Interpersonal-driven Features in Research Article Abstracts: Cross-disciplinary Metadiscoursal Perspective

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ABSTRACT

Being a specific communicative genre of disseminating knowledge in today's academic arena, the research article abstract has its own specific conventional structure. Through such a seminal genre, research article writers are able to ratify and contribute their own new findings to the research community they belong to. Taking a cross-disciplinary quantitative approach, this study explores the status of interactional metadiscourse markers as prevalent interpersonal-driven features in research article abstracts. The central objective is to investigate how research article writers in particular discipline tackle and deploy interactional metadiscourse markers in the abstract section of their papers in the effort to propagate their ideas. Hyland's (2005) taxonomy of metadiscourse was adopted to analyse sixty research article abstracts written in two disciplines (Applied Linguistics and Economics) sourced from discipline-specific journals. As found, variations across the two fields of knowledge studied were enormously marked. Results of the present research may be of help for research article writers, particularly novice writers, to learn more about the socio-rhetorical conventions and prevalent discursive strategies established in their own specific disciplinary community.

INTRODUCTION

As a genre in academic context, the research article (hereafter RA) abstract has lately provoked great motivation in research because of its major role in academic community. It acts as a "time-saving device" which lets readers know the precise content of the article. That is, through reading the RA abstract, readers can evaluate whether the article deserves to be given more attention or not (Martin-Martin, 2003). In the same line of argument, Hyland (2000, pp. 64-65) describes that due to the competitive character of the research community, RA abstracts serve as an "advertising means" to call readers' attention towards the whole research paper.

Many scholars have worked on the abstract section of RA (Chan & Ebrahimi, 2012; Ghadessy, 1999; Hu & Cao, 2011; Hyland & Tse, 2005; Khedri *et al*., 2013; Lores, 2004; Martin-Martin, 2003, Pho, 2008). As found by some researchers (Dahl, 2004; Hyland, 2000; Lores, 2004, Samraj, 2005), abstracts appear to be a separate genre, not solely the replication of RA. Lores (2004) mentions that these two genres of communication in the academic setting differ from each other regarding their function, rhetorical structure, and linguistic realisation. It is well-known that in written academic genres, namely RA, textual elements are realised through various linguistic resources, and among them, metadiscourse markers. They help writers to make judgment about what they write and to convince audiences about the significance of the position supposed in the abstract and the whole study (Crismore *et al*., 1993). In this sense, Garcia-Calvo (2002) adds that looking at metadiscourse in abstract would let us grasp the application of metadiscoursal features as a persuasive tool in order to create tighter and more influential abstracts.

By definition, metadiscourse refers to "self-reflective linguistic expressions referring to the evolving text, to the writer, and to the imagined readers of that text" (Hyland, 2004, p. 133). Metadiscourse markers are facilitating tools in social communications which contribute to producing knowledge within the discipline and owing to the divergent nature of disciplines, metadiscourse usage is various between disciplines (Hyland, 2005, p. 143). Therefore, it would be advantageous to work on abstracts from the metadiscursive perspective and see how abstract writers from different disciplines shape their knowledge claims by the use of metadiscoursal features.

Rejecting the Hallidayan (1973) duality of textual and interpersonal macro-functions of language and adopting Thompson's (2001) key terms, "interactive" and "interactional" resources as two inter-related features of interaction, Hyland (2005) contributed his novel pragmatically developed model which considers all metadiscourse as interpersonal. To him, this model "takes account of the reader's knowledge, textual experiences and processing needs and that it provides writers with an armoury of rhetorical appeals to achieve this" (Hyland, 2005, p. 41). He categorised metadiscourse into two broad resources: interactive and interactional.

The former, concerns with organising the discourse and indicates the extent to which the text is constructed based on the readers' demands in mind. Interactive features are of five types: transitions markers, frame markers, endophoric markers, evidentials and code glosses. On the other hand, interactional domain of metadiscourse deals with the approaches writers interact with audience commenting on argumentation, intruding their feelings, attitudes and commitment into the text. Through these markers, writers are able to share their ideas in a clearer way and also to bring readers into the discourse by allowing them to give feedback about the information given. Hedges, boosters, attitude markers, engagement markers and self-mentions compose the subcategories of interactional metadiscourse markers (Hyland, 2005, pp. 46-53).

In Hyland's (2005, p. 44) words, interactive markers "primarily involve the management of information flow'', whereas interactional metadiscourse is ''more personal'' and involves the reader more overtly in the text by commenting on and evaluating the text material. As such, since interactional metadiscourse are more directly and manifestly dealt with interpersonality, we have confined our study to this domain.

