From Self-Highlightedness to Self-Effacement: A Genre-Based Study of the Socio-Pragmatic Function of Criticism in Medical Discourse

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> *"A naturalist life would be a happier one if he had only to observe, never to write"*
> Charles Darwin

1. Introduction

The study of the rhetoric of academic conflict -- also referred to in the literature as '*professional disagreement*' (Hunston 1993: 117) or '*assertion polémique*' (de Nuchèze 1992: 205) -- has been dealt with from various standpoints. To start with from a <u>very general perspective</u>, it has been repeatedly stated that today's' Anglo-American scientists meticulously avoid personal attacks in order to maintain a free flow of information and avoid antagonizing those within the academic world (Ziman 1968, MacRoberts and MacRoberts 1984, Myers 1989, *inter alii*). It has also been said that, when challenging previously published results and/or conclusions, Anglo-Saxon academics abundantly resort to the use of epistemic modality or subtle hedging strategies so as to maintain rapport and minimize potential face-threatening counter-criticisms (e.g., Belcher 1995, Schramm 1996, Vihla 1999 and Hemais 2001). Chubin and Moitra (1975) and Moravcsik and Murugesan (1975), for their part, focused on the <u>quantitative</u> aspect of the problem and reported that total criticism and even *"partial negational references"* are rare in English academic writing. Another quantitative analysis examined critical comments in the context of peer-reviews of papers written by non-native English

speaking scientists (Kourilova 1996). Criticism in the specific genre of <u>academic book reviews</u> has been quite extensively studied by Motta-Roth (1988) who discusses the issue from a cross-disciplinary perspective; by Hyland (2000) who dedicates a whole chapter of his book to the study of both praise and criticism in that particular genre and by Salager-Meyer (2000) who carried out a diachronic analysis of critical comments in medical book reviews .

The issue has also been interestingly addressed from a <u>cross-linguistic/cultural standpoint.</u> We could cite here the research conducted by Nguyen (1988), Do (1989) and Farrell (1997) on arguing (*inter alia*, on rejecting others' position) in Vietnamese students' papers; the studies carried out by Taylor and Chen (1991) and Bloch and Li (1995) in Chinese academic prose; the work of Ahmad (1997) on Malaysian scientific discourse; that of Duszak (1994, 1997) on German, Polish and Czech scientific discourse and finally that of Salager-Meyer (2000) on French medical literature. These studies point to the fact that Asian academics tend to avoid focusing on previous research gaps and shortcomings -- i.e., they rarely criticize or evaluate previously published research--, while French-speaking scientists, when dissenting with their peers, tend to be much more authoritative, categorical and personal than their Anglo-American counterparts. For their part, Salager-Meyer (2000), Salager-Meyer and Zambrano (2001) and Salager-Meyer and Alcaraz Ariza (2001) recently added a <u>diachronic</u> dimension to the <u>cross-cultural/linguistic</u> above mentioned perspective. Their research into written medical discourse indicates that 19th and early 20th century Anglo-American scientists were much more aggressive, personal and direct when expressing their disagreement than their late 20th century counterparts who tend to linguistically realize their discrepancy in a much more matter-of-fact and impersonal fashion. By contrast, the linguistic formulation of criticism in both Spanish and French medical prose has not substantially changed over time, i.e., today's native French- and Spanish-speaking scientists remain, as a whole, as arrogant when dissenting with their peers as they were in the late 19th century. It is then quite clear from this review of literature on academic conflict (abbreviated in the present study as AC) that the verbalization of critical speech acts in scientific discourse is not only language- and culture- but also epoch-bound.

All these studies are undoubtedly important and they all have in their own way shed light on our understanding of academic conflict. To my knowledge, however, no research on that topic has been carried out from a cross-generic perspective, and I believe that the gap needs to be filled. To support my stance, I would like to cite Johnson and Roe (1992: 32) who, referring to complimenting in academic writing, assert that: *"It is important to consider genre in any study of complimenting in texts"*. Now, my contention is that complimenting (or praising) and criticizing are the two sides of the same coin, or, as Hyland puts it (2000: 44), they are "*polar comments"*. I therefore argue that Johnson and Roe's statement could be extended to 'criticizing in texts', and that a thorough and balanced approach to addressing the issue of conflict in academic prose should also involve examining how scientists

express their criticisms in "*the context of particular genres*" (Paltridge 1997: 102-103) within a specific field. As Hyland (2000: 45) so rightfully expresses:

> *Most of the research on compliments and <u>criticisms</u> has occurred within a framework based on politeness, has examined speech and focused on complimenting behavior .... but there is <u>little work on how this may vary in particular genres and contexts.</u> <u>Our knowledge of how criticism is expressed is likewise very limited</u>.* (The underlining is mine)

It is then my intention here to build on, complement and enrich our knowledge of criticism in scientific writing by applying a so far unexplored "*transversal* " (Resche 1999: 360) --i.e., <u>cross-generic</u> and '<u>monodisciplinary</u>' -- approach to the study of that pragmatic phenomenon. In this respect, and supporting Hyland's point of view, Resche (1999: 36) emphatically points out that "*les approches transversales qui consistent á comparer plusieurs genres dans une même discipline sont aujourd'hui indispensables*"[2].

2. Purpose

The aim of the present research is then to analyze how the linguistic 'framing' of AC varies in four different genres[3] of naturally occurring medical discourse written in English: editorials (ED), research papers (RP), review articles (RV) and case reports (CR). Now, 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 Freedman and Medway 1994 and Paltridge 1997 for a survey of genre studies), it is also our purpose to relate the variations observed (if any) to various socio-pragmatic and/or socio-discursive features: 1. the communicative function of each genre; 2. the level of knowledge claim characteristic of each genre; and 3. the rank/status power relations that exist between authors 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 important to take into account this last socio-discursive feature

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[2] "Transversal approaches that consist in comparing various genres within the same discipline are today absolutely necessary". (The translation is mine.)

