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DISSENSION ACROSS ACADEMIC GENRES

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INTRODUCTION

Science historians, rhetoricians, linguists and LSP practitioners have lately focused their attention on the study of the prominent socio-pragmatic features of scientific discourse, one of them being the way scientists convey their dissension in the written reports of their research. That issue has been dealt with from various perspectives: disciplinary and cross-disciplinary (e.g., Hunston, 1993; Burgess, 2000; Hyland, 2000; Salager-Meyer, 2001; Giannoni, 2002), cross-cultural/linguistic (Nguyen, 1988; Do, 1989; Taylor and Chen, 1991; Bloch and Li, 1995; and Farrell, 1997), and more recently diachronic and cross-cultural (Alcaraz Ariza and Salager-Meyer, 2002; Salager-Meyer and Alcaraz Ariza, 2003; Salager-Meyer, Alcaraz-Ariza and Zambrano, 2003). It is interesting to note that the theme of the Second CERLIS (*Centro di Ricerca sui Linguaggi Specialistici*) Conference, held in Bergamo (Italy) in October 2001, was entirely devoted to the study of conflict and negotiation in specialized texts written in the main European languages, viz., German, French, English, Spanish and Italian. This relatively recent interest in the study of dissension or academic conflict (abbreviated hereafter as AC) in specialized discourse can be accounted for by the fact that dissension acts both on the semantic and on the interpersonal planes and that conflict and its negotiation are prominent features of specialized discourse (cf. Gianonni, 2002; Gotti et al., 2002).

All these studies have undoubtedly shed some very interesting light on our understanding of AC, but, as Hyland (2000) argues, there is little work on how the expression of conflict may vary in particular genres and contexts. "Our knowledge of how criticism is expressed is likewise very limited" (Hyland, 2000: 45). Paltridge echoes Hyland's stance by making emphasis upon the fact that a thorough and balanced approach to the issue of conflict in specialized texts should also involve examining how scientists express their criticisms in "the context of particular genres" (Paltridge, 1997: 102-103).

The research reported here intends to fill that gap by examining the frequency of AC¹ in the four typical genres or “*genres systems*”² (Bazerman and Paradis, 1991) of medical English prose as well as its linguistic realizations, “personalization” and most frequent targets.

PURPOSE

This research focuses on two dimensions, viz.:

- 1) a quantitative dimension that aims at determining:
 - a. the frequency of AC in the four typical genres of medical discourse: editorials (ED), review articles (RV), research papers (RP) and case reports (CR). We were also interested in assessing the degree of overtness (unmitigated or direct AC, see ex. 1 and 3³) vs. covertness (a hedgy or modulated AC, see ex. 2) as well as the “personalization” level of AC, i.e., whether the AC is voiced at a clearly identified researcher or group of researchers either explicitly or by means of a superscripted number (ex. 1 and 3) or whether it is impersonally directed at the research community at large (ex. 4).
 - i. While Pryse-Phillips (1991) accepted unquestionably that his patients were hallucinating, it is sometimes not clear whether the syndrome is a hallucinatory or a delusional disorder or both.
 - ii. Many of these series appear rather outdated.
 - iii. More recent formulas (**) have limited clinical use because they are difficult to remember or apply or they require more sophisticated clinical variables.

¹ An “academic conflict” is to be understood as a statement which reflects a discrepancy between the stance of a writer and that of another scientist or of the scientific community at large.

² As Bhatia (2002) reports, there are academic genres such as textbooks, research articles, essays and examination questions that are common to most disciplines. Some fields, though, have “typical” genres or “*genre systems*” (Bazerman and Paradis, 1991): in law, for example, typical genres are cases, statuses and judgments. In business, one is more likely to find letters, business reports and memos. In medicine, as I explain in the ‘materials and methods’ section of this paper, these are primarily represented by editorials, review articles, research papers and case reports.