In literature, numerous studies have been devoted to the notion of metadiscourse through different genres and from different perspectives (Abdollahzadeh, 2011; Crismore *et al.*, 1993; Dafouz-Milne, 2008; Gillaerts & Van de Velde, 2010; Hu & Cao, 2011; Hyland, 1998, 2005; Hyland & Tse, 2004; Khedri *et al.*, 2013; Lindeberg, 2004; Mur-Duenas, 2011; Vande Kopple, 1985) Among them, Lindeberg (2004), Gillaerts and Van de Velde (2010) and Khedri *et al.* (2013) have incorporated the essence of metadiscourse in RA abstracts. As evidence, Khedri *et al.* (2013) set out a work on exploring interactive metadiscourse markers in academic RA abstracts in the two disciplines of Applied Linguistics and Economics. They found pronounced socio-rhetorical variations in the ways applied linguists and economists construct their argumentations through interactive metadiscourse features. Gillaerts and Van de Velde (2010) also worked on the status of hedging and boosting devices in the abstract section of RAs, but in a historical sense. Lindeberg (2004) investigated two interactional metadiscourse resources, hedges and boosters, as promotional and mitigated strategies not only in RA abstracts but also other rhetorical sections of article in three business fields. Considering the existing literature, to the best of the authors' knowledge, the inquiry area of metadiscourse, especially interactional markers in the well-established distinct genre of RA abstracts, remains unclear and needs further works. Briefly speaking, to bridge the gap, the present study attempts to shed more light on the matter of interpersonality in RA abstracts through interactional metadiscourse markers by focusing on the possible similarities and variations across two different disciplines. To this end, this study seeks to answer the following questions:

1. What are the types of interactional metadiscourse markers used in RA abstracts in Applied Linguistics (AL) and Economics (Eco)?

2. Is there a significant difference between the two disciplines in focus in regards to the manifestation of interactional metadiscourse markers?

METHOD

Corpus compilation

The corpus of this comparative and contrastive research comprises sixty RA abstracts. Details of the corpus are as follows:

- **Discipline**: AL and Eco. Within the scope of the current research, two disciplines were selected without rhyme or reason. Following Becher's (1989) taxonomy of disciplines, both grouped under the category of soft sciences. AL was chosen mainly due to the fact that the researchers are ESL teachers who teach writing, which includes technical writing of this nature and, likewise AL, Eco symbolizes an area which belonged to the same sciences, soft. To add on, fairly few works have been conducted across soft sciences disciplines, for instance, Eco with AL (Hyland, 1998, 2001; Khedri *et al*., 2013). Thus, the present comparison projected into another dimension of surveying cross-disciplinary genre features within a specific field of knowledge (soft sciences) as argued.

- **Number of RA abstracts**: Sixty RA abstracts were picked up (thirty from each discipline).

- **Year of publication:** All articles from which the abstracts were taken have been published between 2000 and 2011.

- **Journal:** Informants knowledgeable in each discipline were consulted and asked to nominate and rank highly prestigious leading journals. After which, RA abstracts in AL were sourced from Journal of Pragmatics and English for Specific Purposes and all RA abstracts in Eco were taken from Oxford Economic Papers.

Following Grabe (1987) and Paltridge (1996), the corpus selection was based on three requirements: genre, ESP, and text type. As mentioned earlier (see Introduction), RA abstracts act as a separate communicative genre in academic arena, so they were selected to meet the first requirement. To meet the second, RA abstracts were solely extracted from two different disciplines. Last, to fulfil the third requirement, this study was narrowed down and focused on abstract section of RAs since its persuasive nature seemed suitable for the identification of metadiscourse elements which carry the interpersonal meanings.

The analytical categories

Based on the taxonomy of metadiscourse provided by Hyland (2005), four kinds of interactional metadiscourse markers including *hedges, boosters, attitude markers,*

TABLE 1
Details of the corpus

	AL	Eco
No. of RA abstracts	30	30
No. of journals from which the abstracts were taken	2	1
No. of RA abstracts taken from each journal	15	15
Length of RA abstracts (range)	98-270	78-150
Total number of words of RA abstracts	5372	3643
Total number of tokens	222	205

and *self-mentions* built the categories for analysis. The choice of interactional metadiscourse can be justified by the assertion of Williams (1981) and Crismore and Farnsworth (1989). In their studies, they found that scientific text authors who wanted to arouse their readers use logical, ethical, and emotional assertions. They showed more affinity with the audience by applying a bigger amount of interactional metadiscourse than interactive metadiscourse.

