A Diachronic Study of Interpersonality in Research Articles' Discussion Section: The Field of Applied Linguistics

Dr. Davud Kuhi, Zahra Mousavi

English Language Department, Islamic Azad University, Maragheh Branch, Maragheh, Iran

ABSTRACT

A common assumption in the analysis of academic texts is that there will be stability within a genre in a particular disciplinary field. Thus, it is assumed that applied linguistic articles will be broadly similar. But when considering articles from diachronic point of view, potential variation can be found. Following this assumption, a corpus of 50 research articles (13 articles from every year-blocks except the first year-block with 11 article, i.e. 1980-1985; 1986-1990; 2000-2005; 2006-2010) in the field of applied linguistics were compared in order to find out changes over time in terms of three prominent interactional markers; hedges, boosters, and attitude markers. Interactional resources were recorded in each paper and their frequencies of occurrences were computed per year-block. The purpose of this study was to understand what changed and what remained constant. The findings of the study revealed that the there was a revolutionary change over time. Generally, the degree of interpersonality increased over time in Applied linguistics research articles especially be means of using and devoting most of discussion section to hedging markers. It can be claimed that writers in high prestigious journals tend to apply high degree of resources to produce more persuasive texts that reflects competitive nature of academic discourse. The results of this study can be drawn on in academic writing courses for research students and novice writers in order to facilitate their achievement in the writing process.

Keywords: Metadiscourse, Interactional resources, research article, Discussion, diachronic perspective

INTRODUCTION

Over the last two decades, interactional nature of academic writing has been the focus of attention for many writers. They believe in linguistically unique ritualization in writing conventions of different sub-genres of a single genre, i.e. research article. In so doing, for example, it is necessary to strengthen, to detach their claims in a subject by showing commitment through boosting devices and hedging devices respectively. That is why, we should recognize academic writing as a social interaction which acts not only as a way for conveying information, but relates authors' stance both to the text and readers of that text.

Swales' (1990) notion of dynamic nature of genre can be considered as a rational for the importance of interactional nature of writing. As the conditions of social activity are in the state of flux, writing conventions changes in the light of those social changes. So diachronic analysis of language is interesting to do which concerns the evolution and change over time of that which is studied.

Strengthening and detaching devices, referred to them in the first paragraph, has been classified in interactional type of metadiscourse. Metadiscourse plays a pivotal role in organizing discourse and also in engaging the audience, extending the importance of meaning beyond the ideational to interpersonal and textual functions. As an interactive and rhetorical character of academic writing, metadiscourse establishes social and communicative engagement between writer and reader focusing on "those aspects of the texts which explicitly refer to the discourse or the writer's stance towards either its content or the reader" (Hyland, 1998a, p.438). In other words, academic writers generate texts as much to represent some external reality as to display their attitudinal positions in relation to the external reality and the recipients thereof. Thus, metadiscourse represents some internal stylistic map whereby an external reality or message is created and conveyed.

Interpersonal function of metadiscourse is assumed to be variable across different journals in different times, making variable demands on the part of the reader to understand the message. This important

issue is based on Greenberg's language typology of writer vs. reader responsibility for effective communication. Referring to this point, some authors (e.g., Hinds, 1987) have theorized that metadiscourse as part of academic rhetoric presupposes the writer's responsibility for the effective conveying of message. Along the same lines, Hyland (1998a) stresses the independence of metadiscourse as intimately linked to the norms and standards of special cultural and professional communities. Furthermore, the distinctive characteristics of genre or culture are believed to prompt writers to capitalize on varying degrees of metadiscourse in regard to their addressees (Crismore&Farnswarth, 1990; Hyland &Tse, 2004).

It is obvious that as the writing conventions vary across disciplines, cultures, genres, and sub-genres synchronically and may be diachronically, so academic writing demands specific conventions of its own discourse community. Accordingly, this study addressed the need for more research in contrastive diachronic analysis/study for the field of applied linguistics. Specifically, the main aim of this study was to conduct a contrastive analysis of interactional kind of metadiscourse feature of discussion sections in a corpus of RAs submitted by authors of different nationalities and published in high ranking journal, ESP journal, in order to specify the similarities and differences in the use of metadiscoursal devices in two different decades.