[3] As a matter of fact, the notion of '*genre'* has been central in the analyses of professional language of the last decade or so (cf. Swales 1990, Bhatia 1993, Bazerman 1998, Paltridge 1997). However, 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 Taatvitsainen (2001) keeps them apart. In his study of conditional in medical discourse, Ferguson (2001) 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 carried out by our research group on scientific discourse analysis (e.g., Salager-Meyer and Zambrano 2001, and Salager-Meyer and Alcaraz Ariza 2001).

because as Kress (1986: 112) argues: "*Each specific genre encodes different power relations between writer/speaker*" [4]

To sum up, then, the purpose of this cross-generic and socio-pragmatic research is twofold and aims at answering the following questions:

1) To what extent do the rhetorical strategies used by Anglo-American medical researchers when conveying their disagreement or dissension reflect the writer's commitment or his/her detachment in the four genres under study?
2) How can the author's commitment/detachment be explained in terms of the genre specific communicative function, i. e., of the role each genre plays within the medical research community? [5]

3. Materials

The present study is based on a domain specific corpus of contemporary Anglo-Saxon prose made up of 50 randomly selected medical papers published in the last 2 years of the 20th century (1999-2000) in mainstream non-specialist medical journals. These 50 full-length papers were divided, as I said before, according to the following four genres characteristic of professional texts in the medical profession[6], viz., 20 ED, 10 RV (including meta-analyses)[7], 10 RP and 10 CR. The genre category assignment was not a difficult matter since it was based on text-external factors only (i.e., not on internal, linguistic criteria): the genre of the 50 articles selected was indeed clearly identified on the journal cover. We can

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[4] It is also important, I think, to consider that dimension because the bulk of the literature addressing the issue of 'commitment/detachment' treats it exclusively as modality, as attitude towards knowledge (Chafe 1982) or as "*items of language which a speaker uses to explicitly quantify his/her lack of commitment to the truth of the proposition s/he utters*" (Crompton 1997: 281), i.e., along an author-knowledge axis of text production, thus excluding the author-audience axis and the relation between a text and the society in which it is embedded.

[5] It has now been well established that gender of audience and of writers is an important concern in the construction of discourse (e.g., Holmes 1988, Johnson and Roe 1992). Unfortunately, the nature of the corpus under study (see *'Materials'* section) precluded us from taking this variable into account. It should be stated, however, that it has also been shown that gender differences tend to melt away when situational equality is achieved, which is the case in the present corpus. As Poynton (1989: 79) indeed suggests: "*the greater the equality between interactants, the more likely they are to behave linguistically in parallel or symmetrical ways.*" I thus contend that the fact that I did not take the writers' gender variable into consideration in the present study did not mask important sociolinguistic phenomena.

[6] There are of course other medical *genres* such as *'value-added abstracts'* (cf. Vihla 1999), advertisements using medical language and letters to the editor in which "*'ad-hominem' attacks abound* ' (Régent 1992: 70). But these genres were not taken into consideration in the present study.

[7] Meta-analyses are a relatively new *genre*: they represent a quantitative approach to analyzing pooled data from various studies. Most commonly, meta-analysis are used to combine data from randomized controlled trials to increase sample size and reduce uncertainty.

therefore consider that the papers I examined were all "*prototypical exemplars*" (Swales 1990: 52) of each genre. [8]

The choice of '*high brow*' (Halliday and Martin 1993: 54) or learned journals from which I sought the 50 sample texts 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 the selection of 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 50 articles examined 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.

I should finally point out that, for the corpus under study to be representative of native English scientific writing, articles were included only if the authors (at least the first author) had an English surname and was affiliated to a British, Canadian, Australian or North American hospital, university or institution.

4. Methods

The method used in the present study is quite straightforward. Since I was concerned with the repertoire of rhetorical (formal) strategies used by Anglo-American scientists to express their AC, the linguistic realizations of the statements which reflected a discrepancy between the stance of the writer and that of fellow scientists' knowledge claims (or that of the scientific community as a collective entity) were manually-searched and recorded in each one of the 50 papers examined. Then, I analyzed the tone and the personalization of the AC, their directness/indirectness and the writer's depth of involvement/detachment.[9]

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 and whether other analysts would not obtain different results. As

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[8] The notion of '*prototypicality*' of genre is indeed quite 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)

[9] For a more detailed explanation of the procedure followed, see Salager-Meyer and Zambrano (2001).

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 asked the cooperation of the two above mentioned specialist informants whenever doubt arose as to the correctness in AC identification. In case of discrepancy between the two informants, I discarded the example.

5. Results and discussion

A. Editorials (ED)

Academic conflicts are very frequent in ED to the point that 6 of the 20 ED analyzed almost exclusively consisted in pungent and forceful criticism to papers published in the same issue of the journal [10]. Editorials -- generally single-authored texts no longer than 1.500 words (Beaufrère-Bertheux 1997)-- essentially present the writer's opinions and interpretation of medical literature. They frequently (but not always) discuss issues of a specific or general nature that cannot be justified with empirical evidence in the same way as scientific claims in research papers are (see *Research Papers* sub-section V. C below). Editorials also sometimes address non-clinical topics such as ethical questions related to medical practice. It is important to mention here that medical editorialists are commissioned by journal editors (Richard Horton, Editor of <u>The Lancet</u>, personal e-mailed communication) and are thus considered by the scientific community as experts with a well-established status in their field. (For a more in-depth analysis of the role of ED in medical research, see Salager-Meyer 2002).

One of the most salient rhetorical features of AC in editorials lies in their authoritative, direct, unhedged and assured tone accompanied quite frequently with condescension, humor and/or sarcasm as examples 1 and 2 below clearly illustrate. Example 1 is drawn from an ED polemically entitled "*Does stress cause cancer?*":

> 1. It is arguable whether the <u>methods</u> used in the studies of Protheroe et al. and Chen et al. <u>could ever represent an adequate test of the hypothesis</u> of a link between stress and cancer. Retrospective recall of life events in the five years before learning whether a breast lesion is malignant or benign <u>constitutes a relatively weak test of the hypothesis</u>.... In Protheroe et al's study, <u>even this most basic safeguard against recall bias was ignored</u> as 30% of the women with cancer knew their diagnosis by the time they were interviewed. [11]

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[10] We are currently carrying out a quantitative analysis of AC in the different genres examined here in order to be able to refer to the cross-generic frequency of occurrence of AC and their referential foci with precise quantitative data.