As defined by Hyland (2005, pp. 52-53), hedges reveal the writer's decision to realize the other voices and points of view. Hedges mark a writer's unwillingness to present propositional information categorically, such as: *perhaps, about, possible, might*. Boosters allow writers to close down alternatives and express certainty in what they say, such as: *it is clear that, definitely, obviously*. Attitude markers indicate writer's influential, not epistemic, viewpoint and attitude towards propositional content. Through attitude markers a writer conveys his/her personal feelings such as surprise, agreement, importance, obligation, frustration, and so on. Attitude is mainly expressed metadiscoursally by means of attitude verbs (*agree, prefer*), sentence adverbs (*unfortunately, hopefully*), and adjectives (*appropriate, remarkable*). And, self-mentions refer to the extent of author presence in terms of first person pronouns and possessives like: *I, we, our, my, etc.*

The analytical procedure

This study was qualitative in nature and the analysis was based on a comparison and contrast. The corpus was analysed through the following steps. Firstly, all RA abstracts were traversed in electronic search using MonoConc Pro (MP) 2.2, a text analysis and concordance programme, to identify elements which functioned as interactional metadiscourse markers in concern. Secondly, all the elements found were cautiously analysed individually and manually according to the context in which they occur. The main aim of this step was to be certain about their functions as metadiscourse. Finally, the frequency of the different categories of interactional metadiscourse markers in each discipline was calculated per 1000 words due to the fact that the size of both corpora is not the same. In the present research, as the threat

of unreliability and misinterpretation in text analysis has always been a concern, a small subset of the corpus (three RA abstracts from each discipline) were respectively double-checked by two experienced researchers in the field of Applied Linguistics.

RESULTS AND DISCUSSION

By applying interpersonal-driven elements, i.e. metadiscourse, writers try to interact with readers, secure acceptance from audiences and signal their own truth-value opinions and voices about information given. As Abdi (2002) remarks, the more interpersonal the nature of the metadiscourse markers mapped in a piece of text, the more the author meant to get these aims fulfilled. Table 2 reports the raw number of occurrences of analytical categories and their frequency per 1000 words in each field of knowledge.

With reference to the results pictured in Table 2, all analytical categories were applied by both AL and Eco authors in their RA abstracts. As the figures show, the overall use of interactional metadiscourse markers in the two major disciplines turned out to be markedly variant (41.32 versus 56.27 tokens per 1000 words in AL and Eco, respectively). Such a situation proposes that Eco writers attempted to build up a close relationship between themselves, text and readers. They appealed to interactional metadiscourse markers that would likely collaborate in creating suitable interactional influences. This tendency among economists may also indicate their consciousness of the required processes of text production and the generic and disciplinary needs established

by experts in the discourse community as well. The status of each category across both disciplines is described below and some examples extracted from the corpus are provided as well.

As shown, hedges played as the foremost analytical category in both corpora, though more frequently in Eco. They constituted 16.20 items and 13.77 items per 1000 words in Eco and AL in that order. From this finding, it follows that dissemination of new information tentatively is of significance in academic writing, at the most least in the soft sciences RA abstracts under investigation. Specifically, in soft sciences disciplines like AL and Eco, variables are continual and outcomes are somewhat provisional because they might be reliant on the data and/or measures employed. Consequently, authors do need to downplay their comments and make them tentatively so that addresses which may be keen on the implications of the work are convinced. The approval or refusal of knowledge claims is essentially based on the readers' judgment of the authority and trustworthiness of the research reported by writers. It is worthy to mention that hedges serve a crucial function in inducing readers of that authority and credibility. This is due to the fact that hedging devices contribute to alleviating the level of certainty attached to the propositional content. It could be pointed out that the most highly use of hedges by RA writers in the two corpora signals two more points: firstly, the awareness of both groups of authors of the essential significance of making distinction between fact and opinion in academic

writing; and secondly, the requirement for writers to commit to proposition in ways that their assertions may look sound and persuasive to readers. This result corroborates with Hyland's (2004, 2005) and Abdollahzadeh's (2011). Comparing with other categories of metadiscourse under his study, Abdollahzadeh (2011) found more hedges in the whole data. Hyland (2005) also recognised that the presence of hedging devices is more usual in the humanities and social sciences papers and this could be due to the more interpretive and less abstract nature of soft sciences disciplines. He adds that in soft fields, writers shape their arguments based on interacting with readers and creating a dialogue so as to allow them to share their own alternative voices. The followings are examples of actual use extracted from the corpus.

