

MARKET-PLACE, SELF-CONFIDENCE AND CRITICISM IN MEDICAL EDITORIALS¹

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ABSTRACT

The pragmatic phenomenon of academic conflict or criticism has been dealt with in the literature from different perspectives (quantitative, cross-disciplinary, cross-cultural/cross-linguistic, generic and diachronic). The present paper analyzes the linguistic formulation and discursive features of critical speech acts in a relatively unexplored meta-textual genre of scientific prose, viz., medical editorials (ED). The results obtained show that the rhetorico-pragmatic features of critical speech acts in that particular debate-focused and essay-like genre (their assertiveness, unhedginess, authoritativeness, self-highlightedness and self-confidence) as well as their frequently sarcastic, ironic and condescending tone correlate with the social role of editorialists who are commissioned writers considered by the scientific community they belong to as advice givers, decision orientators and critical expert knowledge-holders /builders. These socio-discursive features, in turn, reflect the polemical, argumentative and persuasive communicative function of ED within the medical profession.

KEY WORDS: Editorials, medical English, academic criticism, status and power.

RESUMEN

El fenómeno pragmático de la *discrepancia o crítica académica* se ha tratado desde diferentes puntos de vista (cuantitativo, interdisciplinar, intercultural, interlingüístico, genérico y diacrónico). Este artículo analiza la realización lingüística y las características del discurso de las expresiones que manifiestan desacuerdo en un género de la prosa científica relativamente inexplorado aún: el editorial médico. Los resultados del estudio muestran que, en dicho género, tanto los rasgos retórico-pragmáticos de estas expresiones como el tono de las mismas, frecuentemente cargado de sarcasmo, ironía y superioridad, guardan relación con la función social del autor a quien se encarga el editorial, que suele ser alguien a quien la comunidad científica considera un experto con capacidad crítica y probada autoridad intelectual. Las mencionadas características son, a su vez, reflejo de la función argumentativa y persuasiva del editorial en el contexto de la profesión médica.

PALABRAS CLAVE: Editoriales, inglés médico, crítica académica, estatus y poder.

To the extent that science is a search for the reason that lies behind an observation, the study of rhetoric is part of the scientific tradition.

Richard Horton. Editor of *The Lancet* (1995: 985)



1. INTRODUCTION

The great majority of scientific journals and grant awarding bodies proudly adhere to the rigors of peer review despite the striking lack of research into either its efficacy and/or its reliability (Rennie 1998a and Rennie 1998b, Goldbeck-Wood 1999, van Rooyen et al. 1999).² But this system of collegiate accountability frequently ignores a factor that scientists may consider too trivial to devote much attention to: the manipulation of language to convince the reader of the likely truth of a claim. As Horton (1995) so rightly argues, just as the qualitative review of research requires knowledge about the topic of that particular research, and just as statistical assessment demands mathematical skills, so the analysis of argumentation requires an understanding of the tools of persuasion available to the writer. “*To interpret a result correctly, reviewers, statisticians, editors and readers should know the conscious and unconscious tricks of authorial rhetoric*” (Horton 1985: 985). Greenhalgh (1985: 987), however, responds that such a statement might entice the reader into the unjustified assumption that this ‘spin’ is necessarily “*evil, insidious, and the last remaining bastion of caprice in the otherwise objective terrain of scientific publication.*”

Be that as it may, we cannot deny the fact that scientists (who should ideally be fair-minded and balanced in outlook) use their power as owners of their writing to emphasize one point of view rather than another with the aim of convincing their readership. That this important aspect of the rhetoric of science should not be underestimated is something that is emphasized by Horton, who further adds that critical linguists should analyze how medical writers use language to support their point of view. The editor of *The Lancet* cogently expresses that idea in the following terms: “*Such an analysis is part of the critical culture of science and would be a welcome third component of peer review in addition to qualitative and statistical assessment*” (Horton 1995: 985).

