Competing for a Research Space: The Criticism of One's Own Scientific Community

Anna Fagan
Pedro Martín Martín
University of La Laguna

Showing disagreement with the ideas sustained in previous research or mentioning gaps in the existing literature are typical linguistic strategies used in scientific articles with the aim of justifying publication. In this paper we explore the interpersonal pragmatic phenomenon of academic conflict (AC) and attempt to complement this area of research by providing a taxonomy which can be used to classify the various rhetorical strategies that writers may use to convey academic criticism in scientific texts. The taxonomy of rhetorical options that we propose comprises three dimensions: i) the writer, who has several choices for conveying AC (with or without writer mediation, or reported) ii) the author, i. e. the target of criticism (personal or impersonal), and iii) the act of criticising itself (with of without hedging devices). We will also evaluate the application of this taxonomy to a corpus of 150 research articles from a wide range of disciplines, and discuss the limitations of a quantitative approach to academic criticism.

Introduction

Scientific discourse has often been viewed as purely informative, objective and impersonal. However, a growing literature in both sociology and applied linguistics (e.g. Gilbert & Mulkay, 1984; Hyland, 2000, 2001) has focused on the pragmatic aspects which involve scientific/academic discourse. These studies have shown that in the publication of texts there is a series of social interactions between writers and readers, which have an effect on the rhetorical choices that writers make to position themselves and their work in relation to the other members of their discourse community.

In order to justify publication, writers must create a research space that permits them to present their new knowledge claims to the other members of the academic community. This mainly implies that the authors make counter-claims (i.e. they offer alternative claims to those made in the literature they review) and/or indicate a knowledge gap in reference to previously published work (Swales, 1990).These rhetorical strategies involve the criticism of members of one's own discourse community.

Due to the importance of this issue in the area of scientific communication, recent studies of written academic discourse (see, for exam-

ple, Kourilova, 1996; Belcher, 1995; Swales, 1990; Myers, 1989; Salager-Meyer, 1998, 1999; Hyland, 2000; Burgess & Fagan, 2002) have become increasingly interested in analysing 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 quite frequent in order to avoid personal attacks. Indeed, as Myers (1989) states, in scientific discourse the making of claims threatens the face of other researchers and thus the use of politeness devices (i.e. hedges) is a frequent strategy used by writers to mitigate the Face Threatening Acts (cf. Brown & Levinson, 1987) involved in the publication of texts.

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 to previous texts in research articles are much more subtle and implicit than critical speech acts in book reviews and referees' comments on manuscripts submitted for publication (cf. Salager-Meyer, 1998; 1999). Along the same line, Hyland (2000), in his analysis of book review and the academic paper genres, found differences in the number of critical references. Hyland noted that peer reviews are essentially evaluative and therefore they carry a higher degree of personal conflict, as they represent a direct challenge to a specific author. Hyland also observed that criticism exceeded praise in the social science disciplines as opposed to the hard-knowledge disciplines in which the density of criticism was lower.

Salager-Meyer (1998, 1999) analysed this phenomenon in the discipline of medicine from a diachronic perspective (19th and 20th centuries), observing a clear-cut 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 of the criticised authors are explicitly mentioned in the text), while their mid and late 20th century counterparts mainly belong to the indirect and impersonal type (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). On the other hand, she found that French 20th – century AC has remained highly personal and categorical, whereas English 20th – century AC is characterised by caution/politeness and by the shifting of conflict responsibility onto some inanimate entity (e.g. data, results).

Furthermore, from a cross-cultural perspective, the issue of AC has been examined by other authors such as Taylor & Chen (1991) and Bloch & Li (1995). These authors contrasted Chinese and Anglo-American academic writing and concluded that, in opposition to Anglo-American writers, Chinese academics tended to avoid the indication of research gaps in their papers. Ahmad's (1997) study revealed that Malaysian academics rarely criticise previously published work, and Duszak (1994, 1997) remarks that, unlike English, languages such as German, Polish and Czech are low in critical speech acts (cf. Salager-Meyer, 1999; 2001). The results of all these studies indicate that the frequency of occurrence and forms of academic criticism is culturally bound.

As can be seen from the increasing number of studies on this interactive pragmatic phenomenon, the issue of AC has become a

central feature in the world of scholarship. However, the ways in which the quantitative analyses of AC have been carried out vary from one author to the other. This implies that in terms of comparing consistently the frequency of use and types of AC across different genres, disciplines and languages, there should be agreement as for the application of a taxonomy which serves to accurately quantify the instances and types of rhetorical strategies that authors use to convey academic criticism. The purpose of this paper is to complement and enrich the previously mentioned research by presenting a model which can be used to classify the various rhetorical strategies that writers may use to convey academic criticism in scientific texts.

Towards a taxonomy of rhetorical strategies used to convey AC

The taxonomy of rhetorical strategies which we propose in this article builds on Salager-Meyer's (1998, 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. 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.

