Gearing the Discursive Practice to the Evolution of Discipline: Diachronic Corpus Analysis of Stance Markers in Research Articles’ Methodology Section

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Abstract

Despite widespread interest and research among applied linguists to explore metadiscourse use, very little is known of how metadiscourse resources have evolved over time in response to the historically developing practices of academic communities. Motivated by such an ambition, the current research drew on a corpus of 874315 words taken from three leading journals of applied linguistics in order to trace the diachronic evolution of stance markers in methodology section of research articles from 1996 to 2016. Hyland’s (2005b) model of metadiscourse was adopted for the analysis of the selected corpus. The data were explored using concordance software AntConc (Anthony, 2011). Moreover, a Chi-Square statistical measure was run to determine statistical significances. The analysis revealed a significant decline in the overall frequency of stance markers in methodology section of RAs. Interestingly, this decrease was entirely due to the overall decline in the use of self-mentions. Approaching interactional dimension of academic writing from such a diachronic perspective, it might be argued that the very selective use of stance markers by academic writers over time means metadiscourse does not operate in vacuum and is sensitive to changes within disciplines and their academic practices.

Keywords: applied linguistics, diachronic, metadiscourse, stance, methodology
Introduction

It has been pointed out by many researchers of higher education that the concept of a discipline is not a straightforward one (Becher & Trowler, 2001). In fact, it is possible to view disciplines in a range of different ways. They have been seen as institutional conveniences, networks of communication, domains of values, and modes of enquiry. Since the mid-1980s much has changed in disciplines around the world, as well as their academic practices. It has become known that disciplines are not stable and static bodies, and that they are “becoming highly complex and even more dynamic; they are shifting, boundaries are changing and there are more subdisciplines than ever” (Trowler, 2014, p.5). In an insightful study, Becher and Trowler (2001) looked at disciplines through a structural framework, noting how they are manifested in the basic organizational components of the higher education system and identified six structural changes which have great influence on «academic tribes» and their «territories». These changes are identified as globalization, massification, regulation, market-orientation, efficiency, and fragmentation.

Trowler, Saunders, and Bamber (2012) have also recognized other powerful structures such as technologies and managerialist ideology and practices as well as the significance of agency influential in shaping disciplinary practices. In Trowler’s (2012) view, this constellation of factors has resulted in radical shift of academic practices from being very loosely coupled to relatively tightly coupled to outside extra-disciplinary determinants in which the external forces increasingly influence the way academics behave and think.

Regarding the above-mentioned process of evolution and development, applied linguistics, as a relatively young discipline, should not be seen an exception (see, for example, Brumfit, 2004; Bygate, 2005; Davies, 1999; Kaplan, 2010). The most interesting issue in the history of AL which is regarded as “a major paradigm shift” (Rajagopalan, 2004, p.410) is the way it evolved from a dependent field primarily concerned with applying insights from linguistic theory to a transdisciplinary field of inquiry. As stated by Rajagopalan (2004) “this meant traversing conventional disciplinary boundaries to develop a brand new research agenda which, while freely drawing on a wide variety of disciplines, would remain
subaltern to none” (p.429). However, such a transdisciplinary move may also run “a risk of creating an imagined, but not actual unity among those who have been drawn into the field from diverse backgrounds, or a risk of creating an unnecessary boundary between the field and surrounding disciplines” (Kramsch 2018, p.7). In this respect, McNamara (2015, p.1) truly argues that expansion of applied linguistics presents particular challenges for applied linguists because it continuously pushes out and establishes new theories which “explicitly challenge the epistemological assumptions and methodological practices on which it relies”.

In fact, methodological challenges are one of the major challenges which transdisciplinary researchers face when applying and adjusting integrative research methods. In fact, quality standards in transdisciplinary research are not as clear-cut, which has led to conflicts between scientists and practice partners (Lang et al. 2012). For example, in recent years, government-funded quantitative research has increased because some authorities consider it to be more robust, rigorous, scientific, theoretical, and generalizable which has more to contribute to knowledge, theory, and policy than qualitative research (Freeman et al., 2007). This enhanced interest in conducting quantitative studies by applied linguistics scholars has been addressed by large number of studies. Accordingly, the use of quantitative research methods and statistics in the field of applied linguistics has increased considerably over the last two decades (Lazaraton, 2000; Benson et al., 2009; Gass, 2009; Richards, 2009).

It should be mentioned here that what we have outlined above could not take place without the constructive and constitutive functioning of the discourses of the discipline. Amongst the academic genres, research article as the “master narrative of our time” constitutes the most important channel for the presentation of new disciplinary knowledge (Hyland 2000a; Salager-Meyer 2001; Swales 1990; Swales 2004). Hence, as disciplines and their academic practices have continued to evolve, so too have the research articles by which their findings are primarily communicated. Accordingly, metadiscourse resources as one of the significant features of RAs have also gone through the same diachronic evolution process to fulfill new social and epistemological demands of discourse communities (Gillaerts & Van de
Gillaerts and Van de Velde (2010) found that the use of interactional metadiscourse markers especially boosters and attitude markers have undergone remarkable changes in the course of the past 30 years. Authors argue that this fall in may be related to a converging move of (applied) linguistics towards the hard sciences. In another study