 78: 325-333.

8. Mayes, J. & Jahoda, G. (1988) "Patterns of visual-spatial performance and spatial ability: Dissociation of ethnic and sex differences". *British Journal of Psychology* 79: 105-119.
9. Pring, L. (1988) "The 'reverse-generation' effect: A comparison of memory performance between blind and sighted children". *British Journal of Psychology* 79: 387-400.
10. Roberts, T. & Bruce, V. (1989) "Repetition priming of face recognition in a serial choice reaction-time task". *British Journal of Psychology* 80: 201-211.
11. Clark, N. & Stephenson, G. (1990) "Social remembering: Quantitative aspects of individual and collaborative remembering by police officers and students". *British Journal of Psychology* 81: 73-94.
12. Baxter, J., Manstead, A., Stradling, S. & Parker, D. (1990) "Social facilitation and driver behaviour". *British Journal of Psychology* 81: 351-360.
13. George, C. (1991) "Facilitation in the Wason selection task with a consequent referring to an unsatisfactory outcome". *British Journal of Psychology* 82: 463-472.
14. Zika, S. & Chamberlain, K. (1992) "On the relation between meaning in life and psychological well-being". *British Journal of Psychology* 83: 133-145.
15. Russell, P. & Gray, C. (1994) "Ranking or rating? Some data and their

- implications for the measurement of evaluative response". *British Journal of Psychology* 85: 79-92.
16. Johnston, R. (1994) "Some Mickey Mouse experiments: An examination of the classification and naming of individual things". *British Journal of Psychology* 85: 525-540.
  17. Thornton, S. (1996) "Developmental change in the use of relevant recall as a basis for judgements". *British Journal of Psychology* 87: 417-429.
  18. White, P. (1997) "Naïve ecology: Causal judgements about a simple ecosystem". *British Journal of Psychology* 88: 219-233.
  19. Deregowski, J. & Shepherd, J. (1997) "Sex differences on Bartel's task: An investigation into perception of real and depicted distances". *British Journal of Psychology* 88: 637-651.
  20. Stevenage, S. (1998) "Which twin are you? A demonstration of induced categorical perception of identical twin faces". *British Journal of Psychology* 89: 39-57.
  21. Daiute, C. & Kruidenier, J. (1985) "A self-questioning strategy to increase young writers' revising processes". *Applied Psycholinguistics* 6: 307-318.
  22. Werker, J. (1986) "The effect of multilingualism of phonetic perceptual flexibility". *Applied Psycholinguistics* 7: 141-156.
  23. Tomasello, M. & Herron, C. (1988) "Down the Garden Path: Inducing and correcting overgeneralization errors in the foreign language

- classroom". *Applied Psycholinguistics* 9: 237-246.
24. Johnson, C. & Clark, J. (1988) "Children's picture naming difficulty and errors: Effects of age of acquisition, uncertainty, and name generality". *Applied Psycholinguistics* 9: 351-365.
25. Watson, R. (1989) "Literate discourse and cognitive organization: Some relations between parents' talk and 3-year-olds' thought". *Applied Psycholinguistics* 10: 221-236.
26. Smith, S., Macaruso, P., Shankweiler, D. & Crain, S. (1989) "Syntactic comprehension in young poor readers". *Applied Psycholinguistics* 10: 429-454.
27. Alverson, H. & Rosenberg, S. (1990) "Discourse analysis of schizophrenic speech: A critique and proposal". *Applied Psycholinguistics* 11: 167-184.
28. Bruck, M. & Waters, G. (1990) "Effects of reading skill on component spelling skills". *Applied Psycholinguistics* 11: 425-437.
29. Holobow, N., Genesee, F. & Lambert, W. (1991) "The effectiveness of a foreign language immersion program for children from different ethnic and social class backgrounds: Report 2". *Applied Psycholinguistics* 12: 179-198.
30. Gathercole, S., Willis, C., Emslie, H. & Baddeley, A. (1991) "The influences of number of syllables and wordlikeness on children's repetition of nonwords". *Applied Psycholinguistics* 12: 349-367.
31. Schick, B. & Moeller, M. (1992) "What is learnable in manually coded

- English sign systems?”. *Applied Psycholinguistics* 13: 313-340.
32. Carlisle, J. & Nomanbhoy, D. (1993) “Phonological and morphological awareness in first graders”. *Applied Psycholinguistics* 14: 177-195.
33. Macaruso, P., Shankweiler, D. Byrne, B. & Crain, S. (1993) “Poor readers are not easy to fool: comprehension of adjectives with exceptional control properties”. *Applied Psycholinguistics* 14: 285-298.
34. Villiers, J., Bibeau, L., Ramos, E. & Gatty, J. (1993) “Gestural communication in oral deaf mother-child pairs: Language with a helping hand?”. *Applied Psycholinguistics* 14: 319- 347.
35. Hernández, A., Bates, E. & Avila, L. (1994) “On-line sentence interpretation in Spanish-English bilinguals: What does it mean to be ‘in between’?”. *Applied Psycholinguistics* 15: 417-446.
36. Service, E. & Kohonen, V. (1995) “Is the relation between phonological memory and foreign language learning accounted for by vocabulary acquisition?”. *Applied Psycholinguistics* 16: 155-172.
37. Flege, J. (1995) “Two procedures for training a novel second language phonetic contrast”. *Applied Psycholinguistics* 16: 425-442.
38. Zampini, M. (1996) “Voiced stop spirantization in the ESL speech of native speakers of Spanish”. *Applied Psycholinguistics* 17: 335-354.
39. Bialystok, E. & Majumder, S. (1998) “The relationship between bilingualism and the development of cognitive processes in problem solving”. *Applied Psycholinguistics* 19: 69-85.



40. Nittrouer, S. & Miller, M. (1999) "The development of phonemic coding strategies for serial recall". *Applied Psycholinguistics* 20: 563-588.

## Text 1

Word count: 158

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)</b>	Two experiments <i>were designed</i> to examine Carey's (1978) theory that face recognition improves with age because young children encode <i>predominantly</i> piecemeal details from unfamiliar faces, whereas older children and adults rely <i>mainly</i> on configurational information.
<b>M1</b>	In Expt 1, children (7-16 years) <i>were tested</i> for ability to recognize unfamiliar faces presented upright and inverted.
<b>R1</b>	Performance in the inverted condition was significantly poorer for all age groups.
<b>M2</b>	In a second experiment, subjects (4-8 years) <i>were given</i> a forced-choice, face recognition task.
<b>R2</b>	The <i>tendency</i> of young children to select incorrectly paraphernalia cues as a basis for identity judgements <i>was found</i> to be dependent on the similarity of the faces paired in each trial.

<b>C</b>	<i>These results suggested that Carey's original data were contaminated by floor effects. It was argued that there is insufficient evidence to endorse Carey's explanation of an encoding switch at age 10 years as a satisfactory account of the development of face recognition.</i>
----------	--

## Text 2

Word count: 174

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	The role of mental imagery in human cognition and memory has been studied by means of <i>a variety of</i> experimental procedures.
<b>I (M2-S1B)</b>	However, <b>it is frequently not possible to make unambiguous predictions concerning the interactions among the procedures, and it is thus unclear</b> whether they <i>can</i> be said to converge upon a single theoretical construct.
<b>I (M3-S1B)<sub>1</sub></b>	This problem <i>can be resolved</i> by means of the systematic collection of subjects' reports, which provide a crucial additional source of evidence on the availability and efficacy of imaginal mediators in cognitive tasks.
<b>I (M3-S1B)<sub>2</sub></b> + <b>M</b>	<i>Two experiments studied</i> mediator reports in paired-associate learning.

<b>C</b>	<i>It was concluded:</i> that imagery instructions enhance the availability of imaginal mediators rather than their efficacy; that stimulus concreteness enhances both the availability and the efficacy of such mediators; that mental imagery is not an effective mediating device in the case of abstract material; that imagery instructions enhance the availability of imaginal mediators in the case of both concrete and abstract material; but that such instructions <i>may</i> depress the recall of items which fail to produce imaginal mediators.
----------	---

### Text 3

Word count: 248

Sentence count: 9

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	<i>These experiments deal</i> with the relation between the ability of a person to carry out efficient action in a situation, and that of the same person to answer questions about the situation.
<b>I (M2-S1B)</b>	<b>Existing knowledge on the topic has <i>various</i> gaps.</b> In particular it is <i>relatively</i> common to show performance changing without change in verbal knowledge, but <i>relatively</i> rare to show changes in verbal knowledge without change in performance. A second major gap is in defining the kinds of task on which discrepancies <i>may</i> be expected to occur, since in everyday life <u>we</u> <i>quite frequently</i> expect people to know what they are doing.

<p><b>I (M3-S1B)<sub>2</sub></b> + <b>M</b></p>	<p>Accordingly, seven groups of subjects were studied controlling two artificial systems, one concerned with transportation and one with a model of the economy. The discrepancy between verbal knowledge and performance <i>was changed</i> by altering the number or salience of the relationships being learned, and this is at least one factor in making tasks show the discrepancy.</p>
<p><b>R</b></p>	<p>Several instances <i>were found</i> of change in verbal question answering opposed to or in the absence of any change of decision performance; thus, the discrepancy is not asymmetric affecting only one measure of learning.</p>
<p><b>C</b></p>	<p><i>This implies</i> that all the variables <i>examined</i> affect processes specific to one or other measure, rather than changing a common database. <b><i>The results challenge a common view of the discrepancy between performance and verbal accounts, and suggest rather that there are alternative modes of</i></b> precessing in human decision making, each mode having its own advantages.</p>

#### Text 4

Word count: 261

Sentence count: 9

Paragraph count: 1

<b>I (M3-S1B)</b>	This study is about the spatial demands made by graphs and about the ability of young children to cope with these demands. <u>We</u> wanted to answer two questions: (1) whether children can coordinate spatial information from two axes, and (2) whether the fact that they have to extrapolate non-perpendicular lines in graphs causes them particular difficulty.
<b>M</b>	Sixteen six- and 16 nine-year-olds <i>were asked</i> to extrapolate imaginary lines in a graph-like task in order to find the position on one axis of a graph corresponding to a given position on the other axis. In addition to these axis-to-axis extrapolations, they <i>were given</i> separate line-to-axis and axis-to-line problems requiring the extrapolation of only one line.



<p><b>R</b></p>	<p>The older children made significantly smaller errors than the younger ones, but <i>on the whole</i> both age groups made accurate extrapolations in all three types of problems. <i>Most importantly</i> the errors in the axis-to-axis condition were not significantly different from the mean summed errors in the other two conditions. <i>This shows</i> that children do not experience difficulty with the axis-to-axis condition over and above the difficulty of extrapolating two single lines. <u>We</u> found no evidence that the non-perpendicularity of the lines which the children had to extrapolate caused them any particular difficulty.</p>
<p><b>C</b></p>	<p><u>We</u> concluded that young children have a more adequate understanding of rectangular coordinate systems than has been evident from their performance in other tasks and that young children can <i>in principle</i> cope with the spatial demands made by graphs <i>surprisingly well</i>.</p>

## Text 5

Word count: 134

Sentence count: 6

Paragraph count: 1

<b>I (M1-S3)</b>	Moreland & Zajonc (1982) obtained measures of familiarity, favourability, and similarity to self in person perception, and argued that these are all mediated via a single affective factor.
<b>I (M2-S1A)</b>	<b>Their data <i>can, however, be interpreted to support a two-factor model</i></b> such as that previously advanced by Zajonc (1980).
<b>I (M3-S1B)</b> + <b>M</b>	An experiment <i>was carried out</i> to investigate this <i>possible</i> interpretation, using ratings on the same three indices for 45 trait adjectives.
<b>R</b>	Independent links <i>were found</i> between similarity and familiarity, and between similarity and favourability, <b>thus supporting dual mediation</b> . <i>It was also found</i> that, while the response distributions for familiarity and similarity were symmetrical about the subject means, the favourability distribution was strongly asymmetrical.

<b>C</b>	<i>It was inferred</i> that the informational bias identified by Benjafield & Adams-Webber (1976) <i>may</i> constitute an operating characteristic of a <i>relatively</i> independent affective mediator.
----------	--

## Text 6

Word count: 144

Sentence count: 8

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	A questionnaire study <i>was carried out</i> with three groups of musicians: experienced professional orchestral players (n = 65), music students (n = 41), and members of an amateur orchestra (n = 40). Musical performance anxiety <i>was assessed</i> together with neuroticism, everyday fears, self-statements and behavioural coping strategies.
<b>R</b>	Performance anxiety was lowest in the professional group and highest among students. In all three groups, performance anxiety was related to neuroticism and everyday fears, <i>notably</i> fear of crowds and social situations. A negative association between age, performing experience and stage fright <i>was observed</i> in professional musicians but not to other groups. Six clusters of self-statements <i>were identified</i> . Catastrophizing was positively linked with performance anxiety in all groups, while realistic appraisal of the performance situation was used <i>most commonly</i> by those with moderate levels of stage fright.
<b>C</b>	Implications for the conceptualization and management of stage fright <i>are discussed</i> .

**Text 7**

Word count: 151

Sentence count: 6

Paragraph count: 1

<b>M</b>	Two samples of children with reading difficulties - 145 poor readers whose word reading was one standard deviation or more below the mean and 121 dyslexic children - <i>were tested</i> on the British Ability Scales.
<b>I (M3-S1A)</b>	<i>The purpose of the investigation was to examine whether they would score relatively poorly on verbal tests and relatively well on non-verbal tests along the lines suggested by Lawson &amp; Inglis (1985). Also the question of sex differences was investigated.</i>
<b>R</b>	<i>The BAS results tended to confirm the Lawson &amp; Inglis finding that (1) children with learning disabilities in general have verbal deficits and show significantly higher performance on non-verbal tasks, and that (2) this tendency is more pronounced in males than in females.</i>

<b>C</b>	The results, although statistically significant, are <i>not totally</i> consistent either within or between samples. <i>The discussion considers possible</i> explanations for the findings and the <i>possibility</i> that different subgroups of these samples <i>might</i> show differential effects.
----------	--

## Text 8

Word count: 247

Sentence count: 13

Paragraph count: 3

<b>I (M2-S1C)</b>	Is there a common basis for the ethnic and sex differences that are characteristically obtained on psychometric tests of spatial ability?
<b>I (M3-S1B)</b>	<i>Three experiments approached</i> this question by observing subject differences in the recognition and reconstruction of visual-spatial displays. The pattern of performance on these experimental tasks <i>was compared</i> with that on a traditional spatial ability test.
<b>M1</b>	In the first experiment, two samples of 40 students, balanced for sex, from Zimbabwe and Scotland respectively, attempted a forced-choice recognition task for meaningful scenes.
<b>R1</b>	Both ethnic groups and both sexes showed equivalent performance.
<b>M2</b>	The same subjects then undertook a task involving the reproduction on an arrangement of blocks into two-dimensional plan and elevation views.

<b>R2</b>	On this task, involving spatial reorientation, the Zimbabweans made over three times as many errors as the Scots.
<b>M3</b>	In a third experiment the requirement for spatial reorientation <i>was added</i> to the original recognition task and this was performed by a further 40 subjects.
<b>R3</b>	A significant difference between ethnic groups now emerged and this effect covaried with spatial ability. Again, however, no sex difference <i>was observed</i> .
<b>C</b>	<p style="text-align: center;"><i>The overall pattern of results points to spatial reorientation as a major factor in the cross-ethnic differences. The absence of a sex difference on the experimental tasks contrasts with its appearance in both samples on the spatial ability test and represents a puzzling obstacle to <u>our</u> current understanding. <b>This dissociation of sex and ethnic differences provides evidence against the hypothesis that they stem from the same source.</b></i></p>



**Text 9**

Word count: 168

Sentence count: 7

Paragrah count: 2

<b>I (M3-S1B)</b>	<i>Three studies are reported which investigate word priming and memory in congenitally blind and sighted children.</i>
<b>M</b>	Two conditions were <i>of particular interest</i> , a neutral condition, where children read aloud or repeated a word, and a generate condition, where children supplied a target word to a close semantic associate given as a cue.
<b>R</b>	Later, memory for those items <i>was tested</i> and although the two groups did not differ in overall performance a marked interaction across group and condition <i>was noted</i> . The sighted children showed a significant generation effect (Slamecka & Graf, 1978), where active involvement in a word task led to increased memory. In contrast, the congenitally blind remembered <i>relatively</i> less material when active participation was required, showing a reverse-generation effect.

<b>C</b>	The results <i>are discussed</i> with reference to the effect on memory of data and conceptually driven processing in the study phase. <i>It is tentatively suggested</i> that the congenitally blind <i>may</i> show different learning strategies from the sighted as a result of allocating more attention to sensory information processing.
----------	--

## Text 10

Word count: 167

Sentence count: 6

Paragrah count: 2

<b>I (M1-S3)</b>	Marshall & Walker (1987) found that pictorial stimuli yield visual priming that is disrupted by an unpredictable visual event in the response-stimulus interval. They argue that visual stimuli are represented in memory in the form of distinct visual and object codes. Bruce & Young (1986) <i>propose</i> similar pictorial, structural and semantic codes which mediate the recognition of faces, <b>yet repetition priming results obtained with faces as stimuli (Bruce &amp; Valentine, 1985), and with objects (Warren &amp; Morton, 1982) are quite different from those of Marshall &amp; Walker (1987)</b> , in the sense that recognition is facilitated by pictures presented 20 minutes earlier.
<b>I (M3-S1B)</b> + <b>M</b>	<i>The experiment reported here used</i> different views of familiar and unfamiliar faces as stimuli in a serial choice reaction-time task and

<b>R</b>	<i>found</i> that, with identical pictures, repetition priming survives an intervening item requiring a response, with both familiar and unfamiliar faces. Furthermore, with familiar faces such priming was present even when the view of the prime was different from the target.
<b>C</b>	The theoretical implications of these results <i>are discussed</i> .

## Text 11

Word count: 157

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	Psychologists have <i>generally</i> investigated remembering as an intrapersonal phenomenon.
<b>I (M2-S1A)</b>	However, <b>everyday remembering <i>often</i> has a more social interpersonal flavour</b> , particularly when two or more people jointly recall and discuss an event they have experienced or witnessed.
<b>I (M3-S1B)</b> + <b>M</b>	<i>This study examines</i> quantitative differences between individual, dyadic and four-person group free and cued recall of a purposive social interaction - a fictional police interrogation - and <i>contrasts</i> the findings from two subject samples, police officers and students.
<b>R</b>	Overall, groups outperformed individuals in terms of accuracy, made fewer evaluative comments about the interaction, but were also more prone to a misplaced overconfidence in inaccurate recall than were the individuals. <i>Several</i> interesting differences in accuracy and the incidence of different types of error <i>were found</i> between police and student subjects.

<b>C</b>	These findings <i>are discussed</i> in terms of differences in familiarity with task requirements and the type of interaction recalled between subject samples, and the ecological validity of the findings for each subject sample.
----------	--

## Text 12

Word count: 133

Sentence count: 7

Paragraph count: 1

<b>I (M1-S2)</b>	Audience effects on individual behaviour have <i>often</i> been interpreted in terms of increased arousal, which in turn enhances the emission of dominant responses.
<b>I (M2-S1B)</b>	However, <b>such drive-based explanations do not readily fit all of the evidence on audience effects.</b>
<b>I (M3-S1B)</b>	<i>The present study examined</i> the influence on driver behaviour of the presence of a passenger.
<b>R</b>	The main findings were that the incidence of both signalling and speeding appeared to be reduced by the presence of certain types of passenger. <b><i>These results seem to support a control theory rather than a drive-based account of social facilitation.</i></b> In addition, the incidence of close following and speeding differed significantly across type of driver.
<b>C</b>	Taken together, <i>these results suggest</i> ways for improving road safety propaganda based on the specific norms salient for specific categories of road user.