[11] In all the examples, the underlining is mine, and its purpose is to draw the reader's attention to the AC. The italicized words/expressions (examples 14 on) refer to modulated/hedged AC. Asterisks refer to bibliographical references that are mentionned at the end of the paper.

Example 2 was taken from an ED that critically appraises a document recently published by the *British Service Framework for Mental Health.* In that example, the editorialist resorts to several rhetorical tricks that all reinforce his sarcastic and mocking tone, his disagreement and profound skepticism towards the ambitious objectives of that document, viz., the use of the reporting verb '*to claim',* the punctuation used (e.g., exclamation points, inverted commas) and the repeated use of rhetorical questions:

> 2. In the Introduction of the *National Service Framework for Mental Health* , Frank Dobson claims that the national standards presented are founded on a "solid base of evidence." The first standard is to 'promote mental health for all and combat discrimination against individuals and groups with mental health problems'. What a standard! .... How is it measured and monitored? .... The third standard includes the ability "to use (the new telephone line) NHS direct, for first level 'advice'" on mental health problems. What do the monitors do? Tap the phone and listen to the advice, count the calls or test the ability of sufferers physically (sic) to dial the correct number? No evidence is given that phoning help lines is of value: indeed, such evidence that does exist (sic) suggests that for some group it may do harm. No information is given about the training and expertise of these telephone supercounsellors and how general practitioners are expected to cope with this splitting of care.... Supporting the aims of improved quality in the NHS is possible but certainly not helped by the overblown language of this document.

These two examples illustrate the fact that rival theories come and go and that doctrinal schisms are common in medical science (as in most sciences, I would say). 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 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, Vihla 1999).

A frequent interpretative rhetorical strategy found in ED criticisms lies in the use of boosters or intensifiers (e.g., the adverb '*certainly'* in example 2 above and 4 below), the rationale of which is to increase the illocutionary force of the author's involvement. Moreover, these boosters are quite frequently accompanied by deontic modals such as '*should'* and *must'* [12] 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 an AC renders the criticism even more persuasive and convincing. The strong author's involvement -- or, as Adams-Smith' (1984) so aptly put it, the writer's injection of his/her personality into scientific writing -- is expressed through the use of the

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[12] 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 RP than in ED (Vihla 1999).

deontic modal *'should'* and the emotionally-charged adverb "*unfortunately*" in example 3, and the booster adverb *'certainly'* in example 4.

3. <u>Unfortunately</u>, the terminology for defining adenocarcinoma of the proximal stomach <u>is not standardized</u>, and it <u>should</u> be.

4. It is <u>certainly unclear</u> to what extent Shawn's et al. and Leon's et al. studies could control for such large age differences in their analyses.

Not infrequently, AC in editorials refer to the fact that scientists should not jump to hasty conclusions because research evidence is inadequately deployed and fails to relate closely enough to the conclusions. This is clearly illustrated by example 5 below (as it was in example 2 above) where, moreover, the use of the verb *'believe'* conspicuously anticipates the editorialist's dissension with the conclusion reached by the author of the paper he is discussing:

5 . Lot and colleagues in France report what they believe to be the first case of HIV transmission from an infected surgeon to a patient during a surgical procedure. <u>The evidence to support their claim is not entirely conclusive ... because the mechanism and date of transmission could not be established with certainty</u>.

Methodological flaws are also sometimes alluded to in ED (though, as we shall se later, much less frequently than in RV). Here again, the criticism is very directly and personally expressed (example 4 above and 6 below).

6. Hendel and Shaw weighted individual factors on the basis of logistic regression coefficients <u>regardless of their statistical significance</u>, but inclusion of factors in a multivariate model regardless of their statistical significance <u>runs counter to the usual approach</u>.

As the majority of the previous examples show, the great majority of AC in editorials are directed to researchers who are clearly identified by their surnames, and sometimes even by their first names (see example 2). Some of these AC, though, are directed to governmental entities or medical practitioners in general (ex. 7):

7. 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 <u>are unwilling to accept that any risk exists</u>. In addition <u>some radiotherapists are proving slow to accept that radiotherapy regimens for cancers .... needs review</u>.

Finally, the highly personal character of AC in editorials --so evident in examples 1 to 9 -- is moreover frequently reinforced through the use of the first personal pronoun and/or possessive adjective (ex. 8 and 9) which underline the writer's

expert status. As Korhonen and Kush (1989: 72) put forth in their study on philosophical texts, "*position of authority*" correlates quite highly with the use of direct reference to the first person.

> 8. <u>I am not nearly as certain</u> as Shaw, Eagle and Miller that a positive result is a definitive indication for preoperative coronary revascularization.

> 9. <u>In my opinion</u>, <u>existing data are insufficient</u> to make definitive recommendations.

The assertiveness, straightforwardness and authoritativeness with which the AC are voiced in examples 1 through 9 mirror the fact that ED are not examples of peer-to-peer discourse. On the contrary, editorialists are implicitly considered by the scientific community as a) *'expert knowledge holders'* (Hemais 2001: 57) who can indulge in expressing themselves in a "politically-like" speech by uttering their dissension in a highly personal, self-confident and sarcastic (sometimes even downgrading) tone, and 2) 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 AC in today's medical ED and their highly personal character (i.e., the strong author's involvement) are features which were found to be characteristic of the way 19th and early 20th century Anglo-American 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 was then called 'original papers' (the equivalent of today's RP) and 'lectures' (today's RV).

The variety, richness and highly self-highlighted flavor of the linguistic realizations of AC in examples 1 to 9 also reflect the fact that ED are debate-focused, essay-like metatexts[13] -- or "*discourse on discourse*" (Vihla 1999: 127) -- directly related to a primary text, i.e., their communicative function is much more than that of merely repeating arguments expressed in pre-existing texts. Indeed, their primary and fundamental function is that of arguing persuasively, of assessing previously published papers, of commenting on their hypotheses and of trying to convince the reader to adopt the ED writer's own stance [14]. 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.