The issue of academic conflict or criticism in scientific discourse (how direct or veiled it is and through which linguistic means it is either straightforwardly expressed or subtly, mitigated) is an analytical task for the critical linguist. Also called professional disagreement (Hunston 1993), the pragmatic phenomenon of criticism in academic prose has been dealt with from various perspectives: either from a purely quantitative point of view (Chubin and Moitra 1975, Moravcsik and Murugesan 1975), from a cross-cultural/cross-linguistic standpoint (e. g., Nguyen 1988, Do 1989, Farrell 1997), from a diachronic perspective (Gunnarsson 2001), from a combined diachronic and cross-linguistic/cultural viewpoint (Salager-Meyer

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² For a detailed account of the unreliability of the peer review process in medical research, see the special issue of the *Journal of the American Medical Association* (JAMA) 280 (1998).

2000, Salager-Meyer and Zambrano 2001, Salager-Meyer and Alcaraz Ariza 2001) or from a cross-disciplinary angle (Motta Roth 1998). To my knowledge, however, no study has focused on the cross-generic aspect of criticism in academic writing, and I pretend to partially fill that gap with the present paper which analyzes the linguistic formulation of criticism in medical editorials (ED), a genre³ that has so far been relatively unexplored (Flöttum 1998, Connor 1996) in spite of the fact that ED play an important role in scholarly communication. Indeed, ED (in general single-authored meta-textual texts)⁴ not only assist readers in understanding and interpreting the results of a specific or general nature put forward in randomized clinical trials —thus submitting the importance of new findings to discussion and strengthening what Sniderman (1999: 354) calls “*the irreplaceable and invaluable instruments of medical research*”—, but they also help scientists in that complex process of getting more insight into the principles of evaluating evidence and/or into non-clinical topics such as ethical questions related to medical practice. In that sense, then, ED function as a channel or a link between research- and practice-oriented text and represent the part of the journal in which writers address themselves most directly to their readership (Muller 1999).

A few studies have however contributed to our knowledge of that specific genre. I am especially referring here to Valle's thesis (1999) on the different roles ED and research articles play within the profession and on how these roles are reflected by different argumentative strategies and expressions indicating epistemic certainty and/or likelihood. Editorials have also been approached from a cross-cultural perspective by Dantas-Whitney and Grabe (1989) who compared ED written in Brazilian Portuguese and in English, and by Tirkkonen-Condit and Liefländer-Koistinen (1989) who studied English, German and Finnish ED. These comparative studies have shown that the style in which arguments are presented in ED, the strength and placement of the argument statement, and the desire to build consensus rather than to divide are culturally determined. The specific issue of the pragmatics of conditionals in medical discourse (*inter alia*, in ED) and the interesting potential use of ED as pedagogical material in ESP classes have been recently dealt with by Ferguson (2001).

³ It seems that there is still no consensus within our discourse community about the difference between ‘*text-type*’ and ‘*genre*.’ Some writers (e.g., Devitt 1991, Dudley-Evans and St. Johns 1998) use both terms synonymously, whereas Taavitsainen (2001) keeps them apart. Ferguson (2001), in his study of conditional in medical discourse, considered three *genres* of medical texts: research papers, editorials and doctor-patient consultations. Grabe and Kaplan (1997) analyzed 5 *text-types*, among them newspaper editorials. Posteguillo (2000) refers to the ‘*research article*’ as the most frequently studied *genre*. At any rate, I decided to use the term ‘*genre*’ in keeping with the other works published by our research group on medical discourse (Salager-Meyer 2000, Salager-Meyer and Zambrano 2001 and Salager-Meyer and Alcaraz-Ariza 2001) and with other linguists who considered ED as *genres* (Connor 1996, Flöttum 1998).

⁴ In a meta-textual text, the author presents his/her personal view of another text.



2. PURPOSE

The present study forms part of an on-going wider cross-generic and cross-cultural/linguistic research project whose objective is to analyze, both qualitatively and quantitatively, the linguistic ‘framing’ or rhetorical strategies used by researchers to formulate critical speech acts in four different genres (see footnote 2) of naturally occurring medical discourse written in English, French and Spanish: editorials, research papers, review articles and case reports. In this paper, as I said before, I will report the qualitative results obtained from our English ED sub-corpus.