### Text 13

Word count: 207

Sentence count: 8

Paragraph count: 1

<b>I (M1-S2)</b>	<i>It is assumed</i> that when the outcome mentioned in the consequent of a conditional statement refers to an unsatisfactory event, subjects <i>may</i> look for information about the other alternative and thus be prompted to select the “q” card in the Wason selection task more often.
<b>I (M3-S1B)</b> + <b>M</b>	<i>Experiment 1 tested</i> 80 adult subjects on four sentences where a change in wording <i>was used</i> to denote a change in the value of the outcome, for example: ‘if one chooses school P, one is sure of passing (failing) the exam’. Each subject had to solve the Wason selection task with four different sentences and two values of the outcome. For each sentence subjects <i>were invited</i> to assume they had a specified goal, for example to pass an exam.



<b>R</b>	The frequency of the selection of the “q” card was 64 per cent with an unsatisfactory outcome compared to 27 per cent with a satisfactory outcome, and the frequency of the correct answer “pq” was 21 versus 6 per cent. In Expt. 2 the effect of the outcome value was duplicated when a goal <i>was specified</i> , but was not significant when no goal <i>was specified</i> .
<b>C</b>	The results <i>are interpreted</i> as showing that a goal assigns different degrees of pertinence to pieces of information.

## Text 14

Word count: 110

Sentence count: 6

Paragraph count: 1

<b>I (M1-S1)</b> + <b>(M2-S1B)</b>	Meaning in life is an <i>important</i> construct in psychology, but <b>one which has been the focus of limited research</b> . <i>Most</i> research has concentrated on the relation between meaning and psychopathology, and has been conducted with the Purpose in Life test.
<b>I (M3-S1B)</b>	<i>This paper examines</i> the relation between meaning in life and psychological well-being using <i>several</i> meaning measures and both positive and negative well-being dimensions.
<b>R</b>	A strong association <i>is found</i> between meaning in life and well-being, which is replicated in two different samples. Meaning in life <i>is found</i> to have a stronger association with positive than with negative well-being dimensions,
<b>C</b>	<i>suggesting</i> the value of taking a salutogenic approach to mental health research. Implications and suggestions for future research are discussed.

**Text 15**

Word count: 211

Sentence count: 8

Paragraph count: 1

<b>M</b>	Two groups of 80 subjects rated 15 paintings on five-point pleasingness scale in accordance with a relative instruction, requiring them to compare the paintings with one another, or an absolute instruction, requiring them to compare the paintings with other, familiar anchor paintings. Each subject also ranked the paintings on pleasingness, either before or after doing ratings.
----------	---

<p><b>R</b></p>	<p>Within-subject correlations between ranks and ratings revealed that, for all but a small minority of subjects, there was a moderate to high level of correspondence between the two measures. There was a <i>tendency</i> for those subjects who had shown good correspondance between their ranks and their ratings to show a greater spread in their ratings. The relative instruction also produced a greater spread in subjects' ratings compared with the ratings obtained under the absolute instruction. The means of the ranks and the ratings that the subjects assigned to the individual paintings were highly correlated in both groups.</p>
<p><b>C</b></p>	<p>The results <i>are discussed</i> in terms of the respective merits of ranking and rating procedures, and <i>it is concluded</i> that, where practical and statistical considerations permit, and where the items are highly discriminable, a ranking procedure has advantages. Where ranking is precluded, however, a rating procedure with relative instructions offers <i>some</i> of the same desirable characteristics.</p>

## Text 16

Word count: 124

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	Findings from the investigation of naming and categorization latencies for objects and familiar faces have informed <u>our</u> theories of recognition of those items.
<b>I (M2-S1B)</b>	However, <b>comparisons between research on faces and objects is complicated because experiments address different levels of representation</b> ; objects are examined at the concept level and faces at an individual level.
<b>I (M3-S1B)</b>	<i>Three experiments examine</i> the categorization and naming of specific objects in order to bridge the gap between faces and generic objects.
<b>R</b>	The asymmetry <i>frequently observed</i> in naming and categorizing faces and objects and their printed labels <i>is observed</i> to extend to the domain of individual items (cartoon characters)..
<b>C</b>	<b>This pattern of results is discussed in terms of the validity of using models of face recognition to inform models of object recognition.</b>

**Text 17**

Word count: 95

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This paper explores</i> a judgement heuristic (availability; Kahneman, Slovic & Tversky, 1982) from a developmental perspective.
<b>M</b> + <b>R</b>	<i>A series of four studies</i> using two different types of task <i>finds</i> that the judgment bias associated with the availability heuristic <i>can</i> be replicated in children of six years and older. However, six-year-olds are less <i>likely</i> to base judgement on recall than the elders, and do so only where recall <i>is</i> directly <i>cued</i> or where the judgement task <i>is embedded</i> in a familiar and interesting context.
<b>C</b>	Results <i>are discussed</i> in relation to both developmental and adult judgement issues.

## Text 18

Word count: 143

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	Na×ve ecology <i>is defined</i> as the layperson’s understanding of how organisms interact in and with the natural world, and all cognition, particularly causal cognition, in which that understanding is evoked.
<b>I (M3-S1B)</b>	<i>Stimulus materials</i> in this study <i>described</i> a simple model of a food web.
<b>M</b>	Participants judged how to bring about a particular stable change in the food web, and also the effects of different kinds of disturbance within the food web.
<b>R</b>	Their judgements showed a consistent <i>tendency</i> named the “dissipation effect”: a <i>tendency</i> to judge that effects of a perturbation at a particular locus in a ecosystem weaken or dissipate as they spread out from the locus. The effect is not typical of real food webs.

<b>C</b>	<i>The finding may represent</i> an effect of domain-specific acquired beliefs, or participants <i>may</i> have been making analogies with the properties of more familiar complex physical systems.
----------	--



## Text 19

Word count: 153

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b> + <b>M<sub>1</sub></b>	A new method derived from Bartel's (1958) studies <i>was used</i> to investigate sex differences in spatial perception.
<b>I (M1-S3)</b> + <b>M<sub>2</sub></b>	Bartel employed two related tasks; one of these tasks called for responses to a pictorial stimulus representing spatial arrangement in perspective and the other for responses to an analogous task presented in three dimensions. Modified forms of these tasks <i>were used</i> .
<b>R<sub>1</sub></b>	Consistent differences between men and women <i>were found</i> , the men showing greater distance constancy in relation both to real and to depicted distances. In addition a decline of such constancy with age <i>was observed</i> .
<b>I (M3-S1B)<sub>2</sub></b> + <b>M<sub>3</sub></b>	The pictorial task <i>was also used</i> to test two groups of students of architecture: one <i>relatively</i> inexperienced and the other more experienced with the discipline, on the <i>assumption</i> that experience of spatial judgements <i>might</i> influence performance on this task.

<b>R2</b>	<i>It was found</i> that whilst familiarity did not affect responses there was a consistent difference between responses of men and women.
-----------	--

## Text 20

Word count: 198

Sentence count: 8

Paragraph count: 1

<b>I (M2-S1C)</b>	The faces of twins present <u>us</u> with a very complex visual task. How do <u>we</u> get from the stage of being unable to distinguish between the twins, to being able to identify each twin correctly and readily by name? Does the actual process of learning to distinguish between the twins make <u>us</u> change the way <u>we</u> see them?
<b>I (M1-S3)</b>	<i>Recent</i> literature has demonstrated such an effect of categorization on perception in what has come to be known as categorial perception (Harnad, 1987). Evidence is available for the categorial perception of stimuli belonging to categories of which <u>we</u> are innately aware (see Etcoff & Magee, 1992), but the labelling of individuals by name is arbitrary and is something <u>we</u> must learn.
<b>I (M3-S1B)</b>	<i>The present paper reports</i> two experiments which provide converging evidence that categorial perception <i>can</i> be induced for previously unfamiliar categories through training.

<b>R</b>	After training, photographs of the same twin appeared more similar to one another and photographs of the different twins appeared less similar to one another compared to ratings obtained before training.
<b>C</b>	This shift in perception <i>may</i> help <u>us</u> explain how <u>our</u> processing of twin faces <i>can</i> reach a point at which <u>we</u> wonder how <u>we</u> ever confused them.

## Text 21

Word count: 145

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	Researchers who study the writing process have found that beginning writers do little spontaneous revising of their own texts.
<b>I (M3-S1B)</b>	<i>This study explores the possibility</i> that beginning writers do not revise because they do not read their own writing.
<b>I (M2-S1C)</b>	The <i>assumption</i> behind the study is that explicit self-questioning strategies <i>would</i> engage young writers in reading their texts; thus they <i>would</i> become more active revisers.
<b>M</b>	The experimental intervention is a question-prompt computer program ( <i>added</i> to a word processing program) that guides the 11 to 16-year-old subjects to examine their own writing by asking themselves questions about their texts. This process <i>was intended</i> to engage the subjects in reading the text closely and revising more extensively.
<b>C</b>	<i>Analyses</i> of the number and nature of revisions <i>indicate</i> that self-reflective question-prompts engage students in reading their texts and lead to significant changes in revising strategy.

**Text 22**

Word count: 80

Sentence word: 3

Paragraph count: 1

<b>I (M3-S1B)</b>	This research <i>was designed</i> to explore whether maintenance of the ability to discriminate phonetic distinctions requires specific linguistic/perceptual experience, or whether broadened but nonrelevant linguistic experience <i>can</i> result in generalized perceptual flexibility.
<b>M</b>	To explore this question, bilingual and trilingual adult subjects <i>were compared</i> to monolingual English adults on their ability to discriminate phonetic distinctions that are not used in any of their native language(s).
<b>C</b>	<i>Results suggest</i> that broadened, nonspecific linguistic experience does not contribute to increased perceptual flexibility.

### Text 23

Word count: 181

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)</b>	In this study <u>we</u> compared two methods for teaching grammatical exceptions in the foreign language classroom.
<b>M</b>	Thirty-nine students in two sections of an introductory college French course served as subjects. Eight target structures, exemplifying ‘exceptions to a rule’, <i>were</i> randomly <i>assigned</i> to one of two teaching conditions for a section taught in the spring; each structure <i>was assigned</i> to the opposite teaching condition for a section taught the following fall. In one condition <u>we</u> simply taught the students the exception as an exception. In the other - what <u>we</u> called the Garden Path condition - <u>we</u> presented canonical exemplars encouraging students to induce the rule; <u>we</u> then asked them to generate the form (which <u>we</u> knew to be an exception) and then corrected their resulting overgeneralization error.

<b>R</b>	<i>Analysis</i> of subsequent formal testing <i>showed</i> that students learned the exception better in the Garden Path condition and that this advantage persisted throughout the semester-long course.
<b>C</b>	<u>We</u> <i>hypothesized</i> that this technique helped students to focus attention both on the rule and on the features of the particular structure that marked it as an exception.



**Text 24**

Word count: 198

Sentence count: 8

Paragraph count: 1

<b>I (M3-SIB)</b>	On the basis of prior research and a theoretical analysis of picture naming, <u>we</u> examined three correlates of child picture naming difficulty: age of name acquisition, picture-to-name uncertainty, and name generality (instance of category names).
-------------------	--

<p><b>R</b></p>	<p><i>Study 1 demonstrated</i> that late age acquisition and high adult name uncertainty were associated with increased naming difficulty for both single instance and category items from Expressive One-Word Picture Vocabulary Test (EOWPVT) (Gardner, 1979). Age of acquisition was a particularly strong predictor for instance items. Moreover, category pictures were more difficult to name than single instance pictures with names of comparable age of acquisition. In study 2, <i>analysis</i> of incorrect responses to category pictures <i>demonstrated</i> that children made more instance errors than adults, but not more errors of other kinds. <i>Study 2</i> also <i>showed</i> that a child uncertainty measure correlated more strongly with EOWPVT item difficulty than the adult measure of Study 1.</p>
<p><b>C</b></p>	<p><i>The findings suggest</i> that the picture naming scores reflect both the availability of the names in lexical memory and their accesibility, which, in turn, <i>partly</i> depend on the amount of interference from competing responses. <i>Some</i> implications for the interpretation and remediation of picture naming deficits <i>are suggested</i>.</p>

**Text 25**

Word count: 175

Sentence count: 9

Paragraph count: 1

<b>I (M2-S1C)</b>	Implicit in <i>much</i> work on literate discourse and its consequences is the question of what relation exists between forms of discourse and cognitive organization.
<b>I (M3-S1A)</b>	The focus of this article is the relation between specific features of literate discourse and paradigmatic organization in children's thought.
<b>M</b>	Nineteen parent-child dyads <i>were videotaped</i> during bookreading when the child was 2 years old. Three levels of object labels and reference to propositional attitudes <i>were coded</i> in parents'talk during bookreading episodes with their children. Three measures of paradigmatic organization in the child's thought <i>were obtained</i> at age 3. The features of parents'talk <i>were</i> then <i>correlated</i> with measures of the child's thought.

<p><b>R</b></p>	<p>A significant correlation <i>was found</i> between superordinate level labels in parents' talk and all three measures of children's paradigmatic organization, but basic and subordinate level labels <i>were not correlated</i>. Parents' use of cognitive verbs and verbs referring to labeling and interpretation <i>were also correlated</i> with children's paradigmatic organization.</p>
<p><b>C</b></p>	<p><i>The results are interpreted as indicating</i> situation-specific organizational preferences in talk and thought.</p>

## Text 26

Word count: 118

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	Children with specific reading disability fail to understand <i>some</i> complex spoken sentences as well as good readers.
<b>I (M3-S1B)</b>	<i>This investigation sought</i> to identify the source of poor readers' comprehension difficulties.
<b>M</b>	Second-grade good and poor readers <i>were tested</i> on spoken sentences with restrictive relative clauses in two experiments <i>designed</i> to minimize demands on working memory.
<b>R</b>	<i>The methodological innovations resulted</i> in a high level of performance by both reader groups, demonstrating knowledge of relative clause structure. The poor readers' performance closely paralleled that of good readers both in pattern of errors and in awareness of the pragmatic aspects of relative clauses.
<b>C</b>	<i>The findings suggest</i> that limitations in processing account for comprehension difficulties displayed by <i>some</i> poor readers in previous investigations.

## Text 27

Word count: 127

Sentence count: 6

Paragraph count: 1

<b>I (M1-S1)</b>	There is wide agreement that current psycholinguistic techniques (especially discourse analysis) <i>may</i> help <u>us</u> better understand the relationship between psychopathology and linguistic performance. This application <i>would seem particularly worthwhile</i> in the domain of schizophrenic speech, which has resisted adequate characterization in terms of earlier linguistic paradigms.
<b>I (M1-S3)</b>	A major effort at systematic psycholinguistic analysis has been made and is most developed in Rochester and Martin's (1979) monograph.
<b>I (M2-S1B)</b>	While <u>we</u> see their interest in utilizing discourse analysis to be very appropriate, <b>it manifests <i>some serious shortcomings</i></b> .
<b>I (M3-S1A)</b>	Accordingly, <u>we</u> <i>attempt</i> to give a clearer picture of discourse analysis and the <i>assumptions</i> behind it. This elucidation <i>should</i> provide a better <i>indication</i> of both the promise and the procedures of a discourse-analytic approach to the speech productions of psychiatric populations.

## Text 28

Word count: 140

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>The study examined</i> the influence of reading experience on the development of component spelling skills.
<b>M</b>	Three groups of sixth-grade children <i>were identified</i> : good readers - good spellers (Good), good readers - poor spellers (Mixed), and poor readers - poor spellers (Poor). The children completed three different spelling tasks that assessed component spelling skills involving the use and knowledge of sound-spelling, orthographic, morphological, and visual information.
<b>R</b>	Good subjects performed consistently better than Mixed and Poor subjects. Mixed and Poor subjects did not differ on measures requiring use and knowledge of sound-spelling, orthographic, and visual information. Mixed subjects performed better than Poor subjects on measures assessing use and knowledge on morphological information.
<b>C</b>	<i>It is suggested</i> that, as a result of their greater experience with print, Mixed subjects have better knowledge of <i>some</i> of the linguistic, but not the visual, characteristics of words.

**Text 29**

Word count: 180

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This report presents</i> the results of the second year of a 4-year longitudinal evaluation of a partial French immersion program in Cincinnati, Ohio.
<b>I (M1-S1)</b>	This program is <i>of particular interest</i> because it includes children from lower socioeconomic group and ethnic minority group (black) backgrounds in addition to majority group (white), middle-class students who have been the subject of <i>virtually</i> all evaluations of immersion to date.
<b>M</b>	The native language development (English), academic achievement (math), and second language attainment (French) of pilot groups of middle- and working-class students and of black and white students who were in grade 1, as well as those of a follow-up cohort of kindergarten students, <i>were assessed</i> .



<p><b>R</b></p>	<p><i>The results showed</i> that performance differences in English and mathematics between subgroups of students do not depend on the program or instruction they were receiving. Moreover, <i>it was found</i> that the working-class and black students scored as well as the middle-class and white students on the French language tests.</p>
<p><b>C</b></p>	<p>The results <i>are discussed</i> further in terms of the immersion students' level of proficiency in French.</p>

### Text 30

Word count: 142

Sentence count: 6

Paragraph count: 1

<b>I (M1-S3)</b>	<i>It has recently been suggested</i> that the developmental association between nonword repetition performance and vocabulary knowledge reflects the contribution of phonological memory processes to vocabulary acquisition (e.g. Gathercole & Baddeley, 1989).
<b>I (M2-S1A)</b>	<b>An alternative account of the association is</b> that the child uses existing vocabulary knowledge to support memory for nonwords.
<b>I (M3-S1B)</b>	<i>The present article tests</i> between these two alternative accounts by evaluating the role of phonological memory and linguistic factors in nonword repetition.
<b>M + R</b>	In a longitudinal database, repetition accuracy in 4-, 5-, and 6-year-olds <i>was found</i> to be sensitive to two independent factors: a phonological memory factor, nonword length, and a linguistic factor, wordlikeness.

<b>C</b>	To explain these combined influences, <i>it is suggested</i> that repeating nonwords involves temporary phonological memory storage which <i>may</i> be supported by either a specific lexical analogy or by an appropriate abstract phonological frame generated from structurally similar vocabulary items.
----------	---

### Text 31

Word count: 153

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	<i>It has been suggested that manual sign systems designed to represent English are unlearnable</i> because they are not natural languages.
<b>I (M3-S1B)</b> + <b>M1</b>	In order to examine this premise, <i>the present study examines</i> reading achievement and expressive English skills of 13 profoundly deaf students, aged 7; 1 to 14; 8, who were educated using only manually coded English sign (MCE) system.
<b>M2</b>	Linguistic structures selected for analysis <i>were designed</i> to reflect unique characteristics of English, as well as those common to English and American Sign Language, and to obtain a broad picture of English skills.
<b>R</b>	<i>Results showed</i> that the deaf students had expressive English skills comparable to hearing control group for <i>some</i> features of English that reflected syntactic and lexical skills. <i>They showed</i> substantial deficits in inflectional morphological skills that were not predictive of the complexity of their language.

<b>C</b>	<i>The results reveal</i> which aspects of MCE <i>appear</i> to be learnable and which <i>appear</i> problematic for deaf students.
----------	---

### Text 32

Word count: 230

Sentence count: 32

Paragraph count: 1

<b>I (M1-S2)</b>	Phonological awareness <i>is thought</i> to be related to children's success in learning to read because it <i>indicates</i> an awareness of the internal structure of words.
<b>I (M2-S1A)</b>	Morphological awareness, which <i>has been found</i> to be related to reading achievement for older students, <b>may offer a more comprehensive measure of linguistic sensitivity</b> because it entails not only phonological awareness, but also other aspects of linguistic knowledge.
<b>I (M3-S1B)</b>	The research study reported herein <i>was designed</i> to investigate the extent to which phonological awareness contributes to the morphological awareness of first graders and to determine the extent to which phonological and morphological awareness account for variance in word reading.