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

[14] It should be noted, however, that an article may have more than a single function (Paltridge 1997). 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'.

B: Review articles and meta-analyses (RV)

Contemporary systematic reviews and meta-analysis (see footnote 7) are frequently multi-authored texts which start with a clinically relevant question and highlight that question on the basis of findings presented in previously published papers. In other words, their communicative function is to gather, summarize and critically assess information reported in pre-existing articles . This is why RV and meta-analysis articles are extremely useful to the scientific community to whom they are addressed because they can significantly help medical practitioners (who do not have time to follow up the ever-growing number of articles published in the various fields of medicine on a given issue) to make up theoretical or practical decisions with respect to a particular treatment, a diagnostic procedure or a preventive approach. The authors of these meta-texts are thus *'expert knowledge holders'* -- also, although to a lesser extent, perhaps, *'expert knowledge builders'*, to use Hemais expressions (2001:57) -- who address an expert audience interested in a very precise medical issue. As Beaufrère-Bertheux (1997: 226) points out:

> *Le* 'review article' *fait le point sur un sujet relativement général.... L'auteur fait le tour de ce qui peut être dit sur le sujet, rassemblant le maximum d'informations et proposant des solutions, des protocoles ou des comportements à adopter. Il s'agit d'informer la communauté scientifique médicale dans son ensemble, on a envie de dire 'pour sa culture générale'.* [15]

Or, in the words of Wills (1997: 135):

> *Reviews are an essential factor of our research activities, combining and integrating mainly two functions: reporting and evaluating research findings in a more or less condensed and expert manner.*

Academic conflicts are quite frequent in RV (although less than they are in ED) and their most salient qualitative rhetorical feature lies in the fact that their tone is also very authoritative, categorical and assured (reflecting the expert's voice) as the following examples bear evidence of (ex. 10 and 11):

> 10. These studies present either <u>several flaws in research methods</u> (small sample sizes or incomplete reporting of study design or methods)<u> or multiple flaws in research methods of unsubstantiated opinion</u>.

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[15] "The *'review article'* is an up-dated account of a relatively general topic.... The author rounds up what can be said on that topic by gathering the maximum information possible and offering solutions, protocols or behaviors to be adopted. The aim is to inform the medical scientific community at large; one almost feels like saying 'for one's general culture'" (The translation is mine)

11. We analyzed 80 randomized trials of antibiotic treatment of acute sinusitis. <u>Most were ineligible for our meta-analysis:</u> <u>48 did not use the reference drugs pertinent to this analysis, 3 inextricably combined patients with sinusitis with those with other infections and inextricably combined patients with acute, chronic and recurrent sinusitis.</u>

This type of AC which targets severe important methodological flaws in previous research abound in RV papers. In fact, they form the most important category of AC in RV. This finding somewhat contradicts Vilha's argument that "*methodological questions are unlikely to cause major disagreement within the research community*" (Vilha 1999: 71). The de-emphasis given to the methods section of research papers (using smaller prints than the rest of the paper and inserting them into frames) has been noted by Berkenkotter and Huckin (1995) and by Vihla (1999) who speculates that the rationale behind such a de-emphasis may be that the research community shows general agreement on the accepted methods in a "*normal state science*" (Kuhn's 1970). Such a claim does not seem to be substantiated by the finding of the present investigation into AC. On the contrary as we have seen, methodological questions are quite frequently the focus of criticism in review papers. It should be underlined, though, that the emphasis on methodological issues in meta-analyses and review papers is directly related to the very communicative purpose of this genre: in RV it is very important indeed to select and critically assess the most rigorous and scientifically impeccable studies because the conclusions reached should be as valid and robust as possible so as to enable RV authors to dictate practical guidelines with the slightest degree of error.

Academic conflicts which assertively denounce an unjustified, unexplained and/or regrettable lack of research on a given topic are also frequently present in RV (see ex. 12 and 13 below):

12. A wide variety of antibiotics are used, but <u>there is little information to allow doctors to determine the best initial choice of antibiotic</u>.

13. Because of the snapshot characteristic of the angiographic approach, <u>other diagnostic criteria are **eagerly** awaited</u>.

Example 13 is one of the few cases where emotional involvement could be detected. Indeed, the adverb *'eagerly'* reveals the author's impatience -- and, perhaps, that of the medical community-- for a long-awaited publication of other diagnostic criteria.

Interestingly enough, most self-'inflicted' criticisms (i.e., those directed to the writers of the paper themselves or, more precisely, to their study!) are voiced in a modulated, downtoned and subdued fashion as examples 14 and 15 beautifully, I believe, illustrate. Such self-criticisms are almost always found in the '*Limitations of the study*' section of the review article or meta-analysis and their intention is

quite clear: the writers simply want to anticipate future criticisms, refutation and/or counter-argumentation

> 14. The total number of patients available for pooling in this meta-analysis <u>was</u> *perhaps* <u>too small</u>. *It is thus possible* <u>that a significant advantage of newer antibiotics</u> *might have been evident* <u>if more data were available</u>.

> 15. *It is possible that*, by grouping these drugs, <u>we have obscured some important and systematic differences between the drug classes</u>.

We can readily appreciate the lack of emotion, the impersonal and 'coldly scientific', expert-like tone with which all these AC (ex. 10 to 15) are formulated. As I said before, the purpose of the researchers here is to express their opinions on scientific works as objectively as possible[16] with a view to familiarize their expert readership with the achievements and flaws of the works being reviewed. Not a single instance of humor, sarcastic or ironical AC was recorded in our RV sub-corpus. All this stands in sharp contrast with the unconcealed, personal, almost face-to-face dialogic involvement of the critical speech acts recorded in ED (ex. 1 to 9 above).