The present study attempts to answer the following questions:

- What Interactional Resources characterize RAs discussion section in the discipline of applied linguistics published in international journals during 1980s?

- What Interactional Resources characterize RAs discussion section in the discipline of applied linguistics published in international journals during 2000s?

- What metadiscourse differences are found in the RAs discussion over 1980s and 2000s?

Discourse and Metadiscourse

We use our language to communicate. In any form of language communication, two levels or planes of discourse are involved: the primary discourse level, which consists of propositions and referential meanings, and the metadiscourse level, which consists of propositional attitudes, textual meanings, and interpersonal meanings (Crismore, 1989).

Principles of Metadiscourse

Hyland (2005) and Hyland and Tse (2004) identify some key principles in identifying metadiscourse resources. They believed that applying functional perspective into account when analysing the text to recognize the resources is a vital one which should be taken into consideration, even in the process of theory building. By the application of functional theoretical framework in metadiscourse analysis, there will be interaction between writer and reader, so writers are considered as the conductors of the interaction with the readers. This underpins on three key principals of metadiscourse:

- Metadiscourse is Distinct from Propositional Aspect of Discourse

- Metadiscourse Equals to Writer-Reader Interaction

- External versus Internal Material

Definitions of Metadiscourse

Crismore (1985, as cited in Hyland, 2005) notes that metadiscourse can be defined both broadly and narrowly depending on what field we are working in: semiotics, philosophy, speech communication, rhetoric, and linguistics (sociolinguistics, psycholinguistics, speech act approaches, and functional sentence perspective).

Semioticians would define metadiscourse broadly, considering it as a sign. For them, metadiscourse is the semiotic interpretation of the discourse or text.

Philosophers approach the definition of metadiscourse with propositional logic, emphasizing logical structures and logical problems. They separate language into object language (used to refer to the reality) and metalanguage (used to refer to language). Crismore (1989) points out that this approach is too limited, since it considers object language as consisting of only propositional content and, therefore, excludes metalanguage.

Speech communication theorists also define metadiscourse broadly. They consider metadiscourse as metacommunication, that is, communication about communication whether it is verbal or nonverbal and whether it is about communication in general or about some specific communicative interactions.

Of all these descriptions of the term metadiscourse, two groups are identifiable: the first group as non-propositional or non-topical definitions and the second group as writer's act on research discourse. Harris' (1959) definition of metadiscourse can be regarded as a foundation for non-propositionality. He defined metadiscourse as "non-topical linguistic material" (p. 464). Williams (1981, p. 226) also considered metadiscourse as anything which "does not refer to the subject matter being addressed".

To sum up, metadiscourse devices are considered as tools/elements applied to the text by writers which shows writer's attempt in guiding and directing the readers' understanding of the discourse. This can lead to a successful interaction with readers as well as the production of coherent text. But, what has made difficulties for this approach to discourse, as will be discussed in the next section, is the distinction between propositional information and metadiscourse. Although metadiscoursal elements do not add new material to the text proposition but they are used to refer to that propositional elements of the text.

METHODS

The Corpus of the Study

The corpus of this study was restricted to 50 *Empirical/Experimental RAs* categorized in four groups: 1980-1985, 1986-1990, 2000-2005, 2006-2010. The research articles belonged to *English for Specific Purposes* (ESP henceforth) issues all published between 1980 and 2010 yielding a total of 50202 words. As to the focus of this study, diachronic comparison, the choice of RAs was based on their popularity in the field of applied linguistics and the ability to access them electronically in two different decades, i.e., 1980s and 2000s.