<b>M</b>	Two tasks of morphological awareness <i>were used</i> , one assessing judgements of morphological relations and the other assessing the production of inflected and derived forms. The children <i>were also given</i> tests of phonological awareness, vocabulary and word reading.
<b>R</b>	<i>Results showed</i> that phonological awareness contributed significantly to performance on morphological awareness tasks; in addition, children with and without phonemic awareness differed significantly in their ability to produce morphologically complex words.
<b>C</b>	Phonological awareness and morphological awareness contributed significantly to variance in word reading, although the contribution of phonological awareness was the larger of the two. Further studies <i>are needed</i> to investigate the impact of the delayed acquisition of phonological awareness on the development of morphological awareness and the relationship of morphological awareness to reading achievement over the school years.

### Text 33

Word count: 154

Sentence count: 6

Paragraph count: 1

<b>I (M1-S3)</b>	An earlier experiment by Byrne (1981) found that young, poor readers <i>tend</i> to act out sentences containing adjectives with object control, like “easy”, as though they were adjectives with subject control, like “eager”. Byrne interpreted this result as evidence that poor readers lag in the acquisition of syntactic knowledge underlying this distinction.
<b>I (M2-S1B)</b>	However, the <i>possibility</i> that a processing limitation <i>could</i> have contributed to the poor readers’ difficulties with object-control adjectives <i>has not been fully explored</i> .
<b>I (M3-S1B)</b> + <b>M</b>	In an effort to tease apart these alternatives, <u>we</u> tested comprehension of object-control adjectives in second grade good and poor readers, using both an act-out task and a sentence-picture matching task.



<b>R</b>	<b>Contrary to Byrne's (1981) results, <u>we</u> did not find significant group differences in interpreting object-control adjectives with either task.</b>
<b>C</b>	Reasons for the discrepancy <i>are suggested</i> , and remedies for the pitfalls in designing experiments to assess syntactic knowledge in young children <i>are proposed</i> .

### Text 34

Word count: 118

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	<i>This article reports</i> a longitudinal study of developing communication in two profoundly deaf preschool boys growing up in oral deaf families who use oral English as their primarily language.
<b>M</b>	The children <i>were videotaped</i> in play interactions with their profoundly deaf mothers.
<b>I (M3-S1B)<sub>2</sub></b>	The nature of the gestural communication used by the dyads is the focus of interest in this article.
<b>R</b>	In contrast to hearing mothers of deaf children, the two mothers used extensive gestures to accompany their speech, including rich and varied gesture sequences. The children also developed a repertoire of gestures that, <i>in most respects</i> , mirrored the properties of the input gesture they received.
<b>C</b>	<i>The results provide</i> a window on the natural ontogenesis of a compensatory gestural system.

### Text 35

Word count: 119

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>The present study investigates</i> the real-time costs of sentence processing in early Spanish-English bilinguals.
<b>R</b>	<i>Our results indicate</i> that bilinguals use an amalgam (a combination of L1 and L2 strategies) of monolingual strategies in choosing the agent of a sentence. The reaction time (RT) <i>data, however, reveal</i> a <i>slightly</i> larger language specific component than the choice data. That is, bilinguals <i>appear</i> to fall more “in between” the two monolingual groups in their profiles than in their RT profiles.
<b>C</b>	<i>This implies</i> that early bilinguals <i>may</i> be paying a language-specific processing cost in order to maintain an “in between” profile. The nature of the bilingual/ monolingual dichotomy and its implications for the study of bilingual language processing <i>are discussed</i> .

### Text 36

Word count: 194

Sentence count: 6

Paragraph count: 1

<b>I (M1-S3)</b>	In an earlier study, Service (1992) found that phonological short-term memory, reflected in the ability to repeat English-sounding pseudowords, was a good predictor of learning English as a foreign language over a period of three school years.
<b>I (M3-S1A)</b>	<i>This study attempts</i> to find out to what extent foreign vocabulary learning is the critical learning process related to pseudoword repetition accuracy.

<p><b>M</b> + <b>R</b></p>	<p><i>Regression analyses</i> on repetition data and learning measures <i>revealed</i> significant correlations between pseudoword repetition and foreign language learning, even after a measure of general academic achievement <i>had been partialled out</i>. In a fixed-order multiple regression analysis - with predictors entered in the order of general achievement, foreign language vocabulary, and pseudoword repetition - no additional variance in any foreign language measure studied <i>could</i> be accounted for by pseudoword repetition in the third step. When vocabulary in the second step <i>was replaced</i> by performance in foreign language essay writing or the correct reproduction of dictated discourse - both highly related to overall foreign language performance - repetition significantly increased the proportion of accounted variance, especially for two foreign language vocabulary tasks and a listening comprehension task.</p>
<p><b>C</b></p>	<p>Phonological memory <i>may</i>, therefore, be specifically related to foreign vocabulary learning.</p>

**Text 37**

Word count: 193

Sentence count: 8

Paragraph count: 1

<b>I (M1-S2)</b>	Native speakers of Mandarin who learn English as a second language (L2) <i>frequently</i> misidentify unreleased tokens of /t/ and /d/ in the final position of English words.
<b>I (M3-S1A)</b>	<i>The purpose of this study was</i> to evaluate two training methods that <i>might</i> be used to increase Mandarin adults' accuracy in identifying such stops.
<b>M</b>	Subjects <i>were assigned</i> to receive training using a two-alternative forced-choice procedure of a categorical same/different discrimination procedure.

<p><b>R</b></p>	<p>Small but significant increases in the percentage of correct identifications of /t/ and /d/ tokens <i>were obtained</i> for both groups of native Mandarin subjects, although their gains did not differ significantly. These gains were still evident for both groups 2 months after completing the training. <b>Contrary to the hypothesis that identification training promotes more robust long-term memory representations than same/different training, the magnitude of generalization observed for the two groups did not differ significantly.</b> However, subjects <i>seemed</i> to maintain the effects of the same/different training better than the effects of the identification training.</p>
<p><b>C</b></p>	<p>Taken together, <i>the results obtained here challenge the view that</i> identification training is superior to same/different training as a means for training novel phonetic contrasts.</p>

### Text 38

Word count: 121

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This study examines</i> the role that voiced stop spirantization plays in the acquisition of English / b d g/ and /a/ by native Spanish speakers.
<b>R</b>	<i>The results</i> of a data-based experiment <i>show</i> that accuracy in English pronunciation is hindered by native language transfer, including the transfer of spirantization and L1 syllable structure constraints. Furthermore, the suppression of spirantization is not achieved at an equal rate for all voiced stops: /d/ is spirantized the least often.
<b>C</b>	<i>It is proposed</i> that the phonemic value of /a/ in English contributes to this disparity. <i>An examination</i> of the L2 pronunciation of /a/ further <i>reveals</i> that learners do not assign phonemic status to /a/ in all contexts; it is acquired in postvocalic position first and only more gradually acquired elsewhere.



### Text 39

Word count: 177

Sentence count: 8

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This study examined</i> the effects of differing degrees of bilingualism on the nonverbal problem-solving abilities of children in grade 3.
<b>M</b>	Three linguistic groups <i>were compared</i> on problem-solving tasks designed to measure control of attention or analysis of knowledge, processes previously shown to develop differently in monolingual and bilingual children solving linguistic problems (Bialystok, 1988). In this study, an English-speaking monolingual group <i>was compared</i> with a French-English bilingual group and a Bengali-English bilingual group. All of the children in the study were similar except for their language background.

<b>R</b>	<i>Tests</i> of language proficiency <i>confirmed</i> that the French-English subjects were balanced bilinguals and that Bengali-English subjects were partial bilinguals. The balanced French-English bilinguals showed better performance on the non-linguistic tasks requiring control of attention than both the partial bilingual group and the monolingual group. There were no differences <i>found</i> between the groups on the non-linguistic task requiring analysis of representational structures.
<b>C</b>	<i>These results indicate</i> that balanced bilinguals carry over their linguistic advantage in control of attention into non-linguistic domain.

**Text 40**

Word count: 175

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>This study examined</i> differences between adults and children and between normal and poor readers in the use of phonemic coding strategies for storing words in working memory.
<b>M</b>	In the first experiment, adults, 11-year-olds, and 8-year-olds ( <i>categorized</i> as normal or poor readers) recalled eight-item strings of rhyming and nonrhyming words.
<b>R</b>	A developmental decrease in errors <i>was observed</i> for adults, 11-year-olds, and normal-reading 8-year-olds that reflected an improvement in the phonemic coding of items in working memory, but no difference <i>was found</i> between normal- and poor-reading 8-year-olds in the use of phonemic coding strategies. A second experiment with shorter lists and more children supported the latter finding.

<b>C</b>	<i>The results were interpreted as demonstrating that the ability to access syllable-internal phonemic structure is a necessary precursor to the development of phonemic coding strategies for working memory, but that the use of that structure for storing words in working memory is a skill that develops independently and later than the ability to access phonemic structure.</i>
----------	---

# Spanish Phonetics Texts

## Index

1. Poch, M. D. (1984) "Datos acústicos para la caracterización de las oclusivas sordas del español." *Folia Fonética I*: 11-32.
2. Gutiérrez, F. (1984) "Comparación de algunos aspectos de la entonación del catalán y el inglés." *Folia Fonética I*: 33-60.
3. Benoit, J. & Toledo, G. (1984) "Las transiciones y la percepción del punto de articulación en las oclusivas sordas: un estudio sobre el francés." *Folia Fonética I*: 61-80.
4. Widdison, K. (1984) "Hacia los orígenes de la s aspirada en español." *Folia Fonética I*: 103-117.
5. González-Mercadé, M. T. (1984) "Discriminación auditiva de una lengua extranjera: el factor edad." *Folia Fonética I*: 131-143.
6. Figueras, C. & Santiago, M. (1993) "Investigaciones sobre la naturaleza del acento a través del Visi-pitch." *Estudios de Fonética Experimental V*: 21- 45.
7. Figueras, C. & Santiago, M. (1993) "Producción del rasgo acentual mediante síntesis de voz." *Estudios de Fonética Experimental V*: 113-128.

8. Fernández-Planas, A. M. (1993) “Estudio del campo de dispersión de las vocales castellanas.” *Estudios de Fonética Experimental V*: 129-162.
9. Dorta, J. & Herrera, J. (1993) “Experimento sobre la discriminación auditiva de las oclusivas tensas grancanarias.” *Estudios de Fonética Experimental V*: 163-188.
10. Martínez-Celdrán, E. (1993) “La percepción categorial de /b-p/ en español basada en las diferencias de duración.” *Estudios de Fonética Experimental V*: 223-239.
11. Martínez-Melgar, A. (1994) “El vocalismo del andaluz oriental.” *Estudios de Fonética Experimental VI*: 13-64.
12. Toledo, G. (1994) “Rasgos entonativos y tematización en el discurso.” *Estudios de Fonética Experimental VI*: 67-90.
13. Pamies-Bertrán, A. (1994) “Los acentos contiguos en español.” *Estudios de Fonética Experimental VI*: 92-111.
14. Andreu, M. A. & García, M. (1994) “Sobre la relación entre el uso de los fonemas vocálicos y factores acústico-articulatorios: primeros resultados.” *Estudios de Fonética Experimental VI*: 113- 131.
15. Galera, I. (1994) “Pistas acústicas y perceptivas en la distinción de oclusivas en inicio absoluto e intervocálicas en coreano.” *Estudios de Fonética Experimental VI*: 133-152.
16. Toledo, G. & Martínez-Celdrán, E. (1994) “Foco en el español mediterráneo.” *Estudios de Fonética Experimental VI*: 173-185.
17. Andreu, M. A. & García, M. (1994) “Un análisis fonológico y contrastivo

- sobre palabras inventadas.” *Estudios de Fonética Experimental VI*: 221- 258.
18. Núñez-Romero, B. (1995) “La invariación acústica en el punto de articulación de las oclusivas del español.” *Estudios de Fonética Experimental VII*: 25-44.
  19. Rallo, L. & Fernández-Planas, A. M. (1995) “La invariación acústica en las oclusivas del castellano. Estudio perceptivo.” *Estudios de Fonética Experimental VII*: 47-74.
  20. Villalba, X. (1995) “Los invariantes acústicos y el punto de articulación de las oclusivas en español: una revisión de Lahiri, Gewirth y Blumstein (1984).” *Estudios de Fonética Experimental VI*: 77-83.
  21. Martínez-Celdrán, E. & Villalba, X. (1995) “Las ecuaciones de locus y el punto de articulación en español.” *Estudios de Fonética Experimental VII*: 85- 109.
  22. Galera, I., Martínez-Celdrán, E. & Roig, S. (1995) “Determinación del locus de las oclusivas sordas.” *Estudios de Fonética Experimental VII*: 111- 132.
  23. Romero, J. & Fernández-Planas, A. M. (1995) “La invariación acústica en las fricativas del castellano. Estudio perceptivo.” *Estudios de Fonética Experimental VII*: 134- 160.
  24. Sala, L. & Fernández-Plana, A. M. (1995) “La invariación acústica en las nasales del castellano. Estudio perceptivo.” *Estudios de Fonética Experimental VII*: 162-178.

25. Martínez-Celdrán, E. & Rallo, L. (1995) “[ -r]: ¿Dos clases de sonidos?.” *Estudios de Fonética Experimental VII*: 181-194.
26. Martínez-Celdrán, E. (1995) “En torno a las vocales del español.” *Estudios de Fonética Experimental VII*: 196-218.
27. Parmies-Bertrán, A. (1996) “Consideraciones sobre la marca acústica del acento fonológico.” *Estudios de Fonética Experimental VIII*: 13- 28.
28. Dorta, J. & Toledo, G. (1996) “Foco en el español de canarias: dos experimentos.” *Estudios de Fonética Experimental VIII*: 53- 68.
29. Contreras, C. (1996) “Características acústicas de las vocales anteriores del inglés.” *Estudios de Fonética Experimental VIII*: 129- 152.
30. Toledo, G. (1996) “Prominencia melódica y temporal: el caso de la alternancia rítmica.” *Estudios de Fonética Experimental VIII*: 155- 185.
31. Toledo, G. & Martínez-Celdrán, E. (1996) “Preplanificación psicolingüística y entonación en el español mediterráneo.” *Estudios de Fonética Experimental VIII*: 187-196.
32. García, M. & Rodríguez, M. (1997) “Estudio acústico de las consonantes nasales del español.” *Estudios de Fonética Experimental IX*: 39-66.
33. Cortés, M. (1997) “Sobre la percepción y adquisición de la entonación española por parte de hablantes nativos del chino.” *Estudios de Fonética Experimental IX*: 68-134.
34. Planas, S. (1997) “Evaluación del habla de pacientes con parálisis cerebral infantil mediante técnicas de análisis acústico.” *Estudios de Fonética*



*Experimental IX*: 183-192.

35. Toledo, G. (1997) "Prominencia melódica y temporal: la colisión acentual en español." *Estudios de Fonética Experimental IX*: 203-220.
36. Asensi, L., Portolés, S. & Río, A. (1997) "Barra de explosión, VOT y frecuencia de las oclusivas sordas del castellano." *Estudios de Fonética Experimental IX*: 223-242.
37. Rallo, L. (1997) "Speaking rate effects in Catalan and English. A cross-language study." *Estudios de Fonética Experimental IX*: 245-272.
38. Bobadilla, J., Gómez, P. & Bernal, J. (1998) "Obtención de sonogramas con los formantes realzados usando el método de predicción lineal (LPC)." *Estudios de Fonética Experimental X*: 43- 62.
39. Bobadilla, J., Gómez, P. & Bernal, J. (1998) "Estudio de la posición F1, F2 y F3 en situaciones de coarticulación empleando técnicas de predicción lineal." *Estudios de Fonética Experimental X*: 167-183.
40. Bernal, J., Gómez, P. & Bobadilla, J. (1998) "Evolución de los formantes del habla. Resultados obtenidos utilizando algoritmos específicos de tratamiento de señal". *Estudios de Fonética Experimental X*: 271-285.

## Text 1

Word count: 74

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El objetivo de este artículo es realizar una descripción acústica de las oclusivas sordas del español en posición intervocálica.</i>
<b>M</b>	Para ello <i>se ha efectuado</i> el análisis espectrográfico de un corpus de sílabas aisladas realizadas por dos informantes masculinos.
<b>C</b>	Los datos de los espectrogramas <u>nos</u> han permitido caracterizar la duración de la oclusión para cada conoide, definir el VOT en castellano y estudiar la evolución del perfil de los formantes para [p t k].

## Text 2

Word count: 112

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A)</b>	En este artículo <i>se señalan algunos</i> contrastes entonativos del inglés y la relevancia de los mismos a la hora de enseñar la entonación inglesa a estudiantes catalanoparlantes.
<b>M1</b>	<i>Se utiliza</i> un modelo similar al de Halliday (1967: "Intonation and Grammar in British English". The Hague: Mouton) para la descripción de contrastes a nivel léxico, sintaxis, discurso y estructuración de la información.
<b>R</b>	Los contrastes entonativos descritos para el inglés <i>pueden</i> realizarse en catalán mediante la entonación, el modo verbal, el orden de palabras, o la utilización de elementos léxicos.
<b>M2</b>	Para hacer más explícito el exponente entonativo de los <i>mencionados</i> contrastes, <i>la mayor parte</i> de los ejemplos <i>utilizados se presentan</i> en pares mínimos potencialmente ambiguos.

### Text 3

Word count: 163

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El fin de este estudio fue</i> determinar si existe complementariedad entre las pistas acústicas de las oclusivas sordas del francés, esto es, entre las transiciones de la vocal precedente, el ruido de explosión y las transiciones de la vocal siguiente; además determinar si se produce predominancia de una pista.
<b>M</b>	Para tal fin <i>se registraron</i> segmentos silábicos que contenían una oclusiva sorda precedida y seguida de la misma vocal. Por medio del corte y del empalme de la <del>señal</del> <i>señal</i> acústica <i>se obtuvieron</i> estímulos constituidos por dos pistas acústicas pertenecientes a un tipo de oclusiva, y una tercera pista de una oclusiva con otro punto de articulación. Además, <i>se suprimió</i> la segunda sílaba de cada segmento para observar la importancia de las transiciones de la vocal precedente. <i>Se obtuvieron</i> juicios de identificación de un panel de 14 sujetos de lengua francesa.

<b>C</b>	<i>Los resultados de los tests de percepción mostraron una complementariedad entre las pistas acústicas, aunque en ciertos contextos hubo predominancia de una pista única.</i>
----------	---

#### Text 4

Word count: 164

Sentence count: 7

Paragraph count: 2

<b>I (M3-S1B)</b>	En este estudio <i>se examinan</i> los principios fonéticos que dieron lugar a la <u>s</u> aspirada en español.
<b>R</b>	<i>Es probable</i> que el cambio $s > h$ <i>se deba</i> a ciertas limitaciones auditivas del oyente al analizar una se <sup>ñ</sup> al acústica equívoca. <i>Se propone</i> que la aspiración empezó por una percepción errónea, a medida que las coarticulaciones borrraban la distintividad de la [s], creando la impresión auditiva de un sonido semejante a la [h].
<b>I (M1-S2)</b>	<i>Muchos</i> de los rasgos auditivos primarios de la [s] se atenúan bajo las condiciones fonéticas que favorecen a la aspiración de la <u>s</u> . Además, las transiciones vocálicas ante [s] muestran los efectos de un murmullo glótico, lo cual imita en gran manera la [h] post-vocálica. <i>Se formuló</i> la hipótesis de que el tramo vocálico producido con murmullo <i>podría interpretarse</i> como una aspiración intencional si los rasgos primarios de la [s] <i>se eliminaran</i> .