C. Research Papers (RP)

With their highly conventional macrostructure (van Dijk 1980), RP are the main medium for presenting new scientific findings (i.e., new knowledge) in the process of construction. They are the "*bread and butter of contemporary scientific inquiry*" (Skelton 1997: 48), the most well researched genre on both the discourse level and the lexicosyntactic level (Swales 1990, especially Chapter 7) that provide hypothetical solutions to questions having clinical or theoretical interest. Their authors devote considerable effort to discussing experiments, concepts, research instruments and methods and to presenting research with applications in mind. We can thus say that RP writers are both knowledge-builders and knowledge-holders in that the arguments they present (contrary to arguments sustained in ED) rely on new, original empirical data which researchers intend to persuasively "sell" or "promote" to the medical scientific community (cf. Ventola 1995, Grabe and Kaplan 1997, *inter alii*). As Ventola (1995: 126) argues:

> *Doing research is not just a matter of writing up the results of the experiments, analyses, etc. -- what one has to do is to convince your colleagues, to sell your research.*

First of all, academic conflicts are much less frequent and less conspicuous in RP than they are in ED and RV. Secondly, they can readily be divided into two groups, viz., those found in the introduction section of the papers and those encountered in the discussion, each group having quite distinct rhetorical functions. Indeed,

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[16] It has repeatedly been said that scientific objectivity is a myth (Dubois 1987, Kaplan and Grabe 1991, Chesterman 1995, Ventola 1995).

'introduction AC' serve the rhetorical purpose of highlighting what the authors of the RP implicitly consider as an 'unjustified gap' in the literature. The socio-pragmatic aim of these AC (which belong to what Crombie (1985: 58) calls *'gap discourse elements'*) [17] is thus to *"create a research space"*, a *'niche'* (Swales 1990: 140-141) in order to subtly justify the publication of the research being reported. As Régent so aptly remarks (1992: 68):

> *La lutte pour la reconnaissance et le pouvoir est toujours présente, bien que rien ne doive transparaître en surface des querelles et rivalités du microcosme.* [18]

The tone of these AC, as examples 16 to 21 clearly illustrate, although direct, is that of a self-effaced and apparently humble writer. Example 16 refers to a lack of published patterns to guide obstetric anesthesiologists in situations where clinical management is controversial, and example 17 criticizes the limited clinical use of current formulas regarding the probability of death from burn injuries. The AC are voiced in cold, objective (see footnote 16) scientific terms:

> 16. <u>The lack of published patterns</u> makes it difficult to define the standard of care to guide the individual practitioner who is faced with a controversial issue. <u>We are not aware of any study</u> that determines whether there are differences in practice patterns between those in academic and those in private practice.

> 17. <u>This formula has become obsolete</u> ... and <u>more recent formulas have limited clinical use</u> because they are difficult to remember or apply or they require more sophisticated clinical variables.

In both instances, of course (as in the case of most 'introduction AC'), the researchers then proceed to providing their own solution so as to, so they hope, fill the gap noted in the literature.

Regarding the AC recorded in the discussion sections of RP -- a section known to combine "*both the evidential and the speculative"* (Skelton 1997) --, their indirectness is embodied in the 'responsibility shifting' strategy that presents the statements to the audience in an impersonal, unimposing tone with the purpose of softening and decreasing the strength of the AC illocutionary force (see Salager-Meyer and Zambrano 2001). As can be seen, there is no overt arrogation of responsibility at all in examples 18 and 19 below:

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[17] 'Discourse elements' refer to "*divisions in a text in terms of the way in which their parts function to convey various types or categories of information*" (Crombie 1985: 58). Each discourse element is classified in terms of the communicative function which it performs in relation to the discourse as a whole.

[18] "The struggle for power and recognition is always present, although the quarrels and rivalries of the microcosm should not be put in evidence" (My translation)

18. *Our results* <u>contrast with the results of a survey</u> published last year (**).

19. *The results of our survey* <u>do not agree with the results of a survey</u> of 47 British departments of anesthesia (**)

Thanks to this '*conscious or unconscious trick of authorial rhetoric*' (Horton 1995: 985), authors hide themselves behind the results of their investigations, and implicitly state (and ask their readership to accept that implicit statement) that **their** results are the correct ones; the erroneous ones are, of course, those of "*the other survey*"!

The compound indirect AC in the following examples (20 and 21) are linguistically formulated through the combination of a responsibility shifting ('*our data*' and '*our results*' as the inanimate subjects accountable for the indirect critical comments in examples 20 and 21 below) and the use of semi-auxiliary verbs (*'suggest'* in example 20 and *'seem'* in example 21). We could speculate, along with Vihla (1999: 94) that the use of such rituals of courtesy "*may make possible future encounter more agreeable to both partners.*"

21. <u>Contrary to previously reported results,</u> *our data suggest* that there may be another explanation for the etiology of the entity.

22. Previous studies (**) have found that Apgar scores were higher when a regional rather than a general anesthetic was used for a cesarean section when there was fetal distress...... <u>Based on</u> *our results,* however, <u>this does not</u> *seem* <u>to be the case</u>.

In the situational context of RP, harsh negative assertions or criticisms would too forcefully contradict previous theories and/or standpoints. This is why in the discussion sections of RP, discrepancies are generally subtly disguised and mitigated. However, as Vihla (1999) and others (Régent 1992, Hyland 1996, 1998) argue, mitigation can refer to several aspects at the same time: it can either relate to the writers (their non-commitment), to the content of the statement (its degree of reliability) or to the addressee (sincerity, politeness). These three aspects are, of course, complementary and a hedging expression may express all of them simultaneously.

Finally, examples 16 to 21 show that these AC rarely (if ever) mention the criticized authors by their surnames. These are rather identified as superscripted or parenthetical numbers and are referred to as *'previous studies', 'trials', 'surveys' or 'results'.*

To sum up, then, the criticisms uttered in RP are rather low-key, i.e., much less categorical and authoritative than those encountered in ED and RV. Their quite frequent hedginess is motivated by the fact that RP writers must subtly convince their audience -- first of all, of course, journal editors and referees -- of the

soundness and validity of their **own** empirically-based claims. Authors thus have to be careful, 'politically correct' and 'diplomatic' when dissenting with their peers; they cannot be offensive, much less ironical or sarcastic, because they would then expose themselves to the boomerang effect of future criticism or sarcasm which could inflict a severe and potentially damaging blow to their reputation as scientists as well as to that of the institution they work at.