In keeping with the tradition of the latest genre studies that analyze the concept of ‘genres’ in relation to their social contexts and view them as social constructs (see Arden-Close 1990, Rice 1991 and Freedman and Medway 1994 for a survey of genre studies), a corollary purpose of this paper is to try to relate the linguistic expressions used to express criticism in ED to various socio-pragmatic and/or socio-discursive features: 1. the communicative function of ED; 2. the level of knowledge claim characteristic of that genre; and 3. the rank/status power relations that exist between editorialists and their audience (a dimension similar to the ‘tenor’ component of discourse for systemic genre analysts such as Halliday and Hasan 1989) as well as audience expectations. I believe it is particularly important to take into account this last socio-discursive feature because, as Kress (1986: 112) argues, “each specific genre encodes different power relations between writer/speaker”.

All in all, then, the approach adopted here is socio-pragmatic in that the ED selected (see Materials section below) are analyzed in relation to the context of their use, their communicative function and their institutional setting.

3. MATERIALS

The present study is based on a domain specific corpus of contemporary English prose made up of 20 randomly selected medical ED totaling a number of 26.342 running words and published in the last 2 years of the past century (1999-2000) in mainstream non-specialist medical journals. The identification of ED was not a difficult matter since it was based on text-external factors only (i.e., not on internal, linguistic criteria).⁵ The sample texts selected can therefore be considered as “*prototypical exemplars of the genre*” (Swales 1990: 52).⁶

⁵ The genre of the papers published in medical journals is today clearly identified on the cover page of most medical journals.

⁶ The notion of ‘prototypicality’ is particularly important in genre studies. The term refers to the way in which properties such as communicative function, form, structure and audience expectations “*operate to identify the extent to which an exemplar is prototypical of a particular genre*” (Swales 1990: 52).

The choice of ‘high brow’ (Halliday and Martin 1993: 54) or learned journals from which I sought the 20 ED was made on the basis of two specialist informants recommendations, both active researchers and fluent readers of English. But, in order to minimize the effect created by relying too heavily (or solely) on subject specialist informants (subjective features such as personality, allegiance or status may indeed influence recommendation), I also resorted to Garfield’s ranking of journals in the Journal Citation Report of the Science Citation Index. This procedure allowed us to select the top level, most prestigious journals with the highest impact in the field of medicine, such as *The Lancet*, *The British Medical Journal*, *The New England Journal of Medicine* and *The Journal of the American Medical Association*.

The 20 ED I selected were then professional texts, i.e., articles intended for medical professionals with different levels of expertise: practitioners, researchers and graduate students. In other words, the authors and audience of the texts I analyzed were scientists and/or academics and the message form, channel and code were identified as those of standard written English.

4. METHODS

Since I am concerned here with the repertoire of rhetorical (formal) strategies used by English-speaking background scientists to express their dissension towards previously published research, the linguistic realizations of the statements which reflected a discrepancy between the stance of the editorialist on the one hand, and that of fellow scientists (or of the scientific community as a collective entity) on the other, were manually-searched and recorded in each one of the 20 ED analyzed.

Because in a text-based study (such as the one reported here), texts are read and interpreted by one observer only, the question is often raised as to whether this is not too subjective an approach and whether other analysts would not obtain different results. As a response to this subjectivity problem, and following Valle’s recommendation (1999) that “*a project in which the study is outside the writer’s own discipline necessarily requires help from members of the scientific community under study,*” I sought the cooperation of the two above mentioned specialist informants whenever doubt arose concerning critical speech act identification. In case of discrepancy between the two informants, I discarded the example.

5. RESULTS AND DISCUSSION

Critical speech acts are very frequent in ED to the point that 6 of the 20 ED I analyzed almost exclusively consisted of pungent and forceful criticism of papers published in the same issue of the journal. One of the most salient rhetorical features of these criticisms lies in their authoritative, direct, unhedged and assured tone of voice, accompanied quite frequently by condescension, humor and/or sarcasm as examples 1 and 2, drawn from an ED provocatively entitled “*Does*



stress cause cancer?” clearly illustrate (notice the exclamation point at the end of example 1).⁷

1. In 1893 Snow presented what might be the first statistical summary of the psychological characteristics of patients with breast and uterine cancer. Some 250 women with these cancers were described as having a ‘general liability to the buffets of ill-fortune.’ *One hundred years later we still find researchers preoccupied with showing whether stressful life events are related to cancer* —as in this week’s study by Protheroe. *Many clearly believe that life is more stressful than ever and that one consequence of this ubiquitous stress is disease, including cancer!*
2. Retrospective recall of life events in the five years before learning whether a breast lesion is malignant or benign *constitutes a relatively weak test of the hypothesis...* *In Protheroe et al’s study, even this most basic safeguard against recall bias was ignored* as 30% of the women with cancer knew their diagnosis by the time they were interviewed.

Also humorous and sarcastic are examples 3 and 4 taken from an ED on the British Service Framework for Mental Health. The use of the attitudinal verb ‘*claim*’ in example 3 is interesting because it by itself implies a disagreement between writer and original research (see Leech 1983 and Thompson and Ye 1991 for a thorough classification of attitudinal verbs), thereby giving the reader a hint of the writer’s attitude toward the propositional content of the utterance. As Swales and Feak (1995) point out when referring to Western academia, authors imply their attitude towards a source through the choice of reporting verbs.

3. The National Service Framework for Mental health has just been published... In his introduction, Frank Dobson claims that these national standards are founded on “a solid base of evidence”... The framework has set itself ambitious objectives. Has it succeeded? *The answer is the same as the response to asking whether it is wise to plant a tree in a desert. It is churlish to give a negative response as planting trees in deserts is a noble enterprise.*

Other disagreement speech acts in that same ED are voiced in an acid, caustic and pungent way:

4. Divadia et al. *try valiantly to give sustenance to these and some other standards that are really no more than political slogans, but they cannot win.*

⁷ In each example, the italics are mine. They draw the reader’s attention towards the critical speech acts themselves.

The previous examples (1 to 4) clearly illustrate the fact that rival theories come and go and that doctrinal schisms are common in medical science (as I would suggest they are in most sciences). Nowhere than in the ED genre of medical writing is this more clearly put to the fore because it is precisely in ED that writers—who are commissioned by journal editors (Régent 1992 and Horton, personal e-mailed communication) and are thus considered by the scientific community as experts with a well-established status in their field—evaluate scientific research in a certain light and try to persuade the reader of the correctness and soundness of their posture (Grabe and Kaplan 1997).

A criticism frequently voiced in ED relates to a piece of work which lacks not only the desirable quality of elegance but also the necessary qualities of thoroughness and reliability. The sarcastic, direct and ironic tone with which the criticism is formulated in example 5 can readily be appreciated:

5. Professor Graham Thornicroft's document proposes a coordinated national framework where only a few oases of excellence exist, *supported more by internal forces of ramshackle intimacy than by the discipline of external scientific standards... and out of the desert rise a set of guiding principles...* The first standard is... *What a standard!...* Even fewer could disagree with the sentiments of this than with mom and apple pie, but how can this be measured and monitored?

A frequent interpretative rhetorical strategy found in the critical speech acts recorded in the ED sample under study lies in the use of boosters, intensifiers or emphatics, the rationale of which is to increase the illocutionary force of the author's involvement (Régent 1992, Grabe and Kaplan 1997, Vihla 1999, Ferguson 2001). Moreover, these boosters are quite frequently accompanied by deontic modals such as *'should'* and *'must'*⁸ which are one of the features indicating overt (direct) expression of persuasion (cf. Biber's multidimensional analysis of texts, 1988). Undoubtedly, the presence of a deontic modal in a critical speech act renders the criticism even more persuasive and convincing. Strong author involvement is expressed through the use of the deontic modal *'should'* along with the booster adverb *'emphatically'* in example 6, and by the booster adverb *'certainly'* in example 7, both taken from an ED on the role of genes in maternal nutrition.

6. It should be emphatically stated that *the direct relevance of these animal models to human has not been adequately assessed*, particularly with regard to maternal nutrition.

⁸ Deontic modals are also called 'necessity modals' in opposition to epistemological, possibility or probability modals (*'may'*, *'might'*, *'can'*), the latter being much more frequent in research articles than in ED (Vihla 1999).



7. *It is certainly unclear to what extent these studies can control for such large age differences in their analyses.*

Not infrequently, criticisms in ED refer to the fact that scientists should not jump to hasty conclusions. Indeed, unwarranted conclusions might be drawn in spite of the fact that research evidence is so far inadequately deployed and thus fails to relate closely enough to the author's claim (ex. 8 and 9):

8. Few studies have addressed young men's involvement in decisions about termination of pregnancy, though one qualitative study of the attitudes of teenage boys showed a desire to be involved and to receive emotional and social support. *Unfortunately, little research has been done into the possible emotional sequelae of termination decisions for men...* Three broad approaches exist to improving men's participation in activities concerning sexual health, though there is *a frustrating lack of evidence to show that these initiatives will have social and clinical impact.*

The adverb '*unfortunately*' and the adjective '*frustrating*' in example 8 reflect the author's strong emotional involvement in his statement or, as Adams-Smith (1984) so aptly put it, the writer's injection of his/her personality into scientific writing. Another example of criticism pointing to lack of empirically-based evidence to sustain a hypothesis that some clinicians however uphold is the following:

9. David Baker, who has pioneered the fetal origins hypothesis, emphasizes the importance of improving maternal nutrition... However, *direct human evidence* from epidemiological studies implicating maternal nutrition and diet *is sparse and fragmentary.*

Methodological flaws in previously published research are also sometimes alluded to in ED:

10. *Jacobs' et al. trial was too small to show efficacy in terms of mortality reduction.*

As the majority of the previous examples show, most critical speech acts in ED are directed to researchers who are clearly identified by their surnames, and sometimes even by their first names. Some of these speech acts, though, are directed to governmental entities or medical practitioners who do not take the necessary measures to prevent the spreading of a disease (ex. 11) or to an undue slowness in the divulgation of research results for the lay public (ex. 12):

11. Although there is ample evidence that radon in houses is second only to smoking as a cause of lung cancer, the directors of some public health departments *are unwilling to accept that any risk exists.* In addition some radiotherapists *are proving slow to accept that radiotherapy regimens for cancers... needs review.*



12. *Epidemiologists and statisticians are too slow* to communicate their results to journalists and the general public.

Finally, the highly personal character of criticisms in ED is frequently linguistically expressed through the use of the first personal pronoun or possessive adjective (ex. 13 and 14) which, moreover, underlines the writer's expert status. As Korhonen and Kush (1989) hold in their study on philosophical texts, a "position of authority" correlates relatively highly with the use of direct reference to the first person.

13. *I cannot agree* with the authors of that paper.
14. In my opinion, existing data are far from sufficient. *Contrary to what Mangano and Goldman assert, no definitive recommendation can be made.*

The assertiveness, straightforwardness and authoritativeness with which the critical speech acts are voiced in examples 1 through 14 mirror the fact that authors of ED tend to consider themselves as "superior" to their readers (this, in turn, explains, their sometimes condescending tone). Editorials are not examples of peer-to-peer discourse. On the contrary, as I said before, editorialists are implicitly considered by the scientific community as a) '*expert knowledge holders*' (Ferguson 2001) who can indulge in expressing themselves in a "quasi-political" style by expressing their dissension in a highly personal, self-confident and sarcastic (sometimes even denegrating) tone, and b) as advice-givers and orientators whose intentions is to help clinicians and practitioners in the complex decision-making process of everyday medical praxis. It is worthwhile mentioning that the general tone of criticism in today's medical ED and their highly personal character (i.e., their strong involvement) are features which were found to be characteristic of the way 19th- and early 20th-century medical writers used to express their discrepancy in *any* medical genre when dissenting with their fellow scientists (Salager-Meyer and Zambrano 2001), i.e., not only in ED, but also in what were then called '*original papers*' (today's research papers) and '*lectures*' (today's review articles).

The variety, richness and highly self-promotional flavor of the linguistic realizations of critical speech acts in examples 1 to 14 also reflect the fact that ED are debate-focused, essay-like metatexts⁹ —or "*discourse on discourse*" (Vihla 1999: 127)— directly related to a primary text in that their communicative function is much more than that of merely repeating arguments expressed in pre-existing texts. Their primary and fundamental function is, in fact, that of arguing persuasively (cf. Régent 1992, Ferguson 2001, Vilha 1999, Carvalho 1999 who interestingly argues that the argumentative structure of ED would be worth examining through reading

⁹ The essay-like nature of ED can readily be appreciated in the way their titles are formulated.

classes), of assessing previously published papers, commenting on their hypotheses and trying to convince the reader to adopt the editorialist's own stance.¹⁰ This is why Vihla (1999: 111) so adroitly remarks that Francis Bacon's metaphor of 'den' and 'marketplace' can be applied to academic papers, ED pertaining to the 'marketplace' of the research community.

5. CONCLUSIONS

This paper represents a small contribution to the growing body of research on genre studies and on critical speech acts in scientific prose. It aimed at explaining the discursive choices made to convey professional disagreement in medical editorials by relating these choices to the genre specific communicative function, its level of knowledge claim and author's status-audience relationship.

In the essay-type of text represented in this study by medical ED, the writer/author plays the role of a self-confident, self-highlighted, authoritarian critical expert and decision-orientator with a well-established status assigned by the scientific community s/he belongs to. Editorialists can therefore indulge in directly and harshly criticizing their peers in a sometimes condescending and sarcastic fashion. While discussing issues of interest to the scientific community at large, editorialists strive to convince their readers and invite them to take part in paradigm formation.

The position of authority assumed by editorialists and their responsibility as knowledge holders, knowledge builders and/or decision-orientators then correlate highly with the linguistic formulation of their criticisms. The discursive features of the critical speech acts reported in the present study can be said to reflect the communicative function of ED within the medical profession which, in turn, determines the social roles of the writers.

The observed rhetorical features of criticisms in medical ED could perhaps explain why medical journal editors expect that authors of ED (and of review papers, although to a lesser extent) do not have any on-going financial interest in or association with a company (or its competitor) that produces a drug/device discussed in an ED. The company might indeed stand to gain from the recommended use of that product (Angell and Kassirer 1996). In fact, since 1990, *The New England Journal of Medicine* adopted a policy that prohibits editorialists and authors of review articles from having any financial connection with a company that benefits from a drug or device discussed in an ED (Relman 1990).¹¹

¹⁰ It should be noted, however, that an article may have more than a single function (Paltridge 1997: 86). As Bazerman (1994) observes, just as a speech act may serve a number of different functions, so too may a genre. That is, a text may have the function of 'persuading' or 'arguing a case', even though the salient communicative aim of that text is that of, let's say, 'introducing'.

¹¹ It is worthwhile mentioning that such a policy is an extension of an earlier one adopted by the same journal in 1984 which required authors to disclose their financial connections with

Further carefully conducted qualitative and quantitative studies are needed to verify the qualitative tendencies noted here and to determine whether the present findings can be extended to other fields and in other naturally-occurring corpora written in languages other than English. In Connor's words (1996:144): "*Research on editorials cross-culturally is significant even if ESL students do not become editorial writers for, in most cases, they are readers of editorials... At the present, little is known cross-culturally about the genre.*"

industry (Relman 1984, Angell and Kassirer 1996). After the *New England Journal of Medicine* instituted its 1984 policy requiring disclosure of conflicts of interest, other major medical journals adopted similar policies to the point that today not only must editorialists mention the presence or absence of a conflict of interest but also authors of research and review articles. Indeed, the increasing involvement of researchers in commercial activities makes the policy all the more important. As Angell and Kassirer (1996: 1056) explain: "*Readers must be able to rely on editorialists to be disinterested.*"



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