<b>C</b>	<i>Los resultados de tres experimentos perceptivos refuerzan la hipótesis y dan mayor credibilidad a la explicación propuesta para este cambio histórico.</i>
----------	---

## Text 5

Word count: 71

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El objetivo de <u>mi</u> trabajo ha sido observar cómo influye la edad en la discriminación auditiva de los sonidos en una lengua extranjera.</i>
<b>M</b>	Para ello <u>he</u> realizado un estudio con ciento veinte escolares de edades comprendidas entre los seis y los catorce años.
<b>C</b>	<i>Los resultados de la investigación muestran que las habilidades auditivo-perceptivas para recibir contrastes fonémicos de una lengua extranjera se desarrollan en función de la maduración del sujeto.</i>



## Text 6

Word count: 61

Sentence count: 2

Paragraph count: 1

<b>I (M3-S1A)</b> + <b>M</b>	<i>Este artículo tiene un doble objetivo:</i> en primer lugar, determinar los valores acústicos del rasgo acentual en español, a partir de los datos <i>obtenidos</i> de analizar pares de términos que se diferencian sólo por la posición del acento. Una vez hecho esto, <i>pretendemos</i> comprobar hasta qué punto es cierto que uno de los dos integrantes de los compuestos pierde el acento.
------------------------------------	---

**Text 7**

Word count: 54

Sentence count: 1

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	En este artículo <i>se describe</i> un método de síntesis del rasgo acentual en un sintetizador de voz PCF 8200 de Philips,
<b>C</b>	y <i>se demuestra</i> que los valores aportados por el análisis de la voz no siempre se corresponden con los que es necesario introducir en un sintetizador para que los hablantes conozcan ese rasgo.

## Text 8

Word count: 75

Sentence count: 2

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<i>Este artículo estudia</i> el campo de dispersión de las cinco vocales castellanas <i>creadas</i> mediante síntesis de voz desde el punto de vista de la percepción.
<b>C</b>	<i>Los resultados muestran</i> principalmente que el ámbito perceptivo (que guarda una estrecha relación con la atención prestada por el oyente) es mayor que el productivo y que las frecuencias de F1 y de F2 con mayores índices de identificación son más altas que las establecidas en estudios de fonética acústica.

## Text 9

Word count: 70

Sentence count: 2

Paragraph count: 1

<b>I (M1-S2)</b>	El español de Gran Canaria (Islas Canarias) se caracteriza por la presencia de consonantes oclusivas tensas [b:, d:, y:, g:], cuando precede el segmento /-s/.
<b>I (M3-S1B)</b>	El experimento <i>realizado</i> consistió en comprobar si, a pesar de la ausencia fonética de tal segmento, los oyentes grancanarios lo identificaban en secuencias <i>manipuladas</i> y <i>aisladas</i> de todo contexto, en las que /b, d, y, g/ se caracterizaban por una oclusión y una mayor duración.

## Text 10

Word count: 143

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El objetivo de este estudio era comprobar si en español la duración del silencio de las oclusivas labiales era una pista suficiente para distinguir /b/ y /p/ y, además, si sucedía de forma categorial, como ocurrió en inglés.</i>
<b>M</b>	<i>Se han realizado dos tests: uno de discriminación y otro de identificación. Se han utilizado 23 estímulos sintéticos para conseguir realizaciones de las palabras: <u>cava</u>, <u>capa</u> y <u>cappa</u>. Las duraciones del silencio iban desde 26,4 ms hasta 220 ms en intervalos de 8,8 ms.</i>
<b>C</b>	<i>Los resultados demuestran que, a pesar de las diferencias de ambas lenguas, la duración del silencio es una pista suficiente para distinguir estas categorías y que existe la percepción categorial basada en esa misma pista. Además, como sucedió en inglés, hay una tercera categoría que sin ser fonológica también se percibe correctamente y que posee una duración muy larga. /pp/.</i>

## Text 11

Word count: 228

Sentence count: 11

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	En la tesis titulada “El sistema vocálico del andaluz oriental” <u>he</u> llevado a cabo un estudio, como dice el título, sobre las vocales del andaluz,
<b>I (M1-S1)</b>	tema que durante muchos años ha despertado gran interés entre los lingüistas.
<b>I (M3-S1B)<sub>2</sub></b>	Trata concretamente sobre la revisión del sistema nominal y el funcionamiento de los plurales. <u>He</u> centrado el tema en el fonema /s/ en posición de final de palabra (aspirada en el primer momento y posteriormente perdida).
<b>I (M1-S2)</b>	Este fenómeno conlleva un cambio en el timbre de la última vocal, que <i>puede</i> ser transmitido al resto de las vocales de la palabra.

<p><b>M</b></p>	<p>Los datos para este estudio los <u>recogí</u> durante el verano de 1987. <u>Gravé</u> una cinta de ocho horas y quince minutos de duración en <i>varios</i> pueblos situados en Jaén, granada y Almería. El número total de informantes fue de noventa y uno. Todos estos datos <i>se analizaron</i> con los instrumentos del Laboratorio de Fonética de la Facultad de Filología de Barcelona. <i>Se obtuvieron</i> un total de 19.930 datos, que a continuación <i>fueron analizados</i> estadísticamente.</p>
<p><b>C</b></p>	<p>Como conclusión <i>se puede</i> afirmar que, por un lado, en andaluz oriental las vocales de los plurales poseen armonía vocálica, incluso cuando dos vocales aparecen en posición media; sin embargo /i/ y /u/ en posición tónica o final no cumplen esta regla. Por otro lado, el sistema consonántico del andaluz posee un gran número de rasgos peculiares.</p>

## Text 12

Word count: 140

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>Este estudio exploró</i> las diferencias entonativas en el interior de las cláusulas extraídas de tres discursos semiespontáneos emitidos por informantes de español, dialecto de la Argentina.
<b>M</b>	El material <i>se obtuvo</i> en una sesión experimental que consistió en un mensaje de los tres informantes al experimentador, sobre un grupo de naipes descubiertos; el mensaje no fue cara a cara. Las cláusulas <i>seleccionadas fueron analizadas</i> teniendo en cuenta las diferencias en el proceso de tematización versus el rema y el foco. Los materiales de habla recibieron un tratamiento acústico con el fin de extraer curvas de entonación (F0), por medio del programa FPRD. <i>Se construyeron</i> grillas tonales para determinar diferencias de prominencia y, con ellas, <i>se indicaron</i> rasgos fonológicos.
<b>C</b>	<i>Los resultados mostraron</i> fronteras entre tema y rema, además, grados de focalización debido al contraste informativo y a la decisión ilocutiva del hablante.



### Text 13

Word count: 126

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	<i>El presente trabajo, extraído de una tesis doctoral sobre el ritmo en el lenguaje, examina desde el punto de vista acústico y fonológico la posibilidad de que,</i>
<b>I (M2-S1D)</b>	como ya se <del>h</del> alaban desde hace más de un siglo algunos tratados de métrica,
<b>I (M3-S1B)<sub>2</sub></b>	un acento <i>resulte</i> anulado por el acento vecino en caso de contigüidad. El fragmento aquí <i>expuesto</i> trata sólo esta cuestión en espa <del>ñ</del> ol,
<b>I (M1-S1)</b>	aunque <i>la tesis estudia</i> también (con la misma metodología) este problema en francés, inglés, portugués, italiano, catalán y ruso, donde esta polémica también aparece en la literatura sobre el tema.
<b>R</b>	<i>Se concluye</i> que existe un indudable debilitamiento acústico de uno de ellos,
<b>C</b>	interpretable fonológicamente como una neutralización de la oposición [+acento] causada por el contexto, semejante a la neutralización de los tonos en chino.

## Text 14

Word count: 198

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)</b>	En español <i>se ha procedido</i> a comprobar la posible existencia de una relación estadísticamente significativa entre el primer y segundo formante y los movimientos verticales del cartílago tiroides durante la articulación de fonemas vocálicos, con la frecuencia con que éstos se presentan en fragmentos de novela y teatro.
-------------------	--

<p><b>R</b></p>	<p><i>El primer y segundo formante muestran relaciones estadísticamente significativas con la frecuencia de uso de los fonemas vocálicos, según el modelo de regresión lineal simple. El primer formante predice con notable precisión la frecuencia /i,o,a/, sin embargo para /e/ los valores esperados son menores a los observados, al revés que para /u/. En cuanto al segundo formante, la frecuencia esperada de los fonemas cerrados - /i,u/- es superior a la observada, mientras sucede lo contrario con /e,a,o/. Para los grados de libertad de los cálculos realizados en la regresión lineal simple, no hemos podido demostrar la existencia de relaciones estadísticamente significativas entre los desplazamientos del cartílago tiroides y la frecuencia de uso de los fonemas vocálicos. No obstante se ha comprobado que existe una relación entre el movimiento vertical del cartílago al pronunciar el fonema vocálico, con el primer y segundo formante.</i></p>
-----------------	--

## Text 15

Word count: 297

Sentence count: 6

Paragraph count: 1

<b>I (M1-S2)</b>	En lengua coreana existe una oposición fonológica entre tres tipos de oclusivas.
<b>I (M3-S1A)</b>	<i>Este trabajo pretende</i> estudiar los distintos parámetros acústicos que permiten la diferenciación de las tres series de oclusivas distintivas, y que son, en el habla standard de Seúl: Serie 1: sorda, ligeramente aspirada y laxa; presenta alófonos sonoros entre segmentos sonoros, típicamente en posición intervocálica; serie 2: sorda, no aspirada y tensa; serie 3: sorda, muy aspirada y tensa. Estas características diferencian nueve fonemas consonánticos.

<p><b>M</b></p>	<p>He partido de un corpus de datos <i>recogidos</i> de hablantes nativos de lengua coreana, a los que <u>hemos</u> sometidos posteriormente a una serie de tests de percepción (<i>descritos</i> con detalle en el apartado 2.2). Los tests <i>se han realizado</i> con el propósito de averiguar si es la tensión (como se dice en Kim 1965) o el VOT (como <i>se sugiere</i> en Lisker y Abramson, 1964) lo que permite la discriminación de los tres tipos de oclusivas.</p>
<p><b>C</b></p>	<p><b>Los resultados sugieren a) que el VOT no es una pista absoluta</b>, ya que los hablantes no diferencian las series laxas de las tensas por este parámetro, aunque sí distinguen entre las series 2 (tensa no aspirada) y 3 (tensa aspirada); y b) que la tensión, manifestada en distintos parámetros acústicos (duración de la vocal anterior, intensidad de la vocal siguiente, duración del silencio intervocálico) es el rasgo crucial en la discriminación de los distintos tipos de oclusivas en coreano.</p>

## Text 16

Word count: 304

Sentence count: 14

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El motivo de este trabajo fue el estudio del foco lingüístico manifestado en la encodificación acústica: tonal, temporal y en la intensidad.</i>
-------------------	---

<p><b>M</b></p>	<p>Para tal fin <i>se analizaron</i> las emisiones de siete hablantes masculinos pertenecientes al español peninsular mediterráneo. La tarea de los hablantes consistió en la lectura de oraciones con un contexto interrogativo previo que <i>influiría</i> en la elección de la prominencia de los items. Esto significó que las oraciones fueron similares en la estructura profunda pero disímiles en la superficie debido a la elección del hablante en cuanto a la focalización. <i>Se diseñaron</i> dos experimentos de producción. En el primero, el contexto <i>debería</i> guiar al hablante a emisiones neutras (todo nuevo), de foco ancho y de foco estrecho. En el segundo experimento, de acuerdo a la influencia del contexto, <i>se intentaría</i> variar la elección del hablante a emisiones de foco neutro, de foco simple (en la primera posición de la emisión), de foco simple (en la última posición de la emisión), de foco dual (en la primera y en la última posición de la emisión). El estudio de los rasgos acústicos <i>se realizó</i> por medio de un análisis digital.</p>
<p><b>R</b></p>	<p><i>Los resultados no indicaron</i> diferencias significativas en los items focalizados comparados con los no focalizados. Tampoco hubo diferencias entre el foco neutro, el foco ancho y el foco estrecho; del mismo modo, no hubo diferencias entre el foco neutro, el foco simple y el foco dual.</p>

C	Los hallazgos coincidieron con los resultados experimentales <i>obtenidos</i> por medio de corpora emitidos por hablantes del español canario y por hablantes del español de Panamá. No hubo coincidencia con lo hallado en otras lenguas en que <i>se indicó</i> una mayor prominencia en la zona de focalización. Estos resultados experimentales <i>se observaron</i> en lenguas romances, por ejemplo: el francés, y en lenguas germánicas.
---	---



## Text 17

Word count: 275

Sentence count: 10

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<i>Se ha procedido</i> a contrastar las frecuencias de aparición de los fonemas vocálicos tal como se encuentran en diversos fragmentos escogidos al azar de textos escritos correspondientes a novela y teatro en lengua española, con la frecuencia de los mismos fonemas presentes en palabras inventadas por una serie de sujetos castellano-parlantes.
------------------------------------	---

<p><b>R</b></p>	<p>En las palabras inventadas <i>se aprecia</i> la falta de diferencias estadísticamente significativas entre la frecuencia de los fonemas palatales /i,e/, centrales /a/, y velares /o,u/. No obstante esta ausencia de diferencias implica que considerados por separado los cinco fonemas, <i>se distingue</i> una mayor frecuencia del fonema central /a/. En los fragmentos de textos existen diferencias significativas. Los fonemas palatales se presentan con mayor frecuencia que los centrales y velares. Entre éstos dos últimos no se manifiestan diferencias estadísticas. /a/ y /e/, con frecuencias similares, destacan por sus alta periodicidad en comparación con /i,o,u/. Al contrastar por separado la frecuencia de los fonemas pertenecientes a los fragmentos textuales con las palabras inventadas, <i>se observa</i> que se produce en el segundo caso un fuerte descenso del fonema /e/ que repercute en un incremento en el resto de los fonemas. <i>Se advierte</i> en las palabras inventadas una tendencia a utilizar /a/ más que en los textos. La búsqueda mental de un cierto contraste con dicho fonema causa que el inventor rechace /e/ por su similitud con /a/ y que incremente de manera lógica la frecuencia con que los fonemas /i,o,u/ se presentan en los textos. El resultado es que en las palabras inventadas <i>se muestra una tendencia</i> a la centralización, a la vez que <i>se aprecia</i> la huella de las pautas frecuenciales de /i,o,u/ .</p>
-----------------	--

## Text 18

Word count: 271

Sentence count: 11

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El objetivo de este trabajo es comprobar si, para cada punto de articulación de las consonantes oclusivas castellanas, el espectro <i>muestreado</i> de corta duración a partir del comienzo de la explosión presenta propiedades acústicas invariantes.</i>
<b>I (M1-S3)<sub>1</sub></b>	S. E. Blumstein y K. N. Stevens llevaron a cabo esta teoría para la lengua inglesa con un resultado positivo.
<b>I (M2-S1B)</b>	Pero una de las pretensiones de su teoría es que esto mismo se va a encontrar en todas las lenguas.
<b>I (M1-S3)<sub>2</sub></b>	Los investigadores americanos defienden que los espectros de las oclusivas se adaptan a tres tipos diferentes de plantillas: difusa-ascendente para las alveolares (dentales en nuestra lengua), difusa-ascendente para las labiales y compacta para las velares.

<p><b>I (M3-S1B)</b></p> <p>+</p> <p><b>R</b></p>	<p>En este trabajo <i>se han realizado</i> de una forma sistemática los mismos experimentos llevados a cabo por S.E. Blumstein y K. N. Stevens y <i>se ha comprobado que los resultados que éstos obtuvieron para la lengua inglesa no se cumplen en la lengua castellana</i>, excepto para las consonantes velares, que se ajustan perfectamente a la plantilla establecida -compacta-, alcanzando el 100% de efectividad. Sin embargo tan sólo el 48% de las labiales se ajusta exclusivamente a la plantilla difusa-descendente (si <i>se estudian</i> las primeras 26 m.s. en el espectro). Si <i>se estudian</i> las primeras 10 m.s., tan sólo se ajusta el 31,5%. Con las dentales ocurre algo similar. Si <i>se estudian</i> las primeras 26 m.s., se adapta exclusivamente al patrón difuso-ascendente sólo el 26,5% de las dentales. Si <i>se analizan</i> las primeras 10 m.s. el resultado es del 40%.</p>
<p><b>C</b></p>	<p>Por tanto ni las consonantes labiales ni las dentales alcanzan el 85% <i>esperado</i> de adaptación a las plantillas <i>ideadas</i> para ellas.</p>

## Text 19

Word count: 132

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1A)</b>	En este artículo <u>hemos pretendido</u> averiguar si breves estímulos CV proporcionan suficientes índices acústicos para la correcta identificación del punto de articulación en las oclusivas sordas del castellano.
<b>M</b>	Con este objetivo, <u>sintetizamos</u> una serie de sílabas de corta duración que <i> fueron </i> posteriormente <i>manipuladas</i> , eliminando transiciones y/o explosión, para así poder valorar el grado de influencia que estos parámetros ejercen en la percepción. Estos estímulos <i>fueron presentados</i> a oyentes en forma de tests perceptivos.
<b>C</b>	Los resultados <i>obtenidos</i> , aunque no tan esperanzadores como los de Blumstein & Stevens (1980) para el inglés, <u>nos</u> permiten, sin embargo, corroborar la validez de la hipótesis inicial, es decir, que estímulos de muy corta duración bastan a los oyentes a la hora de decidir entre [p], [t] o [k] además de identificar con facilidad la vocal siguiente.

## Text 20

Word count: 110

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1A)</b> + <b>(M1-S3)</b> + <b>(M2-S1C)</b>	<i>El principal objetivo de este artículo es estudiar si el invariante acústico propuesto por Lahiri, Gwirth y Blumstein (1984) para distinguir el punto de articulación de las consonantes oclusivas se puede extender al español.</i>
<b>I (M1-S1)</b>	Ello <i>daría</i> más base empírica a la hipótesis que afirma la existencia de tales invariantes universales.
<b>I (M3-S1B)</b>	Para determinarlo <i>se ha reproducido</i> de la manera más fiel posible el experimento de Lahiri, Gwirth y Blumstein (1984) con datos del español.
<b>C</b>	<i>Desafortunadamente, los resultados no confirmaron</i> la propuesta.
<b>R</b>	La clasificación fue correcta tan sólo para un 56% de los estímulos (frente al 91,5% del estudio original). Únicamente la [p] presentó un grado de clasificación aceptable (el 84%).

## Text 21

Word count: 184

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>Este artículo explora</i> las posibilidades que ofrecen las ecuaciones de locus para la clasificación de las consonantes oclusivas en función de su punto de articulación.
<b>I (M1-S2)</b>	Las ecuaciones de locus, diseñadas originalmente por Lindblom (1963), son funciones lineales obtenidas a partir de la regresión entre dos valores del F2 de la vocal postconsonántica: los valores de F2 del primer pulso glotal y los valores de F2 del centro del formante.