³ All the examples provided are drawn from our sample texts. The underlined words/expressions indicate the covertness devices used in the AC and asterisks stand for superscripted numbers which in the original article refer readers to an end-list of bibliographical references.

conclusions of previously published research. The mention of a gap in the literature was also recorded as AC. The frequency of each focus-category was calculated over the total number of AC recorded in each genre.

RESULTS

FREQUENCY OF AC

A total of 221 AC was recorded in the whole corpus. Table 1 indicates their distribution per 10,000 running words in each genre. No statistically significant difference was observed either between the frequency of AC recorded in ED (42) and that recorded in RV (40.5) or between that of RP (8.5) and that of CR (4.6). By contrast, the difference between the frequency of AC observed in ED and RV and that observed in RP and CR is highly significant ($p = .0001$).

These results thus indicate that with respect to the frequency of AC, the 4 genres can be classified into 2 distinct groups: on the one hand, ED and RV which represent the most "critical" genres (we shall call them "epicritical") and, on the other, RP and CR, which represent the least "critical" genres (we shall call them "experimental/descriptive genres").

OVERTNESS VS. COVERTNESS AC

Of the 221 AC recorded, 205 (92.7%) were voiced overtly and 16 (7.2%) covertly (see Table 1). The difference between the frequency of overt and that of covert AC is highly significant ($p = .0001$), overt criticism being more frequent than covert ones in each genre. Nonetheless, it is interesting to point out that it is in RP where the frequency of covert AC is by far the greatest (40%). In fact, in RP only is the difference between the frequencies of overt (60%) and covert (40%) AC borderline ($p = .04$).

PERSONAL VS. IMPERSONAL AC

Table 1 also displays the frequency of personal vs. impersonal AC in the 4 genres. Of the 221 AC recorded in the whole sample, 131 (59.3%) were found to be personal and 90 (40.7%) impersonal. The statistical test of significance did not detect any statistically significant difference between these 2 frequencies. However, it is interesting to mention a few cross-generic differences: ED and RV are by far the 2 genres where AC is most frequently expressed in a personal fashion (71.7% in ED and 60% RV), i.e., directed at a clearly identified researcher whose name is mentioned in the paper either explicitly or by means of a superscripted number. By contrast, in RP and CR,

criticism is most frequently aimed at the research community at large: in RP impersonal AC accounts for 60% of all the AC recorded and for 85.7% in CR. Statistically significant differences were observed between the frequency of personal AC recorded in ED and that recorded in RP ($p = .002$), ED vs. CR ($p = .0001$) and RV vs. CR ($p = .0001$).

All in all, then, regarding the frequency of personal vs. that of impersonal AC, the 4 genres can here too be classified into 2 distinct groups: on the one hand, ED and RV, highly personal in the formulation of their criticisms and, on the other, RP and CR, much more impersonal (see Table 1 and Graph 1).

TARGETS OF CRITICISMS

Interesting cross-generic differences are observed here too. As Table 1 shows, ED writers most frequently criticize two fundamental phases of experimental scientific research, i.e., the conclusions (41% of all the criticisms recorded in this genre) and, though to a lesser extent, the methods employed by previous research (24.7%). Conversely, RV writers mostly aim their criticisms at the methods of previous studies (56.7%) and, though much less frequently, at a gap in the literature (21.6%). As for RP writers, they most frequently critically refer either to a gap in the literature (45%) or to the inconclusive and/or contradictory results of previous research (40%). A gap in the literature is also the most frequent focus of AC in CR (57%), followed by negative appraisals of previous research findings (28.5%).

Our findings thus indicate that the classification of the 4 genres into 2 groups can also be made with respect to the targets of AC. Indeed, conclusions and methods are the most common foci of criticisms in the “epicritical” group (ED and RV), whereas gaps in the existing literature and inconclusive/contradictory results are the most frequent targets of criticism in the experimental/descriptive group of articles (RP and CR).

We will now explain these quantitative findings in the light of the communicative function of each genre and of the social role assumed by their respective encoders.

