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Interactive metadiscourse in research articles: A comparative study of paradigmatic and disciplinary influences

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Abstract

This article reports a comparative study of interactive metadiscourse in quantitative and qualitative research articles across the disciplines of applied linguistics, education, and psychology. Drawing on Hyland's metadiscourse framework, the study examined the use of five types of interactive metadiscourse, together with their subtypes, in a corpus of 120 research articles. Quantitative and qualitative analyses revealed clear cross-paradigmatic differences in the incidence of reformulators, comparative and inferential transitions, sequencers, and non-linear references. The analyses also identified marked cross-disciplinary differences in the use of exemplifiers, comparative transitions, linear references, and integral citations. These observed differences are interpretable in terms of the contrasting epistemologies underlying the qualitative and quantitative research paradigms and the different knowledge-knower structures prevailing in the disciplines under investigation.

Keywords: Disciplinary discourse; Epistemology; Interactive metadiscourse; Knowledge-knower structure; Qualitative research; Quantitative research

1. Introduction

This article reports a corpus-based study of how academic writers from three social science disciplines use interactive metadiscourse in quantitative and qualitative research articles (RAs). The importance of metadiscourse to academic communication has received growing scholarly attention over the past few decades (Hyland, 1998b, 2005a; Mauranen, 1993; Vande Kopple, 1985), and a plethora of studies have examined its use in various types of academic writing, particularly in the prestigious academic genre of RAs (e.g., Abdi, 2002; Abdi et al., 2010; Dahl, 2004; Del Saz Rubio, 2011; Hyland, 1998b, 2005b; McGrath and Kuteeva, 2012; Mur Dueñas, 2011; Peterlin, 2005). There are diverse conceptualizations and classifications of metadiscourse (Ädel and Mauranen, 2010). In her review of previous research, Ädel (2006) distinguishes a broad and a narrow approach to conceptualizing metadiscourse. The broad approach defines metadiscourse as covering both linguistic resources drawn on for textual organization (i.e., textual functions) and those deployed to communicate authorial attitudes (i.e., interpersonal functions). The narrow approach, by contrast, delimits

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metadiscourse as comprising only linguistic elements that are used to achieve textual functions. In this study, we have adopted the broad approach, as instantiated by Hyland's (2005a) interpersonal model of metadiscourse, for several reasons. First, as Ädel (2006:180) points out, the narrow approach ''restricts the concept of metadiscourse too severely'' by leaving out writer–reader interaction. Second, the separation of textual from interpersonal functions by the narrow approach fails to recognize that ''all metadiscourse is interpersonal in that it takes account of the reader's knowledge, textual experiences, and processing needs'' (Hyland and Tse, 2004:161). Finally, Hyland's metadiscourse model has been widely applied in previous studies of metadiscourse; thus, its adoption in this study would allow our findings to be compared with those from the extant body of research.

Hyland's framework defines metadiscourse as reflective language used by the writer/speaker to interact with the reader/hearer in a specific context of communication and draws a distinction between interactive and interactional metadiscourse. In written discourse, interactive metadiscourse is used to organize a text in anticipation of readers' needs and to facilitate their comprehension by guiding them through the text, whereas interactional metadiscourse is deployed to signal the writer's epistemic stance on propositional information and his/her attitude toward readers so as to involve them in the joint construction of the text (Hyland, 2005a). Although both types of metadiscourse are essential to successful academic communication, most previous studies focused on interactional metadiscourse in RAs (e.g., Abdi, 2002; Abdollahzadeh, 2011; Hyland, 1998a, 2005b; McGrath and Kuteeva, 2012). Furthermore, with notable exceptions (e.g., Khedri et al., 2013), the small number of existing inquiries into interactive metadiscourse (e.g., Bunton, 1999; Dahl, 2004; Hyland, 1999, 2007; Peterlin, 2005) typically examined only a subset of interactive resources each time, which made it difficult to identify common mechanisms shaping the use of interactive metadiscourse as a whole. This study set out to bridge these gaps by investigating all types of interactive resources in Hyland's metadiscourse framework in a cross-paradigmatic and cross-disciplinary comparative research design.

2. Background of the study

2.1. Disciplinary variations in the use of interactive metadiscourse

Research on metadiscourse has often centered on cross-disciplinary comparisons since academic writers from different disciplinary communities are expected to follow different conventions in knowledge production and communication (Becher and Trowler, 2001; Hyland, 2000). Academic disciplines are traditionally classified into ''hard'' and ''soft'' ones according to the nature of knowledge produced (Becher and Trowler, 2001). This division parallels Bernstein's (1999:162) distinction between ''hierarchical knowledge structures'' and ''horizontal knowledge structures'' in intellectual fields. Simply put, the hard disciplines or hierarchical knowledge structures view scientific knowledge as cumulative, empirically grounded, value-free, and constitutive of general theories which can be verified through invariant procedures and consensual criteria. The soft disciplines or horizontal knowledge structures, on the other hand, see knowledge as reiterative, contextual, value-laden, and relying on argumentation rather than clear-cut, universally shared criteria for verification. These perceived differences between intellectual fields motivated previous studies of cross-disciplinary variations in metadiscourse, which found systematic differences between hard and soft disciplines in the use of both interactional metadiscourse (e.g., Hyland, 1998a,b, 2005b; Hyland and Tse, 2004) and interactive metadiscourse (e.g., Dahl, 2004; Hyland, 1999, 2007; Peacock, 2010).

With regard to interactive metadiscourse, which is the focus of the present study, Hyland (2007) reported that the hard and soft disciplines included in his corpus of 240 RAs differed markedly in the use of code glosses, a type of interactive metadiscourse for reformulating or exemplifying propositional meaning (e.g., *in other words, for instance*). Specifically, while the hard disciplines made more frequent use of code glosses for reformulation, the soft disciplines employed them for exemplification more often. Cross-disciplinary differences along the hard-soft line were also found in an earlier study (Hyland, 1999) of another type of interactive metadiscourse, evidential markers (i.e., references to information from other texts). RAs in the soft disciplines were found to use notably more evidential markers than those in the hard disciplines. Furthermore, non-integral evidential markers (where the cited source is not syntactically part of the citing sentence) dominated disciplines like physics or engineering, whereas integral evidential markers (where the cited source is a syntactic constituent of the citing sentence) were more frequently found in disciplines such as applied linguistics and philosophy. Finally, although all disciplines preferred a summary or paraphrase of referenced information, only the soft disciplines used direct quotations from cited sources.

Research on other types of interactive metadiscourse showed a similar contrast between hard and soft disciplines. Peacock (2010) compared the use of linking adverbials (which overlap to a great extent with Hyland's transitional markers) in 320 RAs across eight disciplines divided into sciences and non-sciences. The results showed a clear tendency for the science disciplines to use fewer linking adverbials than the non-science disciplines. Parallel hard-soft discrepancies were also observed in the use of endophoric markers (e.g., *as noted above*) and frame markers (e.g., *to sum up*) or the so-called locational and rhetorical metatext (Dahl, 2004). Based on a corpus of 180 RAs sampled from