<b>M</b> <b>+</b> <b>R</b>	<p><i>Los resultados</i> de un experimento con diez informantes (cinco hombres y cinco mujeres), que produjeron una serie de estímulos con [p]-[b], [t]-[d], [k]-[g] para cada una de las cinco vocales del español, <i>mostraron</i> que a pesar de la existencia de diferencias individuales y de coarticulación cada punto de articulación (labial, dento-alveolar y velar) presenta una ecuación de locus claramente definida que lo identifica. Un análisis discriminativo posterior confirmó este hecho: usando bien la pendiente y la intersección con la “y” juntas o la pendiente sola, <i>se obtuvo</i> una clasificación del 100%.</p>
<b>C</b>	<p><i>Parece</i> que existe pues por encima de la variación intrínseca al habla <i>unos</i> invariantes acústicos que <i>darían</i> cuenta del hecho comunicativo.</p>



## Text 22

Word count: 207

Sentence count: 8

Paragraph count: 1

<b>I (M1-S3)</b>	En 1955, un artículo de Delattre, Liberman y Cooper <i>proponía</i> la existencia de un punto acústico que <i>permitiría</i> categorizar el punto de articulación a partir de las transiciones de la vocal siguiente de una secuencia VCV. Este punto fue denominado “locus”. Estudios posteriores realizados por Lehiste y Peterson (1961), Fant (1973), Port (1982), etc. para confirmar la existencia del locus, llegaron a la conclusión de que no podía afirmarse que este punto existiera realmente.
<b>C1</b>	<u>Hemos</u> podido comprobar empíricamente que el locus es una intersección de los valores de F2 de las vocales de una secuencia VCV.
<b>R1</b>	Los valores <i>se aproximan</i> mediante polinomios de grados 3 y 2 poniendo en función el tiempo y la frecuencia.

<b>M</b>	<i>Se han analizado 609 muestras pertenecientes a 10 hablantes (6 hombres y 4 mujeres), que produjeron combinaciones VCV en todos los contextos vocálicos del castellano. Hemos establecido tres intervalos según el punto de articulación: bilabial: de 0 a 1000 Hz, velar-palatal: de 2001 a 3500.</i>
<b>R2</b>	Los resultados <i>obtenidos</i> de predicciones correctas son los siguientes: bilabial: 81%, dentoalveolar: 72%, velar: 82%.
<b>C2</b>	<b>Esto es suficiente para considerar la existencia del locus, tal como lo concibieron Delattre et al. (1955), y para sugerir que las ecuaciones polinómicas pueden ser capaces de ilustrar invariación acústica.</b>

### Text 23

Word count: 100

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>El presente trabajo estudia a través de dos experimentos si se puede considerar la amplitud como índice acústico invariante en las fricativas del castellano.</i>
<b>M</b>	El método que ha servido de base para llevar a cabo distintas manipulaciones con los estímulos ha consistido en intercambiar la amplitud de [s] y [x] por la de [f] y [g] y viceversa.
<b>C</b>	<i>Los resultados obtenidos en tests perceptivos constituidos tanto por las sílabas manipuladas como por los ruidos de fricación aisladas han demostrado que la amplitud por sí sola no puede ser considerada un índice suficiente para el reconocimiento de las fricativas del castellano.</i>

## Text 24

Word count: 166

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El objetivo de este estudio consiste en analizar el papel que desempeñan el murmullo y las transiciones vocálicas en la percepción de las consonantes nasales castellanas a partir de secuencias de habla natural.</i>
<b>M</b>	Los estímulos <i>incluidos</i> en el test de percepción representan diferentes ventanas (cinco en total) de distinta duración y composición a partir de la determinación del punto de discontinuidad de onda en el oscilograma entre la consonante y la vocal que integran cada secuencia.
<b>I (M3-S1B)</b>	También <i>se ha estudiado</i> la percepción del timbre vocálico en cada uno de los estímulos del test. Dado el carácter especial de la nasal palatal, en los resultados <i>obtenidos</i> <u>hemos</u> realizado un segundo experimento para <i>intentar</i> determinar si [...] <i>parece</i> comportarse como un segmento simple o como un segmento complejo.

C	En suma, la condición mixta, salvo en la nasal palatal, es la que proporciona mejores resultados, con lo cual <u>podemos pensar</u> que los índices invariantes hay que buscarlos <u>probablemente</u> en el seno de la sílaba antes que en los elementos aislados.
---	---

## Text 25

Word count: 160

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	La presentación en el IPA de los sonidos [•] y [r] en dos modos de articulación diferentes llamados “tap” y “trill”, respectivamente,
<b>I (M2-S1A)</b>	contrasta con el hecho evidente de un comportamiento homogéneo desde un punto de vista fonológico, que lleva a creer en un parentesco fonético; es decir, <b><i>creemos que no poseen dos modos diferenciados y que constituyen una sola clase.</i></b>
<b>I (M1-S3)</b>	Existen argumentos encontrados entre <i>algunas</i> posiciones articulatorias contra le idea de ese alto parentesco fonético entre ellos (Catford, 1977) y posiciones acústicas que defienden lo contrario (Lindau, 1985).
<b>C</b>	En nuestro estudio, <u>hemos</u> encontrado evidencias a favor de la posición acústica,
<b>M</b>	al <u>basarnos</u> en tests perceptivos después de haber manipulado [•] para convertirla en [r] y viceversa.

<b>R</b>	Un 94.37% de las respuestas aceptan como buenos los sonidos surgidos de las manipulaciones. También <u>hemos</u> comprobado que estos sonidos consisten <i>fundamentalmente</i> en breves oclusiones de 20,08 ms y 15,78 ms respectivamente y que implica una bajada de amplitud de 9 y 7 Db, respectivamente.
----------	--

## Text 26

Word count: 153

Sentence count: 4

Paragraph count: 2

<b>I (M3-S1B)</b>	Con este estudio <i>se pretendía</i> realizar un análisis de los formantes vocálicos masculinos y femeninos para obtener unos valores que <i>servieran</i> de límites entre las distintas clases vocálicas y, así, que pudieran <i>ser utilizados</i> en el Reconocimiento Automático de las Vocales mediante la asociación de cualquier dato que <i>cayera</i> dentro de los límites establecidos con rasgos fónicos.
<b>C</b>	<u>Hemos</u> conseguido demostrar que bastan los dos primeros formantes para caracterizar cualquiera de las cinco vocales españolas, que el F1 sirve para determinar los rasgos alto-medio-bajo, que el F2 está implicado en la identificación de los rasgos anterior-central-posterior. <u>Hemos</u> obtenido dos fórmulas que relacionan de forma sistemática los formantes masculinos y los femeninos. <u>Hemos</u> conseguido los límites que hay que utilizar en las reglas y, por último, <u>hemos</u> confeccionado un programa de reconocimiento y <u>hemos</u> verificado que reconoce por encima del 90% las vocales presentadas en palabras diversas y por hablantes diferentes.



## Text 27

Word count: 148

Sentence count: 5

Paragraph count: 3

<p><b>I (M3-S1B)</b> + <b>M</b></p>	<p>Este trabajo <i>se basa</i> en los datos <i>obtenidos</i> tras el análisis acústico computerizado de un corpus de 57 modelos de enunciado en 7 lenguas (francés, español, catalán, portugués, italiano, inglés, ruso), que, multiplicados por el número de hablantes nativos, se convierte en 224 enunciados, que contienen un total de 2572 sílabas (de las cuales 847 son tónicas). <i>Se midió</i> la duración, la intensidad y el tono de cada vocal, obteniendo 7716 datos absolutos en milisegundos, decibelios y hertzios (véase Pamies, 1994).</p>
<p><b>I (M3-S1A)</b></p>	<p><u>Presentamos</u> aquí dos de los objetivos de esta investigación:</p> <ol style="list-style-type: none"><li>1) contrastar de forma cuantificable las hipótesis comunes en la literatura con <u>nuestros</u> datos acerca del papel de estos parámetros en la producción del acento fonológico;</li><li>2) evaluar una serie de criterios para verificar la <i>posible</i> interacción entre los distintos suprasegmentales, incluidos unos coeficientes que <i>pueden</i> variar según la lengua y la posición del acento en el enunciado.</li></ol>

## Text 28

Word count: 188

Sentence count: 10

Paragraph count: 1

<p><b>I (M3-S1B)</b> + <b>M</b></p>	<p>En esta investigación <i>se estudió</i> el foco lingüístico por medio de un análisis acústico <i>realizado</i> en dos experimentos de producción. En un primer experimento <i>se analizaron</i> emisiones con foco neutral (todo nuevo), con foco ancho (algunos ítems focalizados) y con foco estrecho (un ítem focalizado). La lectura de las emisiones estuvo precedida por contextos interrogativos previos que <i>influirían</i> en el tipo de foco elegido. En un segundo experimento, similar al primero, <i>se estudiaron</i> emisiones con foco neutral, con foco simple (en la primera y en la última posición). <i>Se analizó</i> la prominencia encodificada en el F0, en la duración y en la intensidad. Para tal fin, <i>se realizaron</i> contornos de entonación, espectrogramas, y <i>se calcularon</i> valores de intensidad.</p>
---	--

<b>R</b>	<i>Los resultados no confirmaron</i> los hallazgos obtenidos en otras lenguas romances (v. gr., el francés), en las cuales <i>se indicó</i> un mayor grado de prominencia en las palabras focalizadas. Opuestamente, <i>los datos estadísticos no mostraron</i> diferencias entre las palabras focalizadas, tampoco entre las emisiones neutrales y los focos más localizados.
<b>C</b>	<i>Los resultados</i> en este dialecto <i>sugirieron</i> que las estrategias de focalización <i>estarían</i> libres del contexto y <i>actuarían</i> en forma impredecible.

**Text 29**

Word count: 170

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>El presente estudio muestra</i> una revisión de los valores representativos de las características acústicas de dos sonidos pertenecientes al sistema vocálico del inglés, a saber /i:/ /i/.
<b>M</b>	Dicha revisión <i>se realizó</i> con la colaboración de cuatro informantes hablantes nativos de la lengua inglesa y seis aprendices de inglés como lengua extranjera en Venezuela. Estos diez informantes proporcionaron una muestra de habla que <i>fue analizada</i> en el Lab. de Fonética de la Univ. de los Andes.

<b>C</b>	<p><i>Dicho análisis proporcionó</i> valores relacionados con los tres primeros formantes de cada vocal, así como los valores de duración e intensidad de cada sonido. Asimismo <i>permitió</i> determinar aspectos relacionados con: 1. - Los elementos físicos responsables de la calidad de cada sonido estudiado. 2. - Las diferencias y semejanzas entre los valores dados a conocer en la literatura tradicional del área y los valores aquí <i>obtenidos</i>. 3. - La existencia o ausencia de transferencias de rasgos acústicos típicos de la lengua española, por parte de los aprendices hispanohablantes, en la producción de sonidos pertenecientes al sistema vocálico inglés.</p>
----------	--

### Text 30

Word count: 99

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>Se estudió</i> la alternancia silábica, la prominencia: [+fuerte] versus [+débil] versus [+fuerte], en el interior de la palabra léxica y fonológica, esto es, en la sucesión sintagmática de acento no primario, sílaba preacentual, acento primario.
<b>M</b>	Los corpora estuvieron integrados por textos leídos (Colombia), oraciones (Panamá), habla semiespontánea (Argentina) y habla espontánea (Venezuela). <i>Se realizó</i> un análisis melódico y temporal de la sucesión silábica medida en datos digitales de F0 y de duración.
<b>R</b>	<i>Los hallazgos no confirmaron</i> el efecto de alternancia rítmica: hubo prominencias adyacentes de un grado similar.
<b>C</b>	Se reiteraron otros resultados <i>encontrados</i> en el español canario e hispanoamericano.

### Text 31

Word count: 124

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)1</b> + <b>M</b>	<i>Se estudió</i> el modelo global, esto es: la preplanificación mental de la entonación, en dos experimentos de producción <i>realizados</i> sobre materiales lingüísticos emitidos por hablantes de español, pertenecientes a la zona del Mediterráneo. En el primero <i>se analizó</i> la correlación entre la altura del primer pico, el efecto P1, y el incremento de la duración en las oraciones.
<b>C1</b>	<i>Los resultados indicaron</i> que el efecto de preplanificación es irrelevante.
<b>I (M3-S1B)2</b>	En un segundo experimento <i>se llevó a cabo</i> un estudio de las fronteras sintácticas en cláusulas opuestas para determinar diferencias tonales y efectos de preplanificación subordinados a la sintaxis.
<b>C2</b>	Los hablantes no confirmaron el efecto.
<b>C3</b>	<i>Los resultados generales sugirieron</i> que los patrones locales, no un preprograma global, <i>podría</i> explicar mejor el comportamiento mental de los hablantes.

### Text 32

Word count: 161

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>Esta investigación tiene como objetivo</i> la descripción acústica de las consonantes nasales en contacto con las vocales, utilizando <i>varias</i> técnicas conocidas.
<b>M</b>	<i>Se utilizó</i> un corpus conformado por una muestra de 18 informantes (9 hombres y 9 mujeres), quienes leyeron un texto en el que aparecen 15 oraciones con las 15 combinaciones intervocálicas con la misma vocal en ambos lados. En un caso, los datos <i>obtenidos</i> fueron: frecuencia de los formantes, ancho de banda, y duración. En otros enfoques para la distinción de la nasal bilabial [m] de la nasal alveolar [n], <i>se aplicó</i> la propuesta de Stevens y Blumstein (1979) basada en la tipología del espectro LPC y la propuesta de Kurowski y Blumstein (1987) que se centra en la energía relativa en diferentes rangos de frecuencia.
<b>C</b>	<i>Los resultados arrojan una clara</i> clasificación de la nasal palatal [...] en base a la transición de los formantes; en cambio, <b>de las técnicas revisadas, ninguna permite distinguir consistentemente una nasal bilabial de una alveolar.</b>



### Text 33

Word count: 248

Sentence count: 5

Paragraph count: 4

<b>I (M1-S2)</b>	Aun siendo la entonación uno de los componentes <i>esenciales</i> de la comunicación oral, y aun siendo uno de los más <i>difíciles</i> de adquirir en una lengua extranjera,
<b>I (M2-S1B)</b>	hoy por hoy sigue siendo, paradójicamente, <b>uno de los más desatendidos</b> en la enseñanza del español como lengua extranjera.
<b>I (M3-S1B)</b>	En esta investigación <u>nos centramos</u> en el caso concreto de los aprendices chinos de E/LE. <u>Estudiamos</u> cuatro tipos de enunciados: declarativos, enfáticos, preguntas pronominales y preguntas absolutas.
<b>M</b>	<u>Llevamos</u> a cabo tres experimentos paralelos, con un total de 129 sujetos: 84 hablantes nativos de chino mandarín (que <u>clasificamos</u> en 5 niveles de E/LE: cero, principiante, intermedio, avanzado y cuasi-nativo) y 45 hablantes nativos de castellano y/o catalán (nivel cero de chino).

<p><b>C</b></p>	<p>De los resultados de los tres experimentos <i>se desprende</i> que:</p> <p>a) la interpretación de la entonación española presenta el mismo grado de dificultad a un hablante nativo del chino mandarín que la interpretación de la entonación china a un hablante nativo de castellano o de catalán, si bien las áreas de dificultad difieren <i>sensiblemente</i> entre una y otra lengua;</p> <p>b) <i>podemos conjeturar</i> para los hablantes nativos de chino mandarín el siguiente orden de adquisición de la entonación española en el plano perceptivo:</p> <p>1p- la entonación de los enunciados declarativos (en el nivel intermedio),</p> <p>2p- la entonación de las preguntas pronominales (en el nivel intermedio),</p> <p>3p- la entonación de las preguntas absolutas (en el nivel avanzado),</p> <p>4p- la entonación de los enunciados enfáticos (en el nivel cuasi-nativo).</p>
-----------------	--

### Text 34

Word count: 80

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b>	En este artículo <i>se analizan</i> los trastornos del control motor del habla (disartria) de dos niños con Parálisis Cerebral Infantil (PCI).
<b>I (M1-S2)</b>	En las patologías motoras se encuentran afectadas la movilidad y la coordinación de los órganos articuladores del tracto vocal y la fonación. Mediante el análisis acústico <i>es posible</i> constatar el tipo de trastorno y su evolución.
<b>I (M1-S1)</b>	Por este motivo la aplicación de las investigaciones en fonética acústica al análisis de los trastornos del habla <i>es considerada de gran utilidad</i> en el control evolutivo de los pacientes con disartria.

### Text 35

Word count: 111

Sentence count: 5

Paragraph count: 1

<p><b>(M3-S1A)</b> + <b>M</b></p>	<p><i>El fin de esta investigación fue el análisis de la colisión acentual por medio del estudio acústico de las emisiones de un informante español, perteneciente a un dialecto hispanoamericano. Las mediciones de F0 y de la duración se realizaron en los contornos de entonación y en las trazas oscilográficas. Los datos fueron normalizados por medio del cálculo aritmético y logarítmico de z-score.</i></p>
<p><b>R</b></p>	<p><i>Los resultados indicaron una tendencia a la compensación de los rasgos fonéticos: los valores tonales fueron más altos mientras que las duraciones se redujeron, y viceversa, con el propósito de restablecer el contraste de las prominencias.</i></p>
<p><b>C</b></p>	<p><i>Esto sugirió que los hablantes de español no evitarían la colisión acentual.</i></p>

### Text 36

Word count: 195

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>Este trabajo parte de la hipótesis de que hay ciertas cualidades acústicas intrínsecas de las consonantes oclusivas sordas del castellano, a saber, la duración de la barra de explosión, el VOT y la frecuencia en la máxima amplitud de la barra de explosión, que sirven para caracterizarlas y distinguirlas unas de otras.</i>
<b>M</b>	<i>Se ha contado con la participación de seis informantes adultos: tres masculinos y tres femeninos; a quienes se ha hecho pronunciar diversas series de secuencias bisilábicas con objeto de obtener información sobre el comportamiento de dichas oclusivas, con un total de 720 registros.</i>

<b>C</b>	De acuerdo con los resultados de los análisis <i>realizados</i> , <i>se pueden</i> extraer las siguientes conclusiones: la duración de la barra de explosión <i>no parece</i> relevante para distinguir entre las tres oclusivas <i>sometidas</i> a estudio; el VOT es, en su valor medio, una característica de cada oclusiva aunque hay solapamiento en sus respectivos rangos de valores; la frecuencia en la máxima amplitud es marcadamente distintiva en sus valores medios y el solapamiento de sus valores extremos es menor; considerando simultáneamente VOT y frecuencia, <i>se obtiene</i> la más clara y distinta identificación entre las tres oclusivas, con porcentajes próximos al 100%.
----------	---

### Text 37

Word count: 275

Sentence count: 8

Paragraph count: 3

<b>I (M1-S2)</b>	Investigaciones realizadas dentro del marco de la percepción del habla han permitido dar cuenta de la influencia de algunos aspectos contextuales en la percepción. <i>Se ha comprobado</i> por ejemplo que la velocidad de habla afecta ciertos parámetros temporales, tales como el VOT o tiempo de iniciación vocálica, causando una alteración del mapa perceptivo entre la señal acústica y la estructura fonética, al desplazar los límites entre lo que en percepción categorial se denomina categoría fonética.
<b>I (M3-S1A)</b>	Con este estudio <i>pretendíamos</i> averiguar cuáles eran los efectos de la velocidad de habla en la producción y percepción de /t/ en inglés y en catalán.

<p>C</p>	<p><i>El análisis acústico</i> de las producciones de ambos grupos de hablantes <i>corroboró <u>nuestras</u></i> expectativas de que la duración del VOT en inglés -y fase de silencio en catalán-, se ajustaban a la velocidad de habla, adquiriendo valores más bajos en el habla rápida y más altos en el habla lenta.</p> <p>Desde el punto de vista perceptivo, sin embargo las pruebas piloto <i>llevadas a cabo</i> con dos sujetos -uno para cada lengua- demostraron que los oyentes no ajustaban su percepción de habla como ocurría en estudios anteriores para el inglés. Ello <i>nos lleva a la sospecha</i> de que el ajuste de la percepción a la velocidad de habla se produce sólo en los límites entre categorías fonéticas y no a nivel interno de categoría. <b>De ser eso cierto, <i>estaríamos en desacuerdo con Miller y cols. cuando afirman que</i></b> la influencia del contexto no se limita a la región limítrofe entre dos categorías sino que se extiende al centro de la categoría, desplazando la localización de lo que se denomina “prototipo” o “mejor ejemplar” de la categoría.</p>
----------	---



### Text 38

Word count: 95

Sentence count: 4

Paragraph count: 1

<b>I (M1-S1)</b>	Una correcta determinación de la posición y evolución de los formantes del habla <i>ayudaría enormemente</i> a avanzar en diversos campos de la ciencia, como la fonética acústica o el reconocimiento y síntesis de voz.
<b>I (M3-S1B)</b> + <b>M</b>	Las características del método de Predicción Lineal (LPC) se adaptan de forma natural a la obtención de formantes, por lo que en este artículo <i>se presentan</i> resultados <i>conseguidos</i> partiendo de algoritmos propios <i>diseñados</i> tomando como base LPC.
<b>C</b>	<b>Los sonogramas habituales (basados en la Transformada de Fourier) reflejan peores resultados</b> en la determinación de la posición y evolución de los formantes.