> **E.g. 1**: This variation *seems* to be due to the adoption of differing interpersonal strategies… [AL]

> **E.g. 2**:…because their actual pollution levels *are likely* to be lower than in nations with less effective regulation. [Eco]

Interestingly, apart from hedges, self-mentioning devices realised in the sub-corpus of Eco also constitute the most highly prevalent interactional features with an exactly similar frequency rate to that of hedges, 16.20 instances per 1000 words. Quite the reverse, these interactional resources were found as the least frequent interpersonal-driven elements employed by applied linguists accounting for only

2.79 instances per 1000 words. This finding reveals that applied linguists disposed much less towards signalling their authorial persona, establishing their credentials and showing themselves as original contributors and conductor of research, which all are functions served by self-mentioning devices such as I, we, the researcher, the author, etc. As a matter of fact, authors' decisions depend on their own disciplinary nature and its social and epistemological practices and signal an essential means of displaying membership. So, the possible justification for such a variation may refer to the nature of Eco. Eco appears in some way more competitive in essence as scholars in this field are seeking more to find a space in the international sphere through publication. To this end, self-mentions may be of use to help them to project themselves into the text explicitly, to express their authorial persona and authority and to make their work outstanding. In this regard, Kuo (1999) asserts that in research writing, the use of self-mentions strategically assists authors to maintain such authority by stating their convictions, accentuating their involvement to the field, and seeking credit for their contribution. In Hyland's (2001) words, self-mentions are crucial and serve significant functions in intervening the interaction between authors' statements and the discourse community they belong to. These metadiscoursal elements let authors shape an identity as both disciplinary servant and persuasive originator. By and large, despite the underuse of self-mentions by RA writers in AL, it can be claimed that

self-mentions are generally established in soft sciences fields including Eco and AL. Evidentially, in his study on textual elements which carry the meaning and function of self-mention in a corpus of 240 RAs written in eight disciplines from soft and hard sciences, Hyland (2001) found that RA writers in soft fields deployed these elements by far compared to their counterparts in hard fields. Text examples are:

> **E.g. 3**: In this paper *I* argue that a particular type of Anglo-American legal discourse treats spoken language as a text artifact. [AL]

> **E.g. 4:** *Our* results suggest that the euro has reduced the threshold size in order to export to Euro zone countries. [Eco]

As for the next interactional metadiscourse marker, boosters acted as the second most common features in the two major fields totalling 14.27 times in Eco and 13.03 times per 1000 in AL. Though it was commented earlier that RA writers in Eco tended more to mitigate their argumentations by the use of hedges in comparison to their counterparts in AL, results revealed that economists preferred to emphasise more on the ongoing propositions than applied linguists. It seems such a tendency of Eco writers may refer to the disciplinary nature of doing research and RA writing in their field as they signal their certainty and conviction more while contributing their own new findings to the research community. In doing so, they

suppress and fend off readers' alternative perspectives more than AL writers. As put forward by Hyland (2005), "by closing down possible alternatives, boosters emphasize certainty and construct rapport by marking involvement with the topic and solidarity with an audience, taking a joint position against their voices" (p. 53). Here are the examples taken from the corpus.

> **E.g.5:** The approach taken in this study *shows* potential for further research and pedagogic applications. [AL]

> **E.g. 6:** Lagged productivity is *strongly* associated with exporting…[Eco]

Concerning hedges and boosters, as found, both were highly used in the two corpora though hedges were realised more common. In this line of argument, Hyland (2005) reached the same result in his study. He found that both hedges and boosters appeared to be more frequent in the humanities and social sciences papers, with about 2.5 times as many devices overall and hedges specially robustly recognised. This is fundamental because soft disciplines are characteristically more argumentative and less abstract and their forms of argument are dependent more on a dialogic engagement and more explicit acknowledgment of different voices. It is true that any research endeavour is affected far more by contextual features and there is less control of variables, more variety of research findings, and commonly fewer plain bases for admitting new knowledge. Hence, RA writers in soft-knowledge disciplines

cannot comment on their discourses with the same assurance of joint assumptions. As put forwarded by Hyland (2005), they need to appeal much more to paying readers' attention on the claim-making dialogues of the discourse community, the claims themselves, rather than fairly unmediated real-world phenomena.