D. Case Reports (CR)

Case reports are a slowly disappearing genre in the medical literature. In fact, today, very few leading medical journals publish them at all. At any rate, the voice of a CR author is much more that of the practitioner than that of a knowledge builder or holder. This, of course, does not imply that the authors of CR cannot, in the situational context of other genres, play the role of expert knowledge-holders or knowledge-builders. This only means that in the context of a CR, they do not pretend to have the last word on a given medical issue. They simply present and discuss in a short-story-like fashion one (or a few) cases they think could be of interest to the scientific community for their "unusualness" and/or for their educational value.

Within the four genres considered in this study, then, CR is the most narrative (i.e., the least argumentative) and the one that presents the lowest level of scientific claim (see Salager-Meyer 1993). Their communicative situation, then, does not favor scientific argumentation (i.e., agreement and/or disagreement) to arise. As a matter of fact, very few statements were identified as critical remarks in the CR sub-corpus, and the few recorded share common rhetorical features with those of RP. That is, they either appear in the generally very short introduction (thereby justifying the interest in the case publication) or in the 'comment' section (which corresponds to the 'discussion section' of RP).

The flat and very matter-of-facted 'introduction AC' in CR generally refer to a given disorder that has never been reported in certain contexts (ex. 22) or to the literature that so far has not provided enough information on a particular issue (ex. 23).

> 22. The olfactory delusional syndrome has never been reported in Middle Eastern communities.

> 23. Despite numerous reports of HIV-related neurological disease and impairment, the medical literature has provided little information regarding the management of residual disability.

As for the AC recorded in the 'comment section' of CR, they are either quite direct and personal (ex. 24) or indirect (ex. 25):

25. <u>While Pryze-Phillips (1971) accepted unquestionably</u> that his patients were hallucinating, <u>it is</u> *sometimes* <u>not clear whether</u> the olfactory delusional syndrome is a hallucinatory or a delusional disorder or both.

26. <u>The notion that</u> depressed patients have no 'contrite reaction' <u>was not confirmed with</u> *in our cases.*

We should however make emphasis upon the fact that AC were so scarce in CR that no clear-cut statements can be formulated about them.

6. Conclusions

This paper represents, I hope, a contribution to the growing body of research on academic conflict and genre studies. It aimed at explaining cross-generic variations in the discursive choices made to convey professional disagreement by relating these choices to the genre specific communicative function, its level of knowledge claim and author's status-audience relationship.

Editorials, RV, RP and CR --the four genres analyzed in this study-- form a continuum in scientific medical publications. On the extreme left-hand side of that continuum, we could locate the *essay-type ED* whose 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) who can therefore indulge in directly and harshly criticizing his/her peers in a sometimes condescending and sarcastic fashion. While discussing issues of interest to the scientific community at large, ED writers strive to convince their readers and invite them to take part in paradigm formation. At the other extreme of that continuum, we have the *short-story-like CR* whose low-key, humble author plays the simple and unpretentious role of observer-narrator-reporter who hardly makes any criticism at all because his/her level of knowledge claim is very low. In between these two extremes, we have, on the one hand, the *encyclopedia-like RV* written by experts whose status is generally well-established and whose role is to critically assess previously published studies on a narrowly defined medical issue in order to provide sound practical guidelines to the scientific community. On the other hand, we have the *novel-like RP* whose self-effaced authors either still do not have a well-established status within the research community (they then have to acquire their reputation as scientists) or are already well-known researchers who have to maintain their expert status. In order to protect their face and that of the institution they work at, then, it is in their interest not to criticize their peers in too harsh and direct a tone but in a subtle, disguised fashion which will help them convince the editorial gatekeepers of their own empirically-based claims and "sell" their intellectual product on the marketplace.

The <u>position of authority</u> assumed by researchers in the four different genres of medical literature examined here and their <u>responsibility</u> as knowledge holders, knowledge builders and/or decision-orientators then correlate quite highly with the linguistic formulation of their criticisms. We could thus state that the cross-generic

differences in the discursive practice of AC observed in the present study reflect the different communicative function of the medical text within the medical profession which, in turn, determines the social roles of the writers and of the texts they write. In that sense, our research not only provides further evidence to the now widely recognized perception of the relationship between language choice and socially-driven text construction, but also adds strong support to the importance of the application of transversal approaches to the study of rhetorico-pragmatic phenomena.

7. Bibliographical references

Adams-Smith, D.E. (1984) "Medical discourse: aspects of author's comments" English for Specific Purposes. 3(1). 25-37.

Ahmad, UK. (1997) "Research article introductions in Malay: rhetoric in an emerging research community." In Duszak (1997) op. cit. 273–303.

Bazerman, C. (1994) "Systems of genres and the enactment of social intentions." In A. Freedman and P. Medway (Eds.) Genre and the New Rhetoric. London. Taylor and Francis.

Bazerman, C. (1998). Shaping Written Knowledge: The Genre and Activity of the Experimental Article in Science. University of Wisconsin Press.

Beaufrére-Bertheux, C. (1997) "L'anglais de la recherche médicale: une grande diversité" ASp (Anglais de Spécialité). Université de Bordeaux. 223-238.

Belcher, D. (1995) "Writing critically across the curriculum" In D. Belcher and G. Braine. Academic Writing in a Second Language. Essays on Research and Pedagogy. Ablex Publishing Corporation. Norwood. 135–155.

Berkenkotter, C., and T. Huckin (1995) Genre Knowledge and Disciplinary Communication. Cognition. Power. Culture. Lawrence Erlbaum Associates. Hillsdale. New Jersey.

Bhatia, V. K. (1993) Analyzing Genre. London: Longman

Biber, D. (1988) Variation across Speech and Writing. New York: Cambridge University Press.

Bloch, J., and L. Li (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. Ablex Publishing Corporation. Norwood. NJ. 231–277.