### Text 39

Word count: 83

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b>	En este artículo <i>se muestran diversos</i> mapas de formantes <i>obtenidos</i> a partir de grabaciones de sonidos pronunciados en situaciones de coarticulación.
<b>M</b> + <b>I (M3-S1A)</b>	Las muestras de voz <i>se han procesado</i> empleando algoritmos de predicción lineal, extrayéndose los tres primeros formantes. Después <i>se han creado</i> mapas tridimensionales y bidimensionales que muestran la posición y evolución de estos formantes. En el estudio <i>se utilizan</i> cuatro hablantes y más de 3000 valores frecuenciales de posición de formantes, en un intento de validar la metodología y herramientas propias <i>empleadas</i> .

**Text 40**

Word count: 71

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>Este artículo aporta una gran cantidad de sonogramas que muestran la evolución de los formantes del habla en porciones de sonido VCV.</i>
<b>M</b>	Los sonogramas <i>han sido escogidos</i> como representativos entre <i>un gran número</i> de pruebas <i>realizadas</i> con cinco hablantes de diferentes sexos. Los algoritmos de tratamiento de la señal que <i>se han utilizado</i> para obtener los sonogramas se basan en desarrollos originales centrados en el método de Predicción Lineal (LPC).

# Spanish Psychology Texts

## Index

1. Becoña, E. (1985) "Relación del conservadurismo con personalidad y adaptación en universitarios." *Psicológica* 6: 87-101.
2. Rubio, V. (1986) "Profesión paterna y nivel lector de los hijos." *Psicológica* 7: 57-68.
3. Coello-García, M. (1989) "El contar en los preescolares: comprensión y habilidad en el procedimiento de ejecución." *Psicológica* 10: 83-103.
4. Meseguer, E., Sanfeliu, C. & Algarabel, S. (1990) "Tiempo de pronunciación en función de la sobrecarga de memoria." *Psicológica* 11: 25-43.
5. Darias, E. & Prieto, P. (1990) "Expectativas del experimentador, status del investigador y engaño en la investigación experimental." *Psicológica* 11: 129-140.
6. Briales, C., Conde, M. & Grzib, G. (1991) "Sinus-arrítmia respiratoria: aportaciones a la medición y cuantificación." *Psicológica* 12: 161-185.
7. Rodríguez-Miñón, P., Garriga, A. & Ponsoda, V. (1991) "Opciones no lineales en las funciones psicofísicas." *Psicológica* 12: 187-194.

8. Meliá, J., Sesé, A. & Oliver, A. (1992) “Propiedades psicométricas y análisis factorial confirmatorio del Cuestionario de Respuesta hacia la seguridad de los supervisores y mandos intermedios (RS3/7).” *Psicológica* 13: 285-299.
9. González-Romá, V., Lloret, S. & Espejo, B. (1993) “Comparación de dos modelos de medida del Cuestionario de Salud General (GHQ-12).” *Psicológica* 14: 259-268.
10. Balluerka, N., López, A. & Yenes, F. (1994) “Aprendizaje de textos científicos: ¿son ayudas igualmente efectivas las instrucciones y los esquemas en estudiantes con diferente nivel educativo?.” *Psicológica* 15: 55-74.
11. Álvarez, A. & Chamizo, V. (1994) “Efectos de la preexposición a un sabor más o menos complejo en la adquisición de una aversión y en la generalización a un segundo sabor.” *Psicológica* 15: 85-99.
12. Díaz-Esteve, J. (1995) “Análisis de las encuestas de evaluación del profesorado en la Facultad de Psicología de la Universidad de Valencia.” *Psicológica* 16: 87-99.
13. Soler, M. J., Ruiz, J. & Maestre, M. (1995) “Un estudio sobre la validación de la versión en español del *Rivermead Behavioural Memory Test* (RBMT) para jóvenes entre 10 y 14 años de edad.” *Psicológica* 16: 283-295.
14. Gómez, J. & Navas, M. (1996) “Detección del funcionamiento diferencial de los items mediante regresión logística: purificación paso a paso de

- la habilidad.” *Psicológica* 17: 397-411.
15. Maestre, M., Frías, D. & Pérez-Delgado, E. (1996) “El Cuestionario de Problemas Sociomorales (DIT) de J. Rest: Baremos para su aplicación en la población española.” *Psicológica* 17: 493-502.
  16. Alameda, J. & Cuetos, F. (1997) “Frecuencia y vecindad ortográfica: ¿Factores independientes o relacionados?” *Psicológica* 18: 43-68.
  17. Alonso, M. & Fernández, A. (1997) “Contexto ambiental y memoria: ausencia de efectos en condiciones de procesamiento optimizado del entorno.” *Psicológica* 18: 209-225.
  18. Trobalon, J. (1998) “Aprendizaje perceptivo en el condicionamiento de aversión al sabor: el papel del número de ensayos de preexposición.” *Psicológica* 19: 137-152.
  19. Puerta-Melguizo, M., Bajo, M. & Gómez-Ariza, C. (1998) “Competidores semánticos: estudio normativo de un conjunto de 518 pares de conceptos.” *Psicológica* 19: 321-343.
  20. Perea, M. & Algarabel, S. (1999) “Puntuaciones atípicas y potencia estadística con diferentes procedimientos de análisis de los tiempos de reacción: un estudio de simulación.” *Psicológica* 20: 211-226.
  21. Peinado-Manzano, M. (1985) “Funcionamiento del sistema nervioso autónomo y expectativa de control I-E.” *Análisis y Modificación de Conducta* 11: 59-76.
  22. Lamas, J., Blanco, M. & Alcaraz, M. (1987) “La escala del grupo de susceptibilidad hipnótica de Harvard (forma A): estudio en una

- muestra española”. *Análisis y Modificación de Conducta* 13: 279-296.
23. Cullen, K., Mesa, P., Caro, A. & Blanco, A. (1988) “Formulación de un programa de preparación psicológica a la intervención quirúrgica en pediatría.” *Análisis y Modificación de Conducta* 14: 134-156.
24. García-Medina, P. (1989) “Cuestionario de agrado-desagrado y adecuación en la percepción y la actitud hacia el centro escolar (ADACE).” *Análisis y Modificación de Conducta* 15: 212-134.
25. Aguado, A. & Alcedo, M. (1990) “La inteligencia como variable interviniente en los procesos de rehabilitación de discapacitados motóricos.” *Análisis y Modificación de Conducta* 16: 78-93.
26. Vera, M. (1990) “Biofeedback EMG frontal y terapia cognitiva en el tratamiento de cefaleas tensionales, migrañas y cefaleas mixtas.” *Análisis y Modificación de Conducta* 16: 245-267.
27. Pelechano, V. & Matud, M. P. (1991) “Maternidad y crianza del hijo: un estudio empírico a los tres meses tras el parto.” *Análisis y Modificación de Conducta* 17: 56-78.
28. Barberá, E. (1991) “Preferencias motivacionales en la orientación hacia la acción. Su relación con las variables sexo y género.” *Análisis y Modificación de Conducta* 17: 168-189.
29. Báguena, M. & Díaz, A. (1991) “Personalidad, diferencias sexuales y delincuencia juvenil. Análisis estructural.” *Análisis y Modificación de Conducta* 17: 287-308.

30. Azpiri, M., González, C. & López, A. (1992) “Emoción expresada familiar y curso de la esquizofrenia: análisis comparativo de los patrones de emoción expresada familiar obtenidos por los familiares de un grupo de pacientes esquizofrénicos residentes en la C.A.V.” *Análisis y Modificación de Conducta* 18: 81- 105.
31. Solera, A. (1992) “Tratamiento de trastornos hipocondriacos mediante un cambio de atribución.” *Análisis y Modificación de Conducta* 18: 179-196.
32. Guio, S. & Santacreu, J. (1992) “Salud visual: evaluaciones de hábitos visuales en escolares.” *Análisis y Modificación de Conducta* 18: 256-281.
33. Romero, E., Garra, A. & Luengo, M. (1993) “Self-monitoring, grupo de iguales y delincuencia juvenil: un análisis empírico.” *Análisis y Modificación de Conducta* 19: 97-122.
34. Ballester-Arnal, R. & Gil, M. (1994) “Salud sexual: análisis del comportamiento sexual de adolescentes, jóvenes y adultos en la comunidad valenciana.” *Análisis y Modificación de Conducta* 20: 176-198.
35. Fernández, F., Ayats, N., Jiménez, S., Saldaña, C., Turón, J. & Vallejo, J. (1995) “Entrenamiento en habilidades conversacionales en un grupo ambulatorio de pacientes anoréxicas. Un diseño de línea base múltiple.” *Análisis y Modificación de Conducta* 21: 36-59.
36. Cibrián, A. & Colom-Marañón, R. (1995) “¿Tests? Sí, gracias, y



¿factores? También, por favor.” *Análisis y Modificación de Conducta* 21: 211-234.

37. Bethencourt, J., Fumero, A., Fernández, E. & León, R. (1997) “Programa de intervención comunitario para el entrenamiento de adolescentes en información y educación sexual: un análisis de los primeros resultados sobre conocimientos y actitudes sexuales.” *Análisis y Modificación de Conducta* 23: 97-129.
38. Comeche, M., Vallejo, M. & Díaz, M. (1997) “Tratamiento psicológico de las cefaleas: potenciación de los efectos terapéuticos mediante un acercamiento activo-pasivo.” *Análisis y Modificación de Conducta* 23: 245-269.
39. Chico, E. & Vázquez, N. (1998) “Relación entre la escala de búsqueda de sensaciones de Zuckerman y el inventario de búsqueda de sensaciones de Arnett.” *Análisis y Modificación de Conducta* 24: 187-209.
40. Cáceres, J. (1999) “Discusiones de pareja, violencia y activación cardiovascular.” *Análisis y Modificación de Conducta* 25: 68-93.

## Text 1

Word count: 95

Sentence count: 2

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<i>Se analiza</i> la relación entre conservadurismo, evaluado por el factor C-I: conservadurismo, derivado de la escala C de Wilson y Patterson, con cuatro escalas del 16 P. F. (factores A, E, I, y Q), cuatro del M.M.P.I. (dominancia, hipomanía, introversión social y desviación psicopática) y tres de adaptación (emocional, familiar y social) en una muestra de 405 sujetos universitarios.
<b>C</b>	<i>Se discuten</i> los resultados sobre las predicciones <i>realizadas</i> , <i>haciéndose</i> notar la conveniencia de definir claramente conceptos como conservadurismo o autoritarismo y delimitar si tales conceptos se encuentran en un nivel actitudinal, de personalidad, o en ambos.

## Text 2

Word count: 79

Sentence count: 2

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<i>Se analizan</i> las diferencias en Lectura Oral y Lectura Comprensiva debidas a la profesión paterna en una muestra de 1453 alumnos de 3º de EGB de colegios de las provincias de Madrid, Avila y Guadalajara.
<b>C</b>	<i>Los resultados apoyan</i> la hipótesis de que el estatus profesional establecido en base a criterios económicos, sociales y culturales, influye en el nivel lector de los sujetos, así como la característica de ubicación (urbano o rural) y tipo (privado o público) de los centros.

### Text 3

Word count: 252

Sentence count: 9

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	<p><i>Se examinó</i> el conocimiento de los “principios” de contar y la relación entre dicho conocimiento y la habilidad en el proceso de ejecución de la tarea de contar estándar en un grupo de niños de 4 a 6 años. Para valorar el conocimiento de los principios <i>se analizó</i> la aptitud de los niños para discriminar entre errores de contar y modos de contar correcto (habitual y no habitual) realizados por un muñeco. Los errores de contar violaban alguno de los siguientes “principios”: orden estable, correspondencia uno-a-uno, cardinalidad. Para evaluar la habilidad en el procedimiento de contar estándar los niños contaron en ocho ocasiones un conjunto de objetos <i>dispuestos</i> en línea.</p>
------------------------------------	---

<p><b>R</b></p>	<p><i>Los resultados revelaron que: a) los niños de 4-6 años eran capaces de discriminar entre errores de contar y contar correcto y que esta habilidad crece con la edad; resultados semejantes se encuentran al analizar separadamente cada principio; b) el tamaño de los conjuntos tuvo un efecto significativo en los rechazos de errores; los errores fueron rechazados en proporciones superiores en conjuntos pequeños que en los grandes; c) un alto porcentaje de niños de 6 años consideraron esencial la correspondencia palabra-objeto, pero no comprendían todavía que los demás rasgos del contar habitual son accesorios; d) se observó una tendencia evolutiva en las diferencias de proporciones de rechazos relativas a los errores que violaban los tres principios; e) la habilidad en la ejecución parecía preceder a la comprensión de los “principios” tal como se han evaluado en este trabajo.</i></p>
-----------------	--

#### Text 4

Word count: 190

Sentence count: 8

Paragraph count: 1

<b>I (M3-S1A)</b>	<p><i>La finalidad más importante de la presente investigación es estudiar las posibles relaciones existentes entre la memoria de trabajo, según la formulación de Baddeley y Hitch (1974), y el modelo reticular activacional de la memoria a largo plazo según las formulaciones de Collins y Loftus (1975) y Posner y Snyder (1975). Por otra parte, también se comprueba el concepto de facilitación retroactiva, según definición de Briand, Den Heyer y Dannenbring (1988).</i></p>
<b>M</b>	<p>Para todo ello se realiza un experimento de nombrado de palabras test con presentación de múltiples palabras señal (precarga de memoria) y recuerdo posterior de éstas. Se manipuló la relacionalidad entre una de las palabras del grupo de precarga y la palabra test (presencia de una palabra relacionada, ausencia de palabra relacionada y condición “neutro”) y el tamaño del grupo de señales (una señal, dos señales, tres señales y cuatro señales).</p>

<b>C</b>	En lo que se refiere a la relación entre los dos tipos de memoria, los resultados <i>obtenidos</i> son <i>de difícil interpretación</i> al no conseguir que se produzca la buscada facilitación de las palabras test, con lo que no <u>podemos</u> sacar ninguna conclusión sobre la mencionada relación. Por lo que se refiere a la facilitación retroactiva, <i>los resultados apoyan</i> la definición que de ésta dieron Briand, Den Heyer y Dannenbring.
----------	---

## Text 5

Word count: 190

Sentece count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	En las dos últimas décadas <i>se ha puesto</i> de manifiesto que si bien la investigación experimental en psicología no representa el mismo procedimiento uniforme y estandarizado del control de las varianzas propio de las ciencias físico-naturales, la interacción experimentador (o investigador) x sujeto experimental crea efectos de confusión sólo en condiciones especiales.
<b>I (M3-S1B)</b> + <b>M</b>	<i>Este trabajo analizó</i> tres de los efectos típicos, a través de un diseño factorial inter 2x2x2 (expectativas del experimentador x status del investigador x uso del engaño), y cuyas variables dependientes fueron el número de respuestas condicionadas y el grado en que los sujetos advertían el intento de condicionamiento.



<b>R</b>	<i>Los resultados mostraron sólo efectos interactivos entre las expectativas del experimentador y el status del investigador, provocando que el sujeto tome diferentes direcciones, actuando, bien como sujeto ingenuo, o bien contrariamente a los deseos del experimentador.</i>
<b>C</b>	<i><u>Sugerimos</u> por tanto, que si bien los factores en solitario no parecen ejercer ningún efecto, en futuras investigaciones se delimite la relevancia del status del investigador y sus expectativas. Ello puede conducir a tener un mayor control y validez de los resultados que el investigador encuentra en el marco de su laboratorio.</i>

## Text 6

Word count: 144

Sentence count: 6

Paragraph count: 1

<b>I (M1-S1)</b>	<i>Recientemente</i> existe un <i>creciente interés</i> en la relación entre reactividad cardiovascular simpática a determinadas situaciones de estrés en laboratorio y control parasimpático del miocardio. Debido a ello, la cuantificación de la sinusarritmia respiratoria como índice de dicho control parasimpático está adquiriendo <i>importancia</i> .
<b>I (M2-S1B)</b>	La determinación de la sinus-arritmia en sujetos humanos conscientes presenta la dificultad de tener que eliminar otras <i>posibles</i> influencias de la variabilidad de la tasa cardíaca, no debidas a la respiración. Una cuantificación adecuada, en este sentido, <i>parece</i> garantizarse utilizando el análisis espectral y de coherencia.
<b>I (M3-S1B)</b>	En este artículo <i>se presenta</i> un procedimiento de medición, <i>conseguido</i> en el laboratorio de la UNED y los pasos del análisis de datos. <i>Se enfatiza</i> en esta descripción los requerimientos básicos que tienen que cumplir los datos para poder efectuar estos métodos de análisis y <i>se ejemplifica</i> la exposición con los datos de un experimento.

## Text 7

Word count: 135

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	En <i>muchos</i> trabajos psicofísicos, la adecuación a los datos empíricos del modelo de Fechner o Stevens se evalúa examinando la magnitud y significación del coeficiente de correlación de Pearson.
<b>I (M2-S1B)</b>	<b><i>Distintos autores han criticado la utilización de este índice como media del ajuste apuntando varios inconvenientes.</i></b>
<b>I (M3-S1B)</b> + <b>M</b>	En este trabajo <u>aplicamos</u> otra técnica alternativa que estudia además la existencia y el grado de otros tipos de dependencia sistemática de la sensación, S, sobre el neperiano del estímulo, E, o de $\ln S$ sobre $\ln E$ , mediante una extensión del modelo lineal (Hays, 1988). <u>Podríamos</u> así contrastar si el modelo lineal ajustado es el más adecuado o si existen otras opciones no lineales que pueden describir también los datos <i>obtenidos</i> .
<b>C</b>	<b><i>Nuestros datos revelan que el ajuste lineal es el mejor</i></b> , pero existe además, la <i>posibilidad</i> de ajustes curvilíneos.

## Text 8

Word count: 178

Sentence count: 7

Paragraph count: 1

<b>I (M3-S1B)</b>	En este trabajo <i>se analizan</i> los primeros resultados sobre el Cuestionario RS3/7 orientado a la medida de la Respuesta hacia la Seguridad Laboral de los Supervisores, Mandos Intermedios y Directivos.
<b>M</b>	La respuesta de los Superiores hacia la Seguridad <i>es medida</i> como la percepción del trabajador acerca de las actitudes, contingencias y conductas de su superior sobre los aspectos de seguridad, incluyendo las sanciones, incentivos, refuerzos sociales, efecto de modelado, etc. que el superior lleva a cabo ante la forma del desempeño del trabajador relativo a la seguridad. El cuestionario <i>fue administrado</i> a 600 trabajadores pertenecientes a una muestra aleatoria de empresas con alta siniestralidad, del que se <i>obtuvieron</i> 182 cuestionarios válidos. <i>Se han realizado</i> análisis factoriales exploratorios y confirmatorios que permiten sostener un modelo unifactorial.