On the other hand, the fact that methodologies and outcomes are not close to further inquiry implies that soft disciplines' writers must work harder to establish the worth and implications of their study against possibly alternative explanations. This suggests that they are required to confine, or close down, potential alternative interpretations, fending them off by employing boosters to lay emphasis on the force of the writer's pledge, and thereby induce the readers by the use of the strength of the claim.

As for another interpersonal-driven feature, attitudinal linguistic features designate the writer's affective, rather than epistemic, attitudes, encoding an explicit positive or negative value (e.g., *agree, prefer, fortunately, importantly, logical, significant*) to information presented. In this vein, Hood (2004) points out that in academic writing, writers frequently present their stance and attitude whereby the grading of propositional information, specifically the strength by which writers get across their judgements and feelings towards findings, entities or behaviours. Once again, these kind of explicit judgements foreground authors and so were found more frequently in soft-sciences papers in both corpora where they contribute to a writer's persona, create a

research space and bring into being a linkage with the disciplinary community. With reference to the figures depicted in Table 2, the total distribution of attitude markers that characterised in the whole corpus was 98 cases. Of this number, 63 cases which accounted 11.73 hits per 1000 words were found in AL article abstracts and the other 35 cases equaling 9.60 hits per 1000 words were featured in those of Eco. This higher employment of attitudinal languages by applied linguists could reflect that they feel more at ease to express their subjectivity and feelings towards the proposition given. In other side, economists somewhat express their attitudes cautiously so as to keep the academic essence of their argumentations by sidestepping emotions. Although there is a discrepancy between the two disciplines, overall, both belong to soft sciences. Due to the inability of authors in drawing strongly on empirical demonstration or proven quantitative methods, they need to interact with readers more with the aim of involving and persuading them to turn from alternative interpretations (Hyland, 2004). The following examples manifest the real use of attitude markers in texts emerged from the corpus analysed.

> **E.g. 7:** Metadiscourse plays a ***vital*** role both in organizing the discourse and in engaging the audience. [AL]

> **E.g. 8:** Formal commercial collaborations can be ***important*** in overcoming the (information) sunk costs of entering export markets. [Eco]

TABLE 2
Frequency analysis of interactional metadiscourse in each discipline per 1000 words

	AL		Eco	
	Raw no.	Freq (er 1000 words)	Raw no.	Freq (per 1000 words)
Hedges	74	13.77	59	16.20
Boosters	70	13.03	52	14.27
Attitude markers	63	11.73	35	9.60
Self-mentions	15	2.79	59	16.20
Total	222	41.32	205	56.27

Note: *No=Number; Freq=Frequency*

CONCLUDING REMARKS

In academic writing, interactional metadiscourse markers serve an important function in producing a more cohesive and reader-friendly text assisting authors to interact with audiences and signal their truth-value towards propositional content. In the current research, interactional metadiscourse markers were found to manifest quite differently across the two disciplines in focus. In both fields, RA abstract writers were influenced by socio-rhetorically disciplinary norms and conventions while contributing their own new findings to their particular community. For instance, in the case of self-mentions, it was shown that Eco and AL article abstract writers showed a different affinity towards mapping these interpersonal-driven features as they acted as the leading category in Eco but the infrequently used features in AL.

However, there are some limitations in the present study. Here, we took a comparative approach and explored RA abstracts in the fields of AL and Eco with the aim of teasing apart disciplinary variations and similarities metadiscursivelly. To achieve a more comprehensive knowledge about the effect of disciplinary conventions and norms on metadiscourse usage, it needs to enlarge the corpus, and compare and contrast various fields of knowledge other than those put under investigation in this study regarding both interactive and interactional domains of metadiscourse. In addition, it is recommended that metadiscoursal features used in other academic genres should be explored, such as RA and its constituent rhetorical sections, Introduction, Method, Result and Discussion (IMRD, proposed by Swales, 1990). Scholars believe that research can clarify the communicative purpose of the various rhetorical sections of RA in influencing the degree of uncertainty, flexibility, writers' involvement, authorial persona, and attitudinal language through different linguistic expressions (Abdollahzadeh, 2001; Hopkins & Dudley-Evans, 1988; Salager-Meyer, 1994).

As implication, the results of this study can be of value to academics in fields of Eco and AL, and others who are interested in getting recognition from their community members through RA writing, and finally

publication in internationally leading journals. Research enables interested parties to become more familiar with public goals, norms and socio-rhetorical conventions conditioned by the practices of specific disciplinary communities.

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