DISCUSSION

1. *Epicritical genres: Editorials (ED) and Review Papers (RV)*

1.1. Editorials

This study has shown that ED is, along with RV, the genre that contains the greatest proportion not only of critical speech acts in general, but also of overt critical speech acts, thus partially corroborating the results of our cross-

generic research on Spanish medical discourse (Salager-Meyer and Alcaraz Ariza, 2003). This finding can be accounted for by two factors: the first is related to the communicative function of ED which is essentially of an evaluative and argumentative nature, and the second has to do with the social role played by editorialists who project the image of experts addressing a perhaps not-so-expert readership (for more details of the social role played by editorialists, see Salager-Meyer, 2002). It is important to mention here that these are generally commissioned by journal editors and thus considered by the scientific community as experts with a well-established standing in their field. They are not “ordinary scientists” but “expert knowledge holders” (Hemais, 2001: 57), advice-givers and orientators whose intentions is to help clinicians and practitioners in the complex decision-making process of everyday medical praxis.

Editorials are debate-focused, essay-like metatexts (the titles of ED are a clear indication of their metatextual nature), or, as Vihla (1999: 127) puts it “discourse on discourse” directly related to a primary text. In other words, the situational context of ED is much more than the mere repeating of arguments already expressed in previously published articles. It rather consists in critically assessing the conclusions reached by previous research. This argumentative function obviously calls for positive and negative appraisals.

ED writers not only criticize but also try to convince their readership of their point of view (Grabe and Kaplan, 1997; Vihla 1999) almost always in an overt and highly personal fashion, as examples 5 to 7 illustrate where the editorialist criticizes the conclusions reached or the methods followed by previous research:

5. David Barker (...) emphasizes the importance of improving maternal nutrition. (...) However, direct human evidence from epidemiological studies implicating maternal nutrition and diet is sparse and fragmentary (**).

Obviously the more contentious the issue dealt with in ED (e.g., the relation between stress and cancer, sexual and reproductive health), the more virulent the tone as in example 6 where the presence of illocutionary-force enhancers (such as *even* and the superlative adjective “*most basic*” in example 6) can be appreciated. These underscore the author’s strong personal involvement.

6. Retrospective recalls of life events in the 5 years before learning whether a breast lesion is malignant or benign constitutes a relatively weak test of the hypothesis of a link between stress and cancer. In Protheroe et al’s study, even this most basic safeguard against recall bias was ignored.

Divergences, discrepancy of knowledge and/or incompatibility of standpoints or ideological values are sometimes expressed in a humorous, sarcastic and/or condescending manner, a prominent rhetorical feature of AC in medical ED, as in the following example:

7. In 1893 Snow presented what might be the first statistical summary of the psychological characteristics of patients with breast and uterine cancer... Over 100 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 et al. (*).

All in all, examples 5 to 7 illustrate not only the overtness of AC in ED but also their personal character. As our quantitative data showed, it is indeed in ED where criticized researchers are most frequently explicitly identified by their surnames in the body of the paper itself and where the conclusions and methods of previous research are the most frequent targets of criticism.

1.2. Review articles (RV)

Review papers were found to be the second most critical genre. Rowley-Jolivet (1999: 187) claims that RV bear many similarities to plenary lectures in the sense that they present and collect information for a broad audience of specialists from different disciplines.

RV writers –who, as well as ED writers, are frequently commissioned by journal editors– then critically evaluate other researchers’ work, because their main role as medical researchers is to compare the findings of individual studies, i.e., to select and critically assess previously published research. Indeed, the conclusions reached in RV should be as valid and robust as possible so as to enable their authors to dictate practical guidelines with a minimum degree of error. This is why the most frequent target of AC in RV is the methods used by previous research, such as sampling technique, corpus size, wrong use of statistics, as example 8 illustrates.

8. We identified 80 randomized clinical trials of antibiotic treatment of acute sinusitis. Most of these studies were ineligible for our meta-analysis: 48 did not use the reference drugs pertinent to this analysis, 3 inextricably combined patients with sinusitis with those of other infections and 2 inextricably combined patients with acute, chronic and recurrent sinusitis.