<b>I (M3-S2)</b>	<i>Se realizaron</i> análisis de fiabilidad y homogeneidad de los items con resultados satisfactorios.
<b>I (M3-S3)</b>	Por último <i>se discute</i> la validez de la escala y <i>se pone</i> en relación el constructo respuesta de los superiores con otros afines aparecidos en la literatura psicológica.
<b>C</b>	<i>Los análisis sugieren</i> mejoras en aspectos del contenido de los items.

## Text 9

Word count: 128

Sentence count: 5

Paragraph count: 1

<b>I (M2-S1B)</b>	<b>Los estudios realizados acerca de la estructura factorial del Cuestionario General de Salud (GHQ-12) mediante técnicas de análisis factorial exploratorio ofrecen resultados inconsistentes</b> , apoyando unos una estructura monofactorial, en tanto que otros respaldan una estructura bifactorial.
<b>I (M1-S3)</b>	Por otra parte, <b>los resultados de la comparación de los dos modelos de medida realizada mediante técnicas de análisis factorial confirmatorio (AFC) por González-Romá et al. (1991) indican que la estructura bifactorial es la que mejor se ajusta a los datos</b> , aunque el ajuste que presenta no resulta suficiente.
<b>I (M3-S1B)</b> + <b>M</b>	En este estudio <i>han vuelto a compararse</i> los dos modelos mencionados sobre una nueva muestra de 112 policías locales, empleando también técnicas de AFC.
<b>C</b>	<b>Los resultados obtenidos señalan que la estructura bifactorial muestra un mejor ajuste</b> , aunque éste no es suficiente.

## Text 10

Word count: 221

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1B)</b>	En dos experimentos <i>se examina</i> la influencia que ejerce sobre el aprendizaje de textos científicos explicativos el hecho de que estudiantes universitarios y de Bachillerato dispongan de instrucciones centradas en los puntos más relevantes del texto y en sus interconexiones así como la influencia de que realicen, durante la fase de estudio, un esquema lógico didáctico basado en las instrucciones.
-------------------	---

<p><b>R</b> + <b>M</b></p>	<p>En el experimento 1, <i>llevado a cabo</i> con 39 estudiantes universitarios, los grupos de instrucciones y de esquema dirigido presentan mejor rendimiento que el grupo de control en una prueba de resolución de preguntas aplicadas. El reconocimiento de diversos contenidos del texto también es mejor en el grupo de instrucciones que en el de control. El experimento 2 es una réplica del anterior con 75 estudiantes de bachillerato. En este caso, los dos grupos experimentales (instrucciones y esquema dirigido) rinden significativamente mejor que el grupo de control en la prueba de reconocimiento, sin embargo las instrucciones son la única ayuda efectiva para mejorar el rendimiento en las preguntas aplicadas.</p>
<p><b>C</b></p>	<p>Dado el paralelismo existente entre las ayudas cuyos efectos <i>se contrastan</i> en este trabajo y determinadas técnicas de uso común en el contexto académico, <i>se discuten</i> las implicaciones que pueden tener los datos en el campo de la educación y <i>se plantean algunas</i> cuestiones que <i>deberían tenerse en cuenta</i> en el futuro.</p>



## Text 11

Word count: 157

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A/B)</b> + <b>M</b>	En dos experimentos a unas ratas <i>se les inyectó</i> cloruro de litio después de beber soluciones con sabores distintos. A continuación, simultáneamente <i>se registró</i> el grado de aversión al sabor condicionado y la generalización de la aversión a otro sabor, no condicionado.
<b>R</b>	<i>El experimento 1</i> mostró que la exposición a un sabor simple (ácido o dulce) ocasionaba una menor aversión al mismo (inhibición latente), descartando otras explicaciones alternativas. <i>El experimento 2</i> mostró que la exposición a un sabor compuesto (ácido+azahar o dulce+azahar) también ocasionaba una menor aversión al mismo (inhibición latente) y además, <i>puso</i> de manifiesto un claro efecto de aprendizaje perceptivo: la exposición a ácido+azahar o dulce+azahar facilitaba la discriminación posterior entre ambos compuestos y, al igual que en el experimento 1, esta facilitación no ocurría con sabores simples.

<b>C</b>	Estos resultados <i>se explican</i> en base al mecanismo de la inhibición latente diferenciada de los elementos comunes y únicos de los estímulos preexpuestos.
----------	---

## Text 12

Word count: 242

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1A)</b> + <b>M</b>	<i>Este estudio hace un análisis de los resultados de las encuestas de evaluación del profesorado de la Facultad de Psicología de la Universidad de Valencia aplicadas a 106 profesores en el curso académico 1992-93, con el objeto de estudiar el efecto de variables tales como área donde se imparte la materia, categoría laboral del profesor evaluado, curso donde el profesor enseña, número de alumnos por aula y sexo del profesor, sobre los siguientes tópicos: cumplimiento de las obligaciones, desarrollo de la clase, programación y utilización de los recursos pedagógicos, actitud hacia el estudiantado y sistema de evaluación.</i>
<b>C1</b>	Del análisis <i>se deducen conclusiones interesantes</i> , tales como la complejidad del atributo que <i>se pretende</i> medir, la relación entre la bondad de la evaluación dada por estudiantes y el nivel de exigencia del profesor y el sentimiento de cercanía del profesor, así como el interés que siente el alumno por los contenidos de la materia.

<p><b>R</b></p>	<p>Del mismo modo <i>se evidencian</i> algunos resultados contradictorios, como que el nivel de calificación recibida está en relación inversa al tipo de categoría laboral que tiene el profesor,</p>
<p><b>C2</b></p>	<p>lo que implica que <i>se debe</i> seguir avanzando en el perfeccionamiento de las características psicométricas del instrumento, así como utilizar sus resultados con sumo cuidado en las áreas administrativas y poner en alerta a la Facultad ante la <i>posible</i> pérdida de calidad de la enseñanza universitaria, si se hace un uso indebido de los resultados de instrumentos de medida tan débiles.</p>

### Text 13

Word count: 98

Sentence count: 4

Paragraph count: 1

<b>I (M1-S2)</b>	El Rivermead Behavioural Memory Test es una prueba de memoria que está a caballo entre los tests psicométricos clásicos y las medidas de laboratorio. En su versión inglesa se ha manifestado como una prueba válida para detectar problemas de memoria, aplicable a un rango de edad, en sus dos versiones, entre los 5 y los 69 años.
<b>M</b>	<i>Se administró</i> el test a un total de 144 escolares del Segundo Ciclo de la Educación General Básica.
<b>I (M3-S1B)</b>	En este trabajo <i>se ofrecen</i> resultados preliminares tanto de su validación como de las normas de ejecución tomando una muestra de escolares valencianos.

## Text 14

Word count: 154

Sentence count: 6

Paragraph count: 1

<b>I (M1-S1)</b>	El estudio del funcionamiento diferencial de los items (DIF) es una de las áreas psicométricas <i>de más auge</i> en las últimas décadas.
<b>I (M2-S3)</b>	Unos de los métodos propuestos <i>recientemente</i> es la Regresión Logística (Swaminathan y Rogers, 1990).
<b>I (M3-S1B)</b>	En el presente trabajo <i>se plantea</i> el incremento de eficacia de este procedimiento en la detección de DIF uniforme cuando <i>se utilizan</i> métodos de purificación de la medida de habilidad.
<b>M</b>	Utilizando datos simulados, <i>se redefinió</i> la habilidad considerando solo los items que no presentaban DIF en un análisis previo.

<b>C</b>	<p><i>Los resultados pusieron de manifiesto una mejoría con respecto a los encontrados sin purificar la medida de habilidad y llevaron a intentar una posible optimización de la eficacia si la purificación se realizaba paso a paso, eliminando en cada iteración sucesiva únicamente el ítem que mostrara mayor cantidad de DIF. Este procedimiento de depuración paulatina incrementó la tasa de identificaciones correctas, lo que apoya la conveniencia de su utilización.</i></p>
----------	--

## Text 15

Word count: 108

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>Este trabajo supone un avance más en la utilización de uno de los instrumentos más aplicados en Psicología para medir el razonamiento sociomoral, se trata del cuestionario sobre problemas sociomorales (DIT) de Rest.</i>
<b>I (M1-S2)</b>	Este instrumento tiene como principal finalidad medir el pensamiento postconvencional de los sujetos.
<b>M</b>	<i>Se presentan los percentiles de la puntuación P %, pensamiento postconvencional, <i>construidos</i> a partir de una amplia muestra de sujetos, teniendo en cuenta su nivel educativo.</i>
<b>C</b>	<i>La presentación por primera vez de un estudio de percentiles del DIT con muestra española <i>aporta</i> a los profesionales de esta temática unos datos de referencia con los que poder comparar las puntuaciones directas de los sujetos.</i>



## Text 16

Word count: 147

Sentence count: 5

Paragraph count: 1

<b>I (M1-S2)</b>	Frecuencia de uso y vecindad ortográfica son dos de las principales variables que intervienen en el reconocimiento visual de las palabras.
<b>I (M2-S1B)</b>	Los efectos de la frecuencia son muy claros y robustos, sin embargo, los efectos de la vecindad vienen determinados por su interacción con la frecuencia y por la técnica experimental utilizada.
<b>I (M3-S1A)</b> + <b>M</b>	En este artículo, <i>se intentó</i> estudiar el papel que la vecindad ortográfica juega en el reconocimiento de palabras, en tres tareas experimentales distintas (naming, decisión léxica y desenmascaramiento progresivo) y bajo dos condiciones experimentales diferentes: a) controlando la frecuencia y usando tres tipos de vecindad y b) manipulando ambas, frecuencia y vecindad.

<b>R</b>	<i>Los resultados muestran</i> efectos facilitadores de la variable vecindad con las palabras de baja frecuencia e inhibidores con las de alta frecuencia, en las tareas de naming y decisión léxica. Con desenmascaramiento progresivo los efectos para las palabras de baja frecuencia son inhibidores.
----------	---

## Text 17

Word count: 181

Sentence count: 7

Paragraph count: 1

I (M2-S1B)	Los efectos del contexto ambiental en la memoria <b>han resultado ser poco fiables en un buen número de estudios previos.</b>
I (M3-S1A)	Con la intención de clarificar este problema, <i>se llevaron a cabo</i> dos experimentos.
I (M2-S1C)	<i>El primer experimento sometió</i> a comprobación la hipótesis de que el efecto del contexto dependía del grado en que se procesaba el entorno en el que tenía lugar el aprendizaje.
R <sub>1</sub>	<i>Los resultados no mostraron</i> ninguna ventaja en la condición de contexto igual, incluso cuando <i>se indujo</i> a los sujetos a procesar de manera más completa el contexto de aprendizaje.
I (M2-S1C)	<i>El segundo experimento sometió</i> a comprobación la hipótesis de que la representación del contexto tiene más <i>posibilidades</i> de servir de ayuda si <i>se instruye</i> a los sujetos para que usen indicios de recuperación contextuales en el momento del recuerdo.

<b>R2</b>	De nuevo, <i>los resultados pusieron de manifiesto</i> que no existía ninguna ventaja asociada al contexto igual, incluso en aquellos sujetos que hacían la prueba de recuerdo en la habilitación de aprendizaje y con instrucciones explícitas de uso del contexto como indicio de recuperación.
<b>C</b>	<i>Se señalan algunas</i> implicaciones para futuras investigaciones.

**Text 18**

Word count: 163

Sentence count: 6

Paragraph count: 1

<b>I (M3-S1A/B)</b> + <b>M1</b>	En tres experimentos de aprendizaje perceptivo <i>se utilizó</i> el condicionamiento de aversión al sabor para examinar el efecto de variar el tamaño de la preexposición.
---------------------------------------	--

<p><b>R</b> + <b>M2</b></p>	<p><i>Los experimentos 1A y 1B mostraron que al aumentar la preexposición a un par de sabores (soluciones de sal y de azúcar) se redujo la aversión al sabor condicionado (solución de sal) y se redujo la generalización de esta aversión al sabor no condicionado (solución de azúcar). El experimento 2 confirmó que la preexposición a dos sabores compuestos (soluciones de sal-limón y de azúcar-limón) que comparten un elemento en común (solución de limón) redujo más la aversión condicionada al elemento común que al elemento único, pero esta diferencia se redujo al aumentar la exposición a los sabores compuestos. La magnitud del aprendizaje perceptivo depende de la pérdida diferenciada de asociabilidad de los elementos comunes y únicos. Es evidente que esta diferencia se puede reducir al aumentar la exposición a los estímulos discriminativos.</i></p>
<p><b>C</b></p>	<p>Implicaciones de estos resultados <i>son discutidos</i> desde una teoría asociativa de la representación de los estímulos.</p>

## Text 19

Word count: 192

Sentence count: 6

Paragraph count: 1

<b>I (M1-S3)</b>	Los competidores semánticos se han definido como los elementos de una categoría que tienen un alto grado de similitud visual y/o funcional (Wheeldon y Monsell, 1994). Trabajos recientes, (Alario, Segui y Ferrand, en revisión; Wheeldon y Monsell, 1994), han encontrado efectos de interferencia en paradigmas de facilitación con tareas de denominación de dibujos cuando la similitud funcional entre el estímulo de preparación (prime) y el objetivo (target) es alta.
<b>I (M2-S1B)</b>	A pesar de <i>la importancia</i> que estas variables <i>parecen</i> tener para obtener efectos de facilitación o interferencia bajo el paradigma de facilitación semántica, <b>no existe actualmente un listado de estímulos con esta información.</b>

<b>I (M3-S1B)</b> + <b>M</b>	En el presente trabajo <i>se presentan</i> las estimaciones de similitud visual y funcional de un total de 518 pares de conceptos pertenecientes a 9 categorías.
<b>R</b>	Al investigar los efectos de la similitud funcional y visual sobre la denominación de dibujos, <u>encontramos</u> que los pares de conceptos con alta similitud funcional producen efectos de interferencia en la denominación de dibujos.
<b>C</b>	De manera que <i>parece</i> que la similitud funcional define mejor el grado de competición que la similitud visual.



## Text 20

Word count: 136

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)<sub>1</sub></b>	<i>Se analizó</i> el efecto de las puntuaciones atípicas en el análisis de los tiempos de reacción.
<b>I (M3-S1A)</b> + <b>M<sub>1</sub></b>	<i>Se efectuaron</i> simulaciones Monte Carlo para investigar la influencia de diversos procedimientos usuales de recorte y transformación de datos y su impacto en diseños intra-sujeto en los que <i>se recogen</i> múltiples observaciones para cada participante por condición experimental.
<b>R</b>	<i>Las simulaciones mostraron</i> que el empleo de medias truncadas (esto es, medias <i>obtenidas</i> tras la exclusión de datos que estén más allá de cierto rango, v.g., 300-1500 ms) es un procedimiento estadísticamente potente.
<b>C</b>	En todo caso, <i>se debería</i> efectuar un análisis de las puntuaciones atípicas para observar si los porcentajes de puntuaciones excluidas son similares a través de las condiciones.

<b>I (M3-S1B)<sub>2</sub></b> + <b>M<sub>2</sub></b>	Adicionalmente, <i>se analiza</i> cómo procedimientos gráficos (a partir de promedios “vicentizados”) pueden complementar los análisis de los tiempos de reacción.
--	--

## Text 21

Word count: 155

Sentence count: 8

Paragraph count: 1

<b>I (M1-S3)</b>	<i>Varios</i> investigadores han señalado que los sujetos controlan las respuestas autonómicas de forma diferencial, según su expectativa de Lugar de Control I-E (Rotter, 1966).
<b>I (M3-S1A/B)</b>	En este sentido <u>nos preguntamos</u> acerca de la relación entre el desequilibrio autonómico crónico y la expectativa de Lugar de control I-E.
<b>M</b>	<u>Registramos</u> varias respuestas autonómicas: presión arterial, tasa cardíaca, tasa respiratoria y la conductancia basal de la piel, y el GSR elicitado por un estímulo auditivo, en 135 sujetos. <u>Aplicamos</u> la escala Lugar de Control del Refuerzo Generalizado (LCRG). <u>Distribuimos</u> los sujetos en dos grupos neurovegetativos: Simpático y Parasimpático, según las puntuaciones que habían obtenido en las respuestas autonómicas.

<b>R</b>	<i>Los datos electrodérmicos indicaron</i> que los sujetos con predominio del sistema simpático emiten mayores respuestas ante los estímulos ambientales. No <u>encontramos</u> relación alguna entre el predominio simpático o parasimpático y la expectativa de Lugar de Control I-E.
<b>C</b>	<u>Continuamos preguntándonos</u> acerca de la psicofisiología de las expectativas cognitivo-motivacionales.

## Text 22

Word count: 106

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1B)</b>	<i>El trabajo presenta</i> los resultados de aplicar la HGSHS: A (Harvard Group Hypnotic Susceptibility Scales, form A) (Shor y Orne, 1962), en una muestra de universitarios españoles.
<b>I (M1-S1)</b>	La escala ha demostrado ser un instrumento de investigación también aplicable en nuestro país.
<b>M + R</b>	Los resultados <i>se sometieron</i> a análisis factorial y tanto la composición factorial de la escala como los estadísticos univariados dan resultados similares a los obtenidos en otras culturas por otros investigadores. Uno de <u>nuestros</u> resultados resalta claramente respecto a la mayoría de las investigaciones previas: un alto resultado de amnesia posthipnótica.
<b>C</b>	Los resultados se discuten a la luz de las concepciones actuales de la hipnosis.

### Text 23

Word count: 116

Sentence count: 3

Parragraph count: 2

<b>I (M3-S1B)</b>	<i>Se presentan</i> en este artículo los resultados de la primera fase de un programa de investigación acerca del tema de la Intervención Psicológica en el Hospital General. Dicho programa, acogido a un convenio entre el Departamento de Psiquiatría, Personalidad, Evaluación y Tratamientos Psicológicos de la Universidad de Sevilla y el hospital Universitario Virgen del Rocío de Sevilla, <i>se inició</i> en su totalidad en el Hospital Infantil adscrito al citado complejo hospitalario.
<b>I (M3-S1A)</b>	<i>El objetivo central del programa radica</i> en determinar la validez e importancia relativa de dos tipos de métodos de preparación psicológica para afrontar, en mejores condiciones, el estrés al que se ven sometidos los niños durante el período crítico de espera de una intervención quirúrgica.

## Text 24

Word count: 127

Sentence count: 5

Paragraph count: 2

<b>I (M3-S1B)</b>	<i>Se detalla</i> la construcción de un cuestionario sobre percepción del contexto escolar y actitud académica.
<b>M</b>	A una muestra constituida por alumnos de BUP <i>se pasó</i> una batería de pruebas de personalidad, motivación, quejas somáticas, quejas emocionales, un índice de satisfacción con la vida, un inventario de miedos y una prueba de inteligencia. <i>Se llevaron a cabo distintos</i> análisis de validación y <i>se halló</i> la fiabilidad del cuestionario.
<b>C</b>	<i>Los resultados son moderadamente</i> concluyentes pero <i>proporcionan</i> apoyo suficiente para la validez de contenido, convergente, predictiva, y discriminativa tanto para grupos de población como para características de centros escolares. Su consistencia interna, fiabilidad por mitades y estabilidad temporal <i>indican</i> que es plausible su inclusión entre los instrumentos psicométricos tradicionales no sin antes comprobar las propiedades encontradas en esta primera aproximación.

## Text 25

Word count: 114

Sentence count: 2

Paragraph count: 1

<b>I (M2-S1B)</b>	<i>Por lo común</i> , en discapacitados físicos motóricos, la inteligencia ha sido abordada como variable estática, <b>con escasa incidencia, salvo contados estudios</b> , en los procesos de rehabilitación.
<b>I (M3-S1A)</b> + <b>M</b>	En este trabajo, amén de revisar la literatura sobre el tema, <i>se pretende</i> replantear la cuestión desde la óptica de su papel en el proceso de rehabilitación, delimitando cuatro distintos niveles de interacción: a) proceso de rehabilitación a corto plazo, hospitalario, ante una discapacidad adquirida; b) proceso posthospitalario, a largo plazo; c) influencia en el desarrollo intelectual en el caso de las discapacidades congénitas y adquiridas en primera infancia; d) papel en la rehabilitación de las minusvalías consolidadas, caso más frecuente que demanda atención a nuestros servicios sociales.