Justification for the Selection of Journals

Some criteria were taken into account in the sampling procedure of the journal, i.e., ESP. In this process, four lecturers that held a PhD in AL were individually interviewed − this is known as *informant nomination*, the established tradition of selecting and sampling in metadiscourse studies− (see, for example, Hyland 2000, 2002, 2007: Kuhi et al. 2012). They were asked to name and rank two most prestigious international journals defined as journals with higher degree of popularity and reputation among the academics of the field. According to the lecturers their choice was based on journal's high out rate, its high prestige in the field of applied linguistics, and also journals. Then the responses were scored and the journals were ranked based on what their score was. An important question at this point, however, might be to ask if writer's nationality (native or non-native) can affect the study. According to Lindeberg's (2004) view top English-medium journals' severity in review processing and also their demands according to their specific guidelines "make it irrelevant whether the RAs were written by native English speakers or not" (p.8). ESP Journal (English for Specific Purposes Journal) selected for sampling procedure by means of the order ranked by the academics.

Also, we restricted ourselves to one particular journal. In this way, we were able to control systematic variation due to editorial guidelines (stylistic and other).

Model of Analysis

In order to compare and analyze differences/ similarites across two different decades of AL RAs in terms of utilizing metadiscoursal devices, choosing a metadiscourse taxonomy and following it was necessary. The instrument applied in the analytic component of the present study was the model of metadiscourse suggested by Hyland and Tse (2004) for data analysis. This model suits our purpose best since it is supposed to move away from previous treatment of metadiscourse towards a model that can capture the underlying principles of academic writing. To this end, Hyland and Tse (2004) claim that metadiscourse needs to be conceptualized as an interpersonal feature of communication, which stands in sharp contrast to Crismore's, and William's views that metadiscourse contributes towards either propositional or interpersonal functions. Furthermore, unlike Mauranen and Bunton who see metatext as the writer's self-awareness of text, Hyland and Tse believe that "metadiscourse represents the writer's awareness of the unfolding text as *discourse*: how writers situate their language use to include a text, a writer and a reader" (p. 167). To justify the model for academic contexts, they conclude:

The framework we have suggested offers a comprehensive and pragmatically grounded means of investigating the interpersonal resources academics deploy in securing their claims. But while we believe this provides both a theoretically more robust model and a more principled means of identifying actual instances, we recognize that no taxonomy can do more than partially represent a fuzzy reality. (Hyland and Tse, 2004, p.175)

The model is specifically named a model of metadiscourse in academic texts, which is presented below:

Interactional Resources: They involve the reader in the argument:

- Hedges (H): They withhold writer's full commitment to proposition.

  Examples: might,perhaps, possible, about

- Boosters (B): They emphasize force or writer's certainty in proposition.

  Examples: in fact, definitely, it is clear that

- Attitude Markers (A): They express writer's attitude to proposition.

  Examples: unfortunately, I agree, surprisingly

Data Analysis Procedure and Reliability Matters

In order to meet the objectives of this study, discussion section of 50 RAs were read carefully word by word in order to identify interactional metadiscourse resources. In view of the fact that some items can perform both propositional and metadiscoursal function, in other words metadiscourse is context-sensitive and multidimential, this analysis was done by taking into account the context in which they actually existed in order to make sure that they are metadiscourse resources not ideational material

In order to increase the reliability of the findings, the inclusion of inter-rater might be necessary in metadiscourse studies. To do so, after determining all the instances of metadiscourse resources in discussion section of 50 RAs, in the second process of data analysis, the items were double-checked by MA graduate in TEFL who had done her thesis on metadicourse. Disagreements and also ambiguities were consulted to be sure about their main function in the context.

Finally,the identified resources were counted manually in each section. Afther counting the number of features, the researcher made use of frequency counts to analyze the data. Frequency counts were used (the following formula) to show the frquency of different metadiscoursal categories as found in two different sections of RAs:

$$F \; per \; 1,000 \; W = \frac{\text{Interactional MRs belonging to each category in R/D}}{the \; total \; number \; of \; words \; in \; R/D} \times 1,000$$

Also, the researcher took advantage of percentage figures by means of the following formula (Hyland, 2005) to show the distribution of each metadiscourse item between sections and also between groups.

$$Percent = \frac{\text{Interactional MRs belonging to each category in R/D}}{the \; total \; number \; of \; categories \; in \; R/D} \times 100$$

After calculating the frequency of each interactional resource from each Block, the total frequency of each was computed per decade. The results then grouped according to the two distinct years-blocks.