The social role of RV writers, then, is not only that of an expert evaluator, knowledge-holder and critic, but also that of a researcher who reports his/her own conclusions based on the meticulous and scrupulous examination of a

certain number of carefully selected studies published on a given subject of interest to the scientific community.

In RV, criticism is also directed towards the scientific community at large –though to a much lesser extent than those criticisms pointing to methodological flaws–, thus underlining and lamenting a gap in the literature, as in example 9 below.

9. Efforts to develop an efficient electronic search strategy using Medline have thus far not been successful due to poor indexing.

2. *Experimental or descriptive genres: Research Papers (RP) and Case Reports (CR)*

2.1. Research Papers

One of the most salient communicative difference between RV and RP and between the social role assumed by their authors lies in the fact that RP writers report the results of their **own** empirical research, the worth, soundness and validity of which they must justify in the eyes of the scientific community (referees, journal editors and readers). It is now well known that one way of justifying the publication of one's research is to mention a gap in the literature (Swales 1990 and his famous CARS model, move 3). RP writers play the role of both knowledge-builder and knowledge-holder in that their papers present **knowledge in the process of construction** and not (as in the case in most ED and, to a lesser extent, most RV) a survey and/or critical analysis of current established knowledge.

It is not surprising, then, that this conceptual gap (example 10) constitutes the most frequent target of AC in research papers. This kind of AC corresponds to what we labeled “impersonal criticism”, i.e., criticism aimed at the scientific community at large. These are mostly voiced in a straightforward manner, i.e., without mitigation, and are encountered in the introduction sections of RP. A typical example is the following:

10. The lack of published practice patterns makes it difficult to define the standard of care to guide the individual practitioner who is faced with a controversial issue. Also, we are not aware of any study that determines whether there are differences in practice patterns between those in academic and those in private practice... Our study was designed to delineate current practice patterns.

The second most frequent type of AC recorded in RP is that aimed at the results of previous research, i.e., indirectly voiced at fellow researchers, and found in the discussion sections of RP. Negative (and positive) appraisals in

the discussion section of RP are justified by the fact that the discussion is the most argumentative section of all where scientists compare and contrast their own findings with those of other researchers.

The AC recorded in the discussion sections of RP are generally conveyed in a subdued, mitigated fashion by means of traditional hedging devices (cf. Hyland, 1998; Vihla, 1999) which often convey semantic understatements aimed at minimizing opposition, as in example 11 below. By expressing their dissension in such a tactful way, present-day academics intend to avoid the boomerang effect of a negative appraisal of their peers' work.

11. Marx et al. (*) 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 (...). Based on our results, however, this does not seem to be the case.

Another way of covertly criticizing or challenging previous views or previously published results is through the use of the rhetorical device called "responsibility shifting" strategy which consists in responsabilizing either a finding or a conclusion of the criticism uttered. For example, by saying:

12. Our finding is not consistent with those of previous studies (***) in which pulmonary capillary wedge pressure was increased by inhaled nitric oxide in the setting of severe heart failure.

The authors are subtly implying that their finding is the correct one and that those of the previous studies they mention are wrong. By responsabilizing their findings of the discrepancy observed, authors do not endanger their professional and personal relations. As a consequence, they may prevent embittered and harmful counterattacks (Hyland, 1998; Vihla, 1999).

CASE REPORTS (CR)

Case reports have been found to be the most uncritical genre, i.e., the genre that incorporates the least number of negative appraisals. This can be accounted for by the fact that CR writers (who, it is important to mention, can also be RP or RV writers as well) adopt a rather low profile. In CR, researchers are indeed low-key practitioners, short-story tellers who simply present one or a few unusual cases they have encountered in their praxis. In other words, CR are the least argumentative, the most narrative genre of all. It is therefore not surprising to find such a low incidence of AC in this genre. The few examples we found in our CR sample are very much like those

encountered in RP and mostly point to an underreporting of cases, i.e., a gap in the literature. These AC were all found in the introduction section (example 13 below) of the CR and were generally impersonally and overtly voiced.