Salager-Meyer also divides these two types into *Direct* and *Indirect* criticism. 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[1]. In our model,

---

[1] Hedges allow writers to convey claims and, at the same time, to reduce the risk of criticism by mitigating the degree of commitment to the truth value of the propositions expressed. So

we have termed these two categories as + *hedging* (direct AC) and – *hedging* (indirect AC). In examples 1, 3, 5, 7, 9, 11 there are linguistic exponents of – *hedging* AC, whereas examples 2, 4, 6, 8, 10, 12 illustrate cases of +*hedging* AC.

We have also added a new dimension: the presence or absence of writer mediation in the criticism. We observed that on some occasions the writers of research articles[2] are explicitly present in the critical speech act. This implies a high level of commitment to the truth value of the proposition expressed, that is, writers take full responsibility for the criticism towards other authors or previous research in general, which is lexically realised by means of the first person pronouns (I/we, my/our, me/us). This has been termed *writer-mediation* following Cherry (1998) and Hyland (2001). Examples 1, 2, 3, 4 illustrate those cases of + *writer-mediation* and examples 5, 6, 7, 8 refer to those cases of – *writer-mediation.*

An in-depth examination of the texts also revealed that there were cases in which there was not only presence or absence of writer-mediation but in which it was not the author himself/herself who made the criticism, but reported the criticism made by other authors. We considered this as the opposite end of the continuum from + *writer-mediation,* and it was termed *reported* AC, as in examples 9, 10, 11, 12.

Our model has then three dimensions: i) the writer, who has several options to convey AC (with or without writer mediation, or reported), ii) the author, that is the target of criticism (personal

---

far, there is no agreement about a classification of hedging devices. In our taxonomy we will consider the use of at least the following categories: Modal expression (e.g. *may, would, perhaps*), semi-auxiliaries (*to seem, to appear*), epistemic verbs (*to suggest, to indicate*), approximators of degree, quantity, frequency and time (*little, few, often, most, some*) and extra-clausal disjuncts (*strictly speaking, surprisingly*).

[2] We arrived at the taxonomy of AC, as presented in this paper, after examining a selection of research articles belonging to a wide range of disciplines.

or impersonal), and iii) the act of criticising itself (with or without hedging devices).

The examples below are illustrations of each of the rhetorical options that writers can use to convey academic criticism, as proposed in this model. All these examples are drawn from a corpus consisting of 150 research articles published by writers working in six different disciplines. The instances of first person pronouns are in bold type and we 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*)
Research that used highly structured interaction contexts such as competition for space among children (e.g. Hapwickz & Roden, 1971), was not included in **our** analysis because **we** consider it provides a narrow, potentially biased sampling of behaviour.

Example 2 *(Writer-mediated, personal, with hedging)*
Reitan (1958) has suggested that this task is sensitive to frontal lesions. *Strictly speaking*, however, **I** believe that this task does not require the subject to determine the rules of organization.

Example 3 *(Writer-mediated, impersonal, without hedging)*
However, **we** disagree with the definitions given in previous research, as none has provided a satisfactory description of the concept.

Example 4 *(Writer-mediated, impersonal, with hedging)*
When the literature is examined, **I** have found that *few* significant studies on this phenomenon have been conducted.

Example 5 *(No writer-mediation, personal, without hedging)*
This result contradicts the finding of Duffus (1988) who argues that...

Example 6 *(No writer-mediation, personal, with hedging)*
The problem with Fonseca's approach is that it requires previous knowledge of the ranges of each objective function, which *could* be excessively expensive or even impossible *in some cases*.

Example 7 *(No writer-mediation, impersonal, without hedging)*
On the surface this assumption appears self-evident. However, this assumption is simplistic.

Example 8 *(No writer-mediation, impersonal, with hedging)*
Unfortunately, few previous studies of sepsis or related disorders have reported duration or follow up.

Example 9 *(Reported criticism, personal, without hedging)*
Eade (1992) and Indinopulos (1996), analyzing pilgrimages in Lourdes and the Holy Land respectively, object to Turner's definition of pilgrimage, especially to the communitas element.

Example 10 *(Reported criticism, personal, with hedging)*
Since data from Milner's (1963) study were based solely on seizure patients undergoing lobectomy, they *may* not be generalizable to patients with different types of damage (Robinson et al., 1980)

Example 11 *(Reported criticism, impersonal, without hedging)*
Finally, Rüchardt has pointed out that no clear relationship between the spin delocalization, as detected by ESR, and thermochemical stabilization energies has been formulated.

Example 12 *(Reported criticism, impersonal, with hedging)*
Firth (1991) noted that there is *very little* literature on the language of conversational structure of actual, naturally occurring negation.