RESULTS AND DISCUSSION

Four different year-blocks of AL RAs were analyzed in terms of the distribution of metadiscourse resources to find out if there is any significant difference across four year-block. To do so, the frequencies were calculated per 1,000 words in each year-block. The results of the analysis showed that it was the third year-block (26.87 per 1,000 words) of AL RAs in which there was higher frequency of interactional metadiscourse resources. In other words, our results highlighted some interesting findings in the evolution of interactional metadiscourse resources across four year-blocks; the highest percentage belonged to the third block-year (2000-2005) and the least percentage to the first year-block (1980-1985).

Overall, as expected, the percentage of interactional metadiscourse resources indicated that to some extent they were more frequent in recent years' articles, published in high prestigious journal of ESP, than 80s articles.

**Table1.** *Overall Frequency of Metadiscourse Resources in four year-block of AL RAs' (per 1,000 words)*

| Applied Linguistics RAs					
Year-block	1980-1985	1986-1990	2000-2005	2006-2010	Total
Total words	9141	11536	14290	15235	50202
Total number of Interactional Devices	217	284	384	385	1270
F per 1,000 words	23.73	24.61	26.87	25.27	25.29
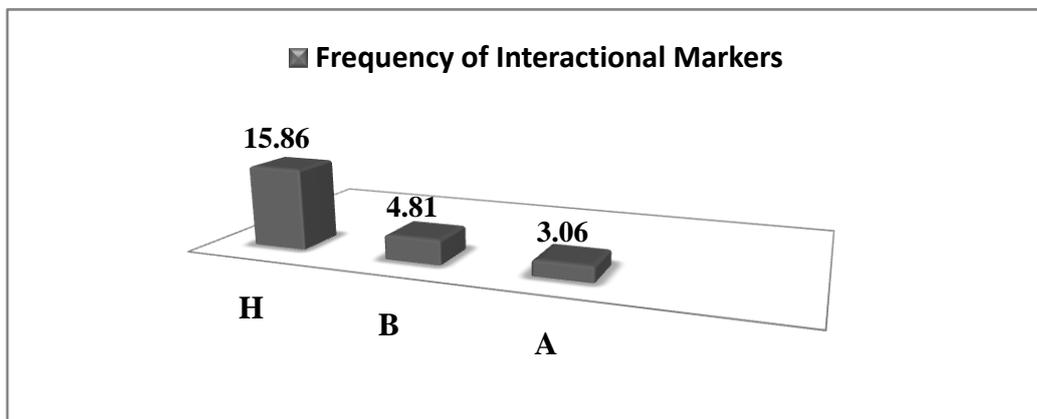
Figure1. *Category-Based Analysis of MRs in AL RAs' Discussions over the First Year-block (per 1,000 words)*

(H=Hedges; B=Boosters; A=Attitude Markers)
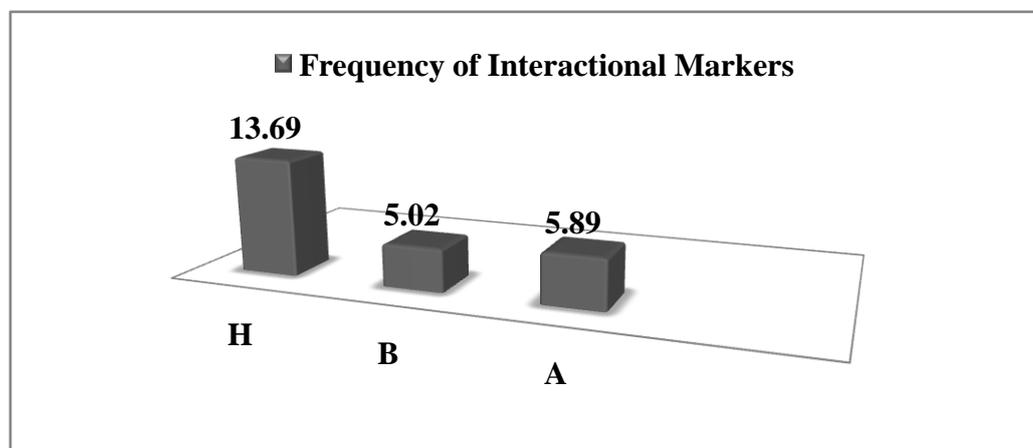
Figure2. *Category-Based Analysis MRs in AL RAs' Discussions over the Second Year-block (1986-1990) (per 1,000 words)*