**Text 26**

Word sentence: 159

Sentence count: 7

Paragraph count: 1

<p><b>I (M3-S1B)</b> + <b>M</b></p>	<p><i>Este estudio compara la efectividad de tratamientos cognitivos, biofeedback elctromiográfico (EMG) frontal y combinación de ambos en dos sujetos con cefaleas tensionales, dos con migra<sup>1</sup>as y cuatro con cefaleas mixtas. Se registraron niveles de dolor, tasa de fármacos, conductas de dolor y niveles EMG durante 6 semanas de tratamiento. Todos los sujetos recibieron tratamiento cognitivo o tratamiento de biofeedback durante 3 semanas, la combinación de ambos tratamientos, excepto dos de los sujetos con cefaleas mixtas que continuaron con los tratamientos simples. Se realizaron dos seguimientos de 1 y 18 meses respectivamente.</i></p>
---	--

<b>R</b>	<i>En general</i> , todos los tratamientos resultaron efectivos, aunque en algunos sujetos el tratamiento cognitivo resultó superior al biofeedback, la combinación de tratamientos no fue más efectiva que la simple continuación de ellos. Los sujetos con migra <del>las</del> as fueron los menos beneficiados tanto al final del tratamiento como en los seguimientos. El resto de los sujetos mantuvieron un mínimo de un 87% de mejoría a los 18 meses de seguimiento.
----------	---

**Text 27**

Word count: 181

Sentence count: 5

Paragraph count: 2

<b>I (M3-S1A)</b>	<i>El propósito fundamental de este trabajo es la exploración de las percepciones y actitudes que presentan las mujeres a los tres meses tras el nacimiento de su hijo.</i>
<b>M</b>	Para ello <u>hemos</u> realizado <i>una serie de</i> entrevistas individuales, durante las que se han cumplimentado <i>varios</i> cuestionarios, a un grupo de 127 mujeres que habían sido madres tres meses antes. Las mismas pruebas fueron cumplimentadas por un grupo de control de 100 mujeres no gestantes y que no habían sido madres en, al menos, un <del>año</del> antes. Ambos grupos no se diferenciaban de forma significativa en edad, nivel educativo y profesional y características obstétricas.

<b>R</b>	<p><i>Los resultados principales muestran</i> que a los tres meses tras el nacimiento del hijo, las madres recientes, frente a las mujeres “control” declaran mayor satisfacción en el cuidado del hijo y mayor agrado con el rol materno, menor impacto como consecuencia del nacimiento del hijo en el funcionamiento social, sexual, laboral y económico; declaran más miedos acerca de la salud de su hijo y atribuyen un menor papel al varón en el embarazo, parto y primeros cuidados del niño.</p>
----------	--

## Text 27

Word count: 113

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El principal propósito del trabajo consiste en analizar las relaciones existentes entre estados motivacionales (intenciones) y comportamientos efectivos (acciones).</i>
<b>I (M1-S2)</b>	<i>En términos generales, se puede decir que para algunas personas resulta fácil llevar a cabo una intención o mantenerla frente a otras fuerzas competidoras. Sin embargo, este proceso presenta bastantes dificultades para otra gente.</i>
<b>I (M1-S1)</b>	El <i>interés</i> básico consiste en estudiar las diferencias individuales en el nivel de dificultad para activar intenciones, así como en relacionar tales diferencias con las variables sexo (mujeres y varones) y género (masculinidad, feminidad y androginia psicológica).
<b>C</b>	Las implicaciones académicas de todo ello <i>pueden ser relevantes</i> , sobre todo en lo que respecta a los comportamientos de logro y rendimiento escolar.

## Text 29

Word count: 88

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1A)</b> + <b>M</b>	<i>El principal objetivo de este estudio es ofrecer la comparación en trece escalas de personalidad (extraversión, neuroticismo, conducta antisocial, locus de control y aspectos motivacionales), realizada entre los siguientes grupos de adolescentes (12-16 años): chicas (n = 43) y chicos (n = 79) delincuentes; chicas (n = 49) y chicos (n = 86) con problemas de socialización; chicas (n = 197) y chicos (n = 224) controles. Se presentan las medias, desviaciones típicas y estructuras factoriales para cada grupo.</i>
<b>C</b>	Los resultados <i>son interpretados</i> teniendo en cuenta el modelo biosocial propuesto por Eysenck.

**Text 30**

Word count: 87

Sentence count: 3

Paragraph count: 1

<p><b>I (M3-S1B)</b> + <b>M</b></p>	<p>Primera parte de un estudio de replicación de la investigación EE <i>realizado</i> en la Comunidad Autónoma Vasca, en el que 19 familias con un miembro esquizofrénico <i>son evaluadas</i> en las escalas de Emoción Expresada (EE). <i>Se comparan</i> los perfiles de EE <i>obtenidos</i>, con los otros estudios realizados en ambientes socio-culturales diferentes.</p>
<p><b>C</b></p>	<p>La inconsistencia de algunos resultados junto con la falta de criterios comunes en la elección de las muestras, <b>son factores que llevan a los autores a cuestionar la hipótesis de que EE esté determinado socioculturalmente.</b></p>

### Text 31

Word count: 97

Sentence count: 5

Paragraph count: 3

<b>I (M1-S2)</b>	<i>Recientemente</i> se está conceptualizando a la hipocondría, como un error a la hora de interpretar las sensaciones físicas que el sujeto se observa, viendo éstas como señales de una enfermedad fatal.
<b>I (M3-S1B)</b> + <b>M</b>	<i>Se presenta</i> un tratamiento conductual cognitivo <i>realizado</i> a cuatro pacientes. Basado en esta conceptualización y dirigido en pos de dos objetivos principales: consolidar un cambio de atribución y eliminar los refuerzos que los sujetos obtienen por su trastorno.
<b>R</b>	El tratamiento tuvo éxito en los cuatro casos, requiriéndose una media de ocho sesiones de una hora. La mejoría se mantenía en el seguimiento <i>realizado</i> a un año.



**Text 32**

Word count: 77

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1B)</b>	En este artículo, <u>exponemos</u> los resultados <i>obtenidos</i> en la evaluación de hábitos visuales en una muestra de escolares de la Comunidad de Madrid.
<b>R</b>	<u>Podemos</u> afirmar que los escolares <i>evaluados</i> muestran unos hábitos inadecuados, así como que existen diferencias entre miopes y emétopes en el tiempo de trabajo visual de cerca y el tipo de luz utilizada en las actividades visuales. Por otra parte, los escolares rurales muestran un uso mayor de luz natural que los escolares urbanos.

### Text 33

Word count: 193

Sentence count: 4

Paragraph count: 3

<b>I (M1-S1)</b>	<i>Diferentes trabajos han puesto de manifiesto la importancia del constructo “self-monitoring” en el análisis de la conducta social y de las relaciones interpersonales.</i>
<b>I (M1-S2)</b>	Si <u>tenemos</u> en cuenta, tal como <i>se deriva de un gran número de</i> investigaciones, que la conducta antisocial en la adolescencia está influida por el grupo social en el que el sujeto se desenvuelve y que la participación en actividades desviadas del grupo de iguales constituye un fuerte predictor de la conducta antisocial, <i>podríamos</i> inferir que los sujetos altos en self-monitoring, que se caracterizan por adecuar su conducta a las demandas de la situación, <i>serían</i> más susceptibles a la influencia de los iguales que los sujetos bajos en self-monitoring, que conscientemente se comportan de acuerdo a sus propias actitudes, creencias y estados internos.

<b>I (M3-S1B)</b>	En el presente trabajo <u>analizamos</u> en una muestra de adolescentes gallegos en qué medida el self-monitoring constituye una variable mediadora de la influencia que el grupo de iguales ejerce sobre la conducta antisocial de los adolescentes.
<b>C</b>	Los resultados, que no apoyan de forma contundente la hipótesis de partida, <i>se discuten</i> atendiendo a los problemas de conceptualización y medida del constructo “self-monitoring”.

### Text 34

Word count: 119

Sentence count: 4

Paragraph count: 1

<b>I (M3-S1B)</b> + <b>M</b>	En el presente estudio <i>se analiza</i> el comportamiento sexual de una muestra compuesta por 1135 sujetos de las provincias de Valencia y Castellón.
<b>R</b>	<i>Algunos de los resultados muestran</i> que el mayor porcentaje de sujetos realizan actividades sexuales de una a tres veces por semana; que el preservativo constituye el método anticonceptivo más utilizado; que <i>prácticamente</i> la mitad de la población ha utilizado alguna vez material pornográfico para excitarse y que un 30% de la población no se siente satisfecha en sus relaciones sexuales. En <i>gran parte de</i> las variables aparecen diferencias significativas en función del género, la población y el nivel académico.
<b>C</b>	<i>Se enfatiza</i> las implicaciones de estos resultados desde el punto de vista de la psicología de la salud.

### Text 35

Word count: 148

Sentence count: 8

Paragraph count: 1

<b>I (M1-S2)</b>	Los pacientes aquejados de anorexia nerviosa se caracterizan comúnmente, entre otras características, por presentar déficits en habilidades sociales y una tendencia marcada a presentar ansiedad y evitación sociales.
<b>I (M3-S1A)</b>	<i>El objetivo del presente estudio era</i> investigar la efectividad de un entrenamiento en habilidades conversacionales con pacientes anoréxicas.
<b>M</b>	<i>Se empleó</i> una muestra de 5 pacientes anoréxicas restrictivas, que previamente habían estado tratadas bajo internamiento en nuestro Servicio de Psiquiatría. Como variable independiente <i>fue utilizado</i> un programa en habilidades sociales (según Kelly y cols. 1984) en situación grupal ambulatoria. En todo el proceso de tratamiento <i>se siguió</i> un diseño de línea base múltiple entre conductas.

<b>R</b>	Tras 12 sesiones de tratamiento, y como consecuencia de las mismas, <i>se observó</i> una mejoría sustancial en todas las conductas meta, y principalmente en dos de ellas: contacto visual y frecuencia en preguntas conversacionales.
<b>C</b>	<i>Estos resultados demostraron</i> que las habilidades sociales entrenadas habían sido aprendidas adecuadamente.

### Text 36

Word count: 186

Sentence count: 5

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>Este trabajo tiene como objetivo estudiar la relación entre las pruebas psicométricas y el rendimiento académico en los alumnos universitarios, en concreto en los de la facultad de Psicología de la Universidad Autónoma de Madrid.</i>
<b>M</b>	Para ello, en primer lugar, <i>se seleccionó y aplicó</i> una batería de 10 pruebas psicométricas, en función de tres contenidos (verbal, numérico-abstracto y figural). En segundo lugar, <i>se registraron</i> las calificaciones en las asignaturas en 1º curso.

<p><b>R</b></p>	<p><i>Los resultados indican que: a) En lo que hace referencia a las pruebas psicométricas, estas conforman tres factores que corresponden a los tres contenidos anteriormente mencionados, b) en lo que se refiere al rendimiento académico, las calificaciones están significativamente relacionadas entre sí, c) en cuanto a la relación entre test y calificaciones, son los test de carácter verbal y numérico-abstracto los que correlacionan de forma significativa con las calificaciones y d) en lo que hace referencia a la capacidad de predicción de los tests, esta <i>parece</i> ser mayor en los alumnos de alto rendimiento que en los de bajo rendimiento.</i></p>
<p><b>C</b></p>	<p><i>Por todo ello, <u>sostenemos</u> que: Tests, sí, y factores, también <i>por favor.</i></i></p>



**Text 37**

Word count: 63

Sentence count: 3

Paragraph count: 1

<b>I (M1-S1)</b>	<i>El interés primordial de este artículo es dar a conocer un programa de educación sexual y de prevención de embarazos no deseados en adolescentes que ha contado con un riguroso diseño.</i>
<b>I (M3-S1B)</b>	En <u>nuestro</u> programa <u>ofrecemos</u> la última información sobre embarazos en adolescentes, sexualidad, anticonceptivos, aborto, SIDA, etc.
<b>I (M3-S3)</b>	<u>Presentamos</u> una descripción del programa que incluye los componentes del programa, el <u>diseño</u> , resultados y conclusiones.

### Text 38

Word count: 150

Sentence count: 4

Paragraph count: 1

<b>I (M2-S1B)</b>	Conocer la eficacia de los diferentes tratamientos del dolor y la influencia de efectos inespecíficos o placebo en dicha eficacia, <b>sigue siendo un reto.</b>
<b>I (M1-S2)</b>	Un aspecto del tratamiento en el que, <i>posiblemente</i> , esos efectos desconocidos manifiesten su eficacia terapéutica de diferente forma, es la implicación activa o pasiva del paciente en el proceso de tratamiento.
<b>I (M3-S1A)</b>	Para profundizar en este objeto de conocimiento, <i>este trabajo se plantea la posibilidad</i> de potenciar el efecto específico del tratamiento psicológico del dolor (implicación activa del paciente), con el posible efecto terapéutico desconocido ligado a intervenciones de carácter médico, centradas básicamente en el carácter externo del agente curativo (implicación pasiva del paciente).

<b>M</b>	Para ello <i>se ha elegido</i> el tratamiento de las cefaleas primarias, trastorno ampliamente estudiado desde el tratamiento psicológico, y el entrenamiento en biofeedback por su similitud con el instrumento médico y por facilitar unas condiciones de entrenamiento que potencien la pasividad del paciente.
----------	--

### Text 39

Word count: 132

Sentence count: 3

Paragraph count: 1

<b>I (M3-S1A)</b>	<i>El presente artículo intenta</i> explorar la relación entre dos escalas de búsqueda de sensaciones: La escala de búsqueda de sensaciones de Zuckerman (Zuckerman, Eysenck y Eysenck, Journal of Consulting and Clinical Psychology, 46, 139-149, 1978) y el inventario de búsqueda de sensaciones de Arnett (Arnett, Personality and Individual Differences, 16, 2, 289-296, 1994) y examinar la contribución de las dos medidas de búsqueda de sensaciones de cara a diferenciar entre sujetos bajos y altos en psicoticismo.
<b>C</b>	En el estudio, <b>la escala de Arnett está más estrechamente relacionada con el psicoticismo que la escala Zuckerman aunque la escala de Arnett no contiene ítems relacionados con conducta antisocial</b> (en contraste con la de Zuckerman).
<b>M</b>	Las dos medidas <i>se administraron</i> a 109 participantes cuyo rango de edad osciló entre 18 y 36 años.

## Text 40

Word count: 187

Sentence count: 8

Paragraph count: 3

<b>I (M3-S1A)</b>	<i>El objetivo del presente trabajo fue replicar, con una muestra española, los resultados de Gottman et al. (1995), quienes recurren a medidas psicofisiológicas para clasificar a los varones violentos en el ámbito doméstico.</i>
<b>M</b>	<i>Se analizó sistemáticamente la interacción de 39 sujetos, 20 hombres y 19 mujeres, que formaban pareja entre sí, y que habían acudido a un Centro de Salud en demanda de asesoramiento por problemas de pareja. 27 de ellos admitieron haberse visto envueltos en episodios de violencia doméstica. Se estudió su valoración subjetiva del grado de armonía relacional a través de cuestionarios (Escala de Ajuste Diádico, Inventarios interacción Sexual, Inventario Estatus Marital) y entrevistas semiestructuradas. Se estudió, también su activación psicofisiológica (tasa cardíaca, presión arterial y actividad electrodermal), al revivir una discusión reciente con su pareja.</i>

<b>R</b>	La mitad de los sujetos reaccionaron reduciendo la tasa cardíaca durante la primera parte de la discusión y todos los sujetos incrementaron la conductancia eléctrica de la piel durante el mismo período de tiempo.
<b>C</b>	<i>Se discuten</i> las implicaciones de estos resultados, tanto para el estudio de la interacción de pareja como de la violencia familiar y su posible tratamiento.

## English Phonetics Texts

Text 2 - *No writer mediation, Impersonal, +Hedging (R)*

- *No writer mediation, Impersonal, +Hedging (C)*

Text 3 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

- *No writer mediation, Impersonal, -Hedging (C)*

Text 7 - *No writer mediation, Impersonal, +Hedging (I-M2:S1A)*

- *No writer mediation, Impersonal, +Hedging (C)*

- *No writer mediation, Impersonal, + Hedging (C)*

Text 10 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

- *No writer mediation, Impersonal, +Hedging (R)*

- *No writer mediation, Impersonal, -Hedging (C)*

Text 14 - *No writer mediation, Impersonal, +Hedging (C)*

Text 16 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 17 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

Text 22 - *No writer mediation, Impersonal, +Hedging (C)*

Text 24 - *No writer mediation, Impersonal, +Hedging (C)*

Text 29 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 30 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 31 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 33 - *No writer mediation, Impersonal, -Hedging (C)*

Text 37 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 40 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*



## English Psychology Texts

Text 1 - *No writer mediation, Personal, +Hedging (C)*

- *No writer mediation, Personal, +Hedging (C)*

Text 2 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 3 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

- *No writer mediation, Impersonal, +Hedging (C)*

Text 5 - *No writer mediation, Personal, +Hedging (I-M2:S1A)*

- *No writer mediation, Personal, +Hedging (R)*

Text 8 - *No writer mediation, Impersonal, -Hedging (C)*

Text 10 - *Reported criticism, Personal, -Hedging (I-M1:S3)*

- *No writer mediation, Personal, +Hedging (R)*

Text 11 - *No writer mediation, Impersonal, +Hedging (I-M2:S1A)*

Text 12 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*  
- *No writer mediation, Impersonal, +Hedging (R)*

Text 14 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

Text 16 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*  
- *No writer mediation, Impersonal, +Hedging (C)*

Text 27 - *No writer mediation, Personal, +Hedging (I-M2:S1B)*

Text 30 - *No writer mediation, Personal, -Hedging (I-M2:S1A)*

Text 31 - *Reported criticism, Impersonal, + Indirect (I-M1:S2)*

Text 32 - *No writer mediation, Impersonal, +Hedging (I-M2:S1A)*

Text 33 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*  
- *No writer mediation, Personal, -Hedging (R)*

Text 37 - *No writer mediation, Impersonal, -Hedging (R)*  
- *No writer mediation, Impersonal, +Hedging (C)*

## Spanish Phonetics Texts

Text 15 - *No writer mediation, Personal, +Hedging (C)*

Text 18 - *No writer mediation, Personal, +Hedging (R)*

Text 22 - *No writer mediation, Personal, -Hedging (C)*

Text 25 - *No writer mediation, Personal, -Hedging (I-M2:S1A)*

Text 32 - *No writer mediation, Personal, -Hedging (C)*

Text 33 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

Text 37 - *No writer mediation, Personal, +Hedging (C)*

Text 38 - *No writer mediation, Impersonal, -Hedging (C)*

## Spanish Psychology Texts

Text 7 - *Reported criticism, Personal, +Hedging (I-M2:S1B)*  
- *No writer mediation, Personal, -Hedging (C)*

Text 9 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*  
- *Reported criticism, Impersonal, +Hedging (I-M1:S3)*  
- *No writer mediation, Impersonal, +Hedging (C)*

Text 17 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

Text 19 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

Text 25 - *No writer mediation, Impersonal, +Hedging (I-M2:S1B)*

Text 30 - *No writer mediation, Personal, -Hedging (C)*

Text 38 - *No writer mediation, Impersonal, -Hedging (I-M2:S1B)*

Text 39 - *No writer mediation, Personal, -Hedging (C)*