Applicability of the model for the analysis of AC

This taxonomy has been applied to a corpus of 150 research articles published in English in highly prestigious international scientific journals belonging to the disciplines of Chemistry, Computer Sciences, Medicine, Linguistics, Psychology and Tourism[3]. Our results showed that the model presented in this paper can be used effectively to describe the different rhetorical strategies that writers can use to convey AC. However, as is extensively discussed in Burgess

---

[3] For a detailed report of the final results obtained in this study see Burgess & Fagan (2002).

& Fagan (2002), we noticed that there are a series of points that need further refinement: come limitations as regards the quantitative application of our approach to academic criticism emerged, mainly that each of the three dimensions represented in our model (i.e. writer mediation, personalization and directness) may be better understood on a continuum rather than as exclusive options.

In the classification of writer mediation it would be convenient to differentiate those cases in which the first person pronoun in the plural form is used in single-authored texts, as in these cases the degree of authorial presence is lower thus indicating the writer's intention to reduce personal attribution. Furthermore, there should also be a difference in the use of first person pronouns co-occurring with verbs of cognition (e.g. think, believe). It seems that, by using these verbs the authors display respect for alternatives, thus allowing the readers to judge for themselves. This use permits writers to introduce their criticism by conveying caution with commitment.

Another type of limitation refers to the dimension of personalization, in that a difference between implicit and explicit personalization should be taken into account: there are cases in which, although the name of the criticised author (or authors) does not appear in the text, the target of the criticism is no doubt recognised by the members of a specific disciplinary community who work on those specific topics.

As regards the directness dimension, instead of categorising the criticism as + / – *hedging*, it would be more appropriate to establish a continuum which represents a range of hedges or hedging strategies depending on the various degrees of minimization of Face Threatening Acts (Brown & Levinson, 1987). Therefore, on one end of the continuum we could set the hedging devices with lower degree of protection, and on the other end the combination of two or more hedges in one proposition which increase the degree of protection to the proposition and the author's face.

Finally, we noticed that although on most occasions it was possible to derive the target of criticism anaphorically and cataphorically, there were some occasions on which the referent was out of the text. Due to the fact that it is problematic for non-specialists to derive the target of criticism when it is expressed exophorically, we consider that, in addition to the discourse analytic studies, it would also be necessary to study the reception of critical speech acts by expert informants in the disciplines. In this way, we might at the same time gain a more precise picture of how intense the criticism seems to communtiy members. Looking at academic criticism in terms of production is another aspect that should be considered. By making some introspection on the decision making process that the members of the discouse community go through while writing academic texts, we might better understand when and why writers opt for making specific critical speech acts.

WORKS CITED

Ahmad, U. K. 1997. «Research article introductions in Malay: Rhetoric in an emerging research community» in A. Duszak, ed. *Culture and Styles in Academic Discourse*. Berlin: Mouton de Gruyter, 273-303.

Belcher, D. 1995. «Writing critically across the curriculum» in D. Belcher and G. Braine, eds. *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood, NJ: Ablex Publishing Corporation, 135-155.

Bloch , J. and **Li, L.** 1995. «A comparison of the use of citations in Chinese and English academic discourse» in D. Belcher and G. Braine, eds. *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood, NJ: Ablex Publishing Corporation, 135-155.

Brown, P. and **Levinson, S.** 1987. *Politeness: Some Universals in Language Usage.* Cambridge: Cambridge University Press.

Burgess, S. and **Fagan, A.** 2002. «(Kid) gloves on or off?: Academic conflict in research articles across the disciplines». *Revista Canaria de Estudios Ingleses,* 44 (in press).

Cherry, R. D. 1998. «Ethos versus Persona: Self-representation in written discourse». *Written Communication,* 15: 384-410.

Duszak, A. 1994. «Academic discourse and intellectual styles». *Journal of Pragmatics,* 21: 291-313.

Duszak, A. (Ed). 1997. *Culture and Styles in Academic Discourse.* Berlin: Mouton de Gruyter.

Gilbert, G. N. and **Mukay, M.** 1984. *Opening Pandora's Box.* Cambridge: Cambridge University Press.

Hunston, S. 1993. «Professional conflict: Disagreement in academic discourse» in Baker, M., Francis, G. and E. Tognini-Bonelli, eds. *Text and Technology. In Honor of John Sinclair.* Amsterdam: John Benjamins Publishing, 115-133.

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.

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.

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. and J. F. Coll, eds. *Genre Studies in English for Academic Purposes.* Vol. 9 Filología. Universitat Jaume I: Collecció Summa, 29-59.

Myers, G. 1989. «The pragmatics of politeness in scientific articles». *Applied Linguistics,* 10: 1-35.

Salager-Meyer, F. 1998. «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. 2001. «The bittersweet rhetoric of controversiality in 19th– and 20th-century French and English medical literature». *Journal of Historical Pragmatics,* 2: 141-173.

Swales, J. 1990. *Genre Analysis.* Cambridge: Cambridge University Press.

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.