(H=Hedges; B=Boosters; A=Attitude Markers)
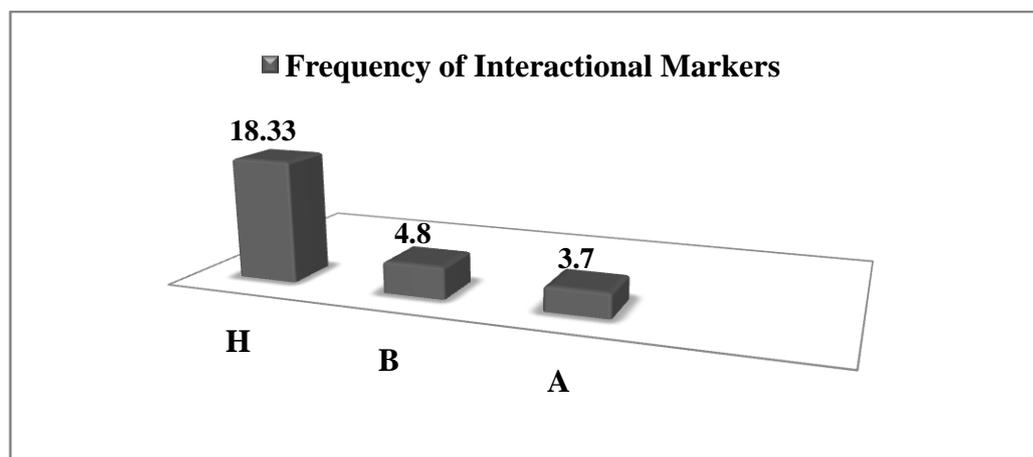
Figure3. *Category-Based Analysis of MRs in AL RAs Discussions over the Third Year-block (2000-2005) (per 1, 000 words)*

(H=Hedges; B=Boosters; A=Attitude Markers)
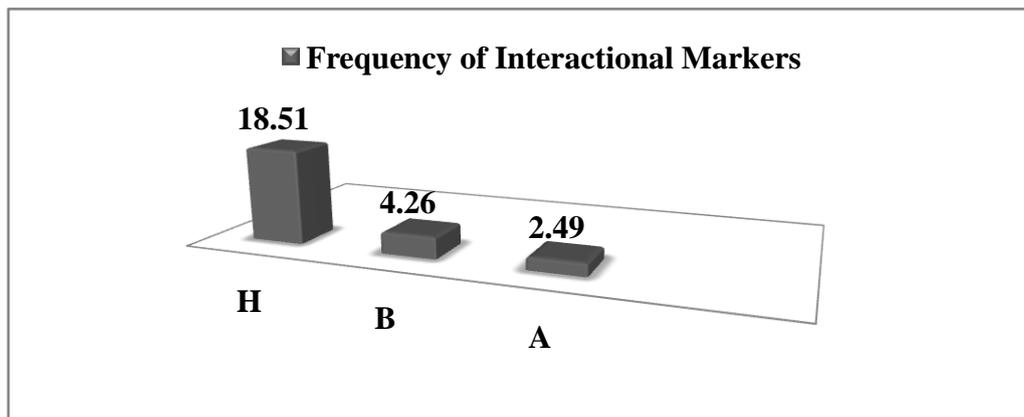
Figure4. *Category-Based Analysis of MRs in AL RAs' Discussions over the Fourth Year-block (2006-2010) (per 1, 000 words)*

(H=Hedges; B=Boosters; A=Attitude Markers)

These differences can be explained by resorting to the evolutionary behavior of years which may affect the degree of writer-reader relationship, realized by means of different linguistic resources.