Chafe, W. (1982) "Integration and involvement in speaking, writing and oral literature" In Spoken and Written Language: Exploring Orality and Literacy (Advances in Discourse Processes 4), Deborah Tannen (Ed). 35-54. Norwood, NJ.: Ablex

Chesterman, A. (1995) "Norm-breaking in academic discourse" In Warwick, B., SK. Tanskanen and R. Hiltunen (Eds.) Organization in Discourse: Proceedings from the Türkü Conference. University of Türkü. Finland. 210-212.

Chubin, D.E., and S.D. Moitra (1975) "Content analysis of references: adjunct or alternative to citation counting." Social Studies of Science. 5(4).

Crombie, W. (1985) Process and Relation in Discourse and Language Learning. Oxford. Oxford University Press.

Crompton, P. (1997) "Hedging in academic writing: some theoretical problems" English for Specific Purposes. 16(4), 271-289.

Devitt, A. (1991) "Intertextuality in text-accounting: generic, referential and functional." In Bazerman, C., and J. Paradis. Textual Dynamics in the Professions: Historical and Contemporary Writing in Professional Communities. Madison: Wisconsin. University of Wisconsin Press. 336-358.

Dijk, T. A. van (1980) Macrostructures: An Interdisciplinary Study of Global Structures in Discourse, Interaction and Cognition. Hillsdale, NJ. Lawrence Erlbaum.

Do, Q. T. (1989) "Notes on education in the traditional culture of Vietnam" Journal of Vietnamese Studies. 1: 2, 13–17.

Dubois, B.L. (1987) "Something of the order of around forty to forty-five: imprecise numerical expressions in biomedical slide talks" Language and Society. 16:4, 527-541.

Dudley-Evans, T., and 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. (Ed). (1997) Culture and Styles in Academic Discourse. Mouton de Gruyter: Berlin.

Farrell, L. (1997) "Doing well ... doing badly: a analysis of the role of conflicting cultural values in judgments of relative 'academic achievement'" In A. Duszak (Eds.) op. cit. 63–89.

Ferguson, G. (2001) "If you pop over there: a corpus-based study of conditionals in medical discourse." English for Specific Purposes. 20(1), 61-82.

Freedman, A., and P. Medway (1994) (Eds.) Genre and the New Rhetoric. London. Taylor and Francis.

Grabe, W., and R. Kaplan (1997) "On the writing of science and the science of writing: hedging in science texts and elsewhere" In Markkanen A. and H. Schröder (Eds.) Hedging and Discourse: Approaches to the analysis of a Pragmatic Phenomenon in Academic Texts. Walter de Gruyter. 151-168.

Halliday, M. A. K. , and R. Hasan (1989) Language, Context and Text: Aspects of Language in a Social-Semiotic Perspective. Oxford. Oxford University Press.

Halliday, M.A.K., and J.R. Martin (1993) Writing Science. Literary and Discursive Power. London: Falmer Press.

Hemais, B. (2001) "The discourse of research and practice in marketing journals." English for Specific Purposes. 20(1), p. 57-58.

Holmes, J. (1988) "Paying compliments: a sex-preferential politeness strategy" Journal of Pragmatics. 12: 445-465.

Horton, R. (1995) "The rhetoric of research" British Medical Journal. Vol. 310. p. 985-986.

Hunston, S. (1993) "Professional conflict: disagreement in academic discourse" In Baker, M., G. Francis and E. Tognini-Bonelli (Eds.). Texts and Technology. In Honor of John Sinclair. Amsterdam. John Benjamins. 115-134.

Hyland, K. (1996) "Writing without conviction? Hedging in Science research articles." Applied Linguistics. 17: 433-454.

Hyland, K. (1998) Hedging in Scientific Research Articles. Pragmatics and Beyond. New Series. 54. Amsterdam. John Benjamin.

Hyland, K. (2000) Disciplinary Discourses: Social Interactions in Academic Writing. London: Longman.

Johnson, D. M., and D. H. Roen (1992) "Complimenting and involvement in peer reviews: gender and variation" Language in Society. 21, p. 27-57.

Kaplan, R., and W. Grabe (1991) "The fiction in science writing" In Schröder, H. (Ed.) Subject-Oriented texts. Languages for Special Purposes and Text Theory. de Gruyter. Berlin. 199-218.

Korhonen, R., and M. Kush (1989) "The rhetorical function of the first person in philosophical texts -- the influence of intellectual style, paradigm and language". In Chaste, Martin and Schröder (Eds.). Text Interpretation and Argumentation. Hamburg: Bask: 61-78.

Kourilova, M. (1996) "Interactive function of language in peer reviews of medical papers written by NN users of English." UNESCO-ALSED LSP Newsletter. 19(1) 4-21

Kress, G. (1986) Reading, Writing and Power. AALA. Occasional Papers. 9. 98-117.

Kuhn, T. (1970) The Structure of Scientific Revolutions. 2nd Edition. Chicago. Chicago University Press.

MacRoberts, M., and B. MacRoberts (1984) "The negational reference or the art of dissembling" Social Studies of Science. 14, p. 91-94.

Moravcsik, M., and P. Murugesan (1975) "Some results on the function and quality of citations" Social Studies of Science. 5(1)

Motta–Roth, D. (1998) "Discourse analysis and academic book reviews: a study of text and disciplinary cultures" In I. Fortanet, S. Posteguillo, J.C. Palmer and J.F. Coll (Eds.) Genre Studies in English for Academic Purposes. Publicación de la Universidad de Jaume I, 29–59.

Myers, G. (1989). "The pragmatic of politeness in scientific articles." Applied Linguistics. 10: 1-35.

Nguyen, X. T. (1988). "Understanding Vietnamese students: a focus on their passive attitude" Journal of Vietnamese Studies. 1: 1, 19–25.

North, S. (1992). "On book reviews in rhetoric and composition." Rhetoric Review. 10, 348–363.

de Nuchéze, V. (1992) "Réflexion sur la variation scripto-culturelle" In Moirand, S. et al. (Eds.) Parcours Linguistiques de Discours Spécialisés. Actes du Colloque en Sorbonne. Paris. Septembre. Peter Lang. p. 205-217.