13. Only a few these cases come to the attention of psychiatrists (...). The ODS (Olfactory Delusional Syndrome) has never been reported in Middle Easter communities. The following case histories are described in order to (...).

CONCLUSIONS

This study has examined the way writers encode interpersonally sensitive information in the four typical genres of medical discourse. Our quantitative results allowed us to divide the 4 genres into 2 groups: the “epicritical” group, on the one hand (ED and RV) and the experimental/descriptive one, on the other (RP and CR). This finding was explained in terms of the communicative function of each group (i.e., of the different aims and disciplinary roles of each genre), the former being essentially argumentative and evaluative in nature, thus presupposing a certain degree of conflict, whereas the latter is more narrative and “factual” and essentially reports research findings. The cross-generic differences observed with respect to the targets of criticism were also accounted for in terms of the different communicative function of each genre. ED writers mostly criticize global aspects of previous research (unfounded or hasty conclusions), whereas RV writers rather concentrate their critical appraisals on methodological issues followed by previous research. By contrast, AC in the experimental/descriptive genres mainly consist in the mention of a conceptual gap which helps encoders to justify the publication of their own research or in the critical discussion of previous research findings which serves the purpose of defending the writers’ own findings and of convincing readers of the soundness and validity of the newly presented claims.

The social role assumed by the encoder in the different genres was found to be another key factor which determines the tone, overtness and ‘personalization level’ of the AC. Editorialists play the role of critical appraisers, expert knowledge holders, decision-orientators with a well-established status within the scientific community who can therefore indulge themselves in criticizing their peers, sometimes even in a condescending and/or sarcastic fashion. It is in ED, then, where the social distance between encoder and audience is the greatest of all. On the contrary, CR encoders play the “lowest-key role” of mere observers and reporters who hardly offer any

critical remark at all because their level of knowledge claim is very low. The social distance between writer and reader is thus the smallest in the CR genre.

If we were to draw a scale or a continuum of the interpersonal variables (social distance, rank and power) underlying the different genres analyzed here, we would thus put ED at the one end of the scale and CR at the other. In between these two extremes we would put RV, whose writers play the role of both critical experts and knowledge-holders/builders, and RP writers, who mainly assume the role of knowledge builders who must find their niche and promote the products of their intellectual activities in a world which is unfortunately everyday more obsessed with numbers ... number of publications, number of citations, number of presentations at conferences, etc. These numbers are becoming the only determinants of other numbers ... financial credits indispensable to carry out research and everyday scarcest in an academic world where the number of scientists is increasing and fierce competition is the order of the day.

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TABLE 1: Corpus size and summary of quantitative results

	Epicritical genres		Experimental/descriptive genres		Total
	ED	RV	RP	CR	
N.° words	10.958	36.558	23.538	15.087	86.141
N.° AC	46	148	20	7	221
AC per 10.000 words	42	40.5	8.5	4.6	
Overt AC	(42) 91.3%	142 (95.9%)	12 (60%)	(7) 100%	205 (92.7%)
Covert AC	(4) 8.6%	6 (4%)	8 (40%)	--	16 (7.2%)
Personal AC	(33) 71.7%	89 (60%)	8 (40%)	1 (14.2%)	131 (59.3%)
Impersonal AC	(13) 28.2%	59 (40%)	12 (60%)	6 (85.7%)	90 (40.7%)
Targets of AC					
Methods	24.7%	56.7%	2%		
Results	5%	3%	40%	28.5%	
Conclusions	41%	15.4%	2%		
Gap	6.5%	21.6%	45%	57%	
Unfounded thesis	19.5%			14.2%	
Others	3%	3%	1%		

GRAPH 1: *Continuum of interpersonal variables in medical genres*