As RA discussions gain importance and become the focus of attention in academic discourse community, so both the factual information and interactional features play important role in creating writer-reader relationship. This is supported by three important factors gained in this study. First, the increase in the average length of the RA discussions over time; second, being as a separate subgenre in RAs over time and third, their subjective nature in soft disciplines which demand far more use of interactional devices, especially hedges over time. So it can be said that the longer RA discussions in recent years display a higher density of interactional metadiscourse. Hyland (1998) also notes that hedges represent about one in every 36 words in Discussion sections and it has been found out that hedging instances rose in articles related to 2000s when compared with those related to 1980s. This reinforces Myer's (1989) contention that most hedging devices can be seen in Discussion sections of research articles because it is here that an author needs to show commitment while leaving open the possibility of being mistaken.

This means that the longer, recent RA discussions contain both more factual information and metadiscourse, this can also be considered firmly true if we take into account the omitted interactional (self mentions, and engagement markers). This is in concordance with what has been found in Hyland's (2000) study.

 'Hedges' and 'attitude markers' were the most frequently used subcategories of interactional category in the discussion section of articles specially those related to the third year-block (2000-2005). Considering hedges in the discussion section, as Hyland (1998a) puts,"[i]t is in Discussions that authors make their claims, consider the relevance of results and speculate about what they might mean, going beyond their data to offer the more general interpretation by which they gain their academic credibility. The level of generality, and therefore the density of hedges, is much higher here, as explore the ratifications of their results" (p. 154). So as it has already been shown in results section above, an increasing number of hedging markers in the third year-block, including the words indicate, suggest, perhaps, often, play the most important role in reflecting this sections' communicative purpose. In other words they can be considered central to the thread of discourse in the section of articles.

The results go in line with Atkinson (1996) results, which show extensive utilization of markers over a time. Although the focus of mentioned studies was on citation marker as one of the components of interactive category, but all have been in agreement about the revolutionary change in academic writing. Salager-Meyer's (2002) study on medical research articles can be a proof here. They found a kind of revolution in argumentative parts of research article, namely discussion section, in the early 20th. But the results obtained in the present study are not in line with what Gillaerts&Velde (2010) indicated. Their study indicated changes in the course of past 30 years. According to them, the degree of interpersonality realized by hedges, boosters and attitude markers diminishes over time. This difference can be attributed to the genre difference. As two genres of abstract section of research

articles and discussion section of articles possess different communicative purposes, the frequency of features applied can be of difference.

Overall, according to the results of this research, it can be enlightening to point out that there is a movement to subjectivity rather than objectivity. Accordingly, writers tend to apply linguistic features carefully to show their stance and to create a place for readers. In other words, the changes occurred when the functions and audiences of particular academic community developed over the time.

CONCLUSION

The results of this study showed that the metadiscoursal elements in general, have undergone some interesting changes in 1980s and 2000s, named as evolutionary changes. Moreover, the findings of the present study revealed that length changes can be accounted for rhetorical changes according to the communicative purposes of different and specific genres. Subsequently, these changes result in evolutionary nature of academic writing.

There was a notable difference between the use of hedges, boosters, and attitude markers, representing the relative use of these markers in each decade. It can be observed that the relative use of three markers rises noticeably. Hedges, constituting the most popular class of interactional devices in any four year-blocks, gain relative importance over time. So, their use in relation to the other interactional devices, boosters and attitude markers, is increasing.

As we hope to have demonstrated in the previous sections, discussion sections can be said play an important role in persuading the readers by high density (more hedged discourse and less boosted discourse). This is possible by performing the following actions: 1) the authors stake claims about how their results integrate with and contribute to disciplinary knowledge (Basturkmen, 2012); 2) the author steps back and takes a broad look at the findings as a whole, trying to move the readers back from the specific information presented in the results section to a more general view of how the findings should be interpreted (Weissberg and Buker, 1990).

Considering the above, in our idea it can be concluded that, there is a direct relationship between academic writing output and writers' awareness of its convention. Writers consider the writer-reader interaction most in the recent decade's articles.

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