Paltridge, B. (1997) Genre, Frames and Writing in Research Settings. John Benjamins. Amsterdam.

Posteguillo, S. (2000) "A comparative genre analysis of computer science English: contending rhetoric" The ESPecialist. 21(1), 43-69.

Poynton, C. (1989) Language and Gender: Making the Difference. Oxford. Oxford University Press.

Régent, O. (1992) "Pratiques de communication en médecine" Langages. N. 105, 66-75.

Resche, C. (1999) "De l'utilité d'une approche syntaxique en langue spécialisée: exemple de l'anglais économique" .ASp (Anglais de Spécialité) Université de Bordeaux. (France) 23/26. 121-139

Salager-Meyer, F. (1993) "Imprecision and vagueness (hedging) in today's medical discourse: coyness, courtesy or necessity?" The ESPecialist. 14(1), 1-13.

Salager-Meyer, F. (2000) "Rhetorical evolution of oppositional discourse in French academic writing." Hermés. (25), 23-48.

Salager-Meyer, F. (2001) "'This book portrays the worst form of mental terrorism': critical speech acts in medical English book reviews (1940-2000)" In A. Kertész (Ed.) Approaches to the Pragmatics of Scientific Discourse. Metalingüística Series n. 9. Peter Lang. p. 47-72.

Salager-Meyer, F., and Alcaraz-Ariza (2001) "Lo cortés no quita lo valiente: la retórica de la discrepancia en el discurso médico escrito en español" In Palmer, J.C., S. Posteguillo and I. Fortanet (Eds.) <u>Discourse Analysis and Terminology in Languages for Specific Purposes</u>. Universitat Jaume I. p. 15-25.

Salager-Meyer, F., and N. Zambrano (2001) " The bittersweet rhetoric of controversiality in 19th- and 20th-century French and English medical literature." <u>Journal of Historical Pragmatics</u>. 2(1), 141-173.

Salager-Meyer, F. (2002) "Market-place, self-confidence and criticism in medical editorials" <u>Revista Canaria de Estudios Ingleses</u>. Vol. 44. In press.

Schramm, A. (1996) "Using aspects to express viewpoints in EST texts" English for Specific Purposes. 15(2), 141–164.

Skelton, J. (1997) "How to tell the truth in the *British Medical Journal:* patterns of judgment in the 19th and 20th centuries" In Markkanen, A., and H. Schröder (Eds.) <u>Hedging and Discourse: Approaches to the analysis of a Pragmatic Phenomenon in Academic Texts</u>. Walter de Gruyter. Berlin. 42-64.

Swales, J. (1990) <u>Genre Analysis. English in Academic and Research Settings.</u> Cambridge. Cambridge University Press.

Taavitsainen, I. (2001) "Middle English recipes: genre characteristics, text-type features and underlying traditions of writing" J<u>ournal of Historical Pragmatics</u>. Vol. 2(1), 85-115.

Taylor, G., and T. G. Chen (1991) "Linguistic, cultural and sub–cultural issues in contrastive discourse analysis: Anglo–American and Chinese scientific texts" <u>Applied Linguistics</u>. 12, 319–336.

Valle, E. (1999) <u>A Collective Intelligence: The Life Sciences in the Royal Society as a Scientific Discourse Community. 1665–1965</u>. Anglicana Turkuensia Nº 17. University of Turku. Finland

Ventola, E. (1995) "What's in an academic text?" In Warwick, B., S.K. Tanskanen and R. Hiltunen (Eds.) <u>Organization in Discourse: Proceedings from the Türkü Conference</u>. University of Türkü. Finland. 109-131.

Vihla, M. (1999 <u>Medical Writing. Modality in Focus</u>. Rodopi. Amsterdam.

Wills, W. (1997) "Hedging in expert language reviews" In <u>Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Texts</u>. Markkanen, R., and H. Schröder (Eds.) Berlin and New York: Mouton de Gruyter. 134-150.

Ziman, J.M. (1968) <u>Public Knowledge: An Essay Concerning the Social Dimension of Science</u>. London. Cambridge University Press.

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ABSTRACT

From Self-Highlightedness to Self-Effacement:
A Genre-Based Study of the Socio-Pragmatic Function of Criticism in Medical Discourse

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Research has shown that critically attacking others' work in contemporary science is a very sensitive issue and that the linguistic strategies used to convey academic conflict are not only discipline-specific, but also epoch- and language/culture-bound. Little is known, however, on the influence of **genre** on the linguistic realization of professional disagreement.

In order to determine whether and in what way the communicative/situational function of different genres, the level of knowledge claim characteristic of each genre and the rank/status power relations that exist between authors and their audience have a bearing on the way medical researchers express their dissension, we 'transversally' analyzed the linguistic expressions used to convey disagreement in the four main genres of health communication, viz., research articles (RP), review articles (RV), editorials (ED) and case reports (CR). Towards that end, we randomly selected 50 articles (ED, RP, RV and CR) recently published in mainstream English-written medical periodicals. Critical speech acts were recorded in each article and qualitatively analyzed as to their tone (outright vs. veiled), itself reflected in the discursive choices made to criticize cited sources.

The results of the present study show that editorialists (who are considered by the scientific community as critical expert knowledge-holders) express their criticisms in a direct, authoritarian, highly personal and frequently ironic, condescending and/or sarcastic tone. Authors of RV (who play the role of critical expert knowledge-holders and builders) also tend to voice their disagreement in a categorical and assured way but without emotionally involving themselves. By contrast, RP writers, who adopt the role of rather self-effaced knowledge-builders,

convey their critical comments in an apparently humble and unimposing tone. Finally, the situational context of CR impose upon their authors (who are mostly narrators-reporters) a very low-key profile which, in turn, explains the scarcity of criticism in that particular genre.

A 'polemical cline' -- from blunt criticism (ED and RV) to hardly any dissension at all (CR) through 'politically correct' critical comments (RP)-- was then clearly put to the fore. That cline can be accounted for by the social role and/or the position of authority assumed by the researchers in each genre and their responsibility as knowledge-holders, builders and/or decision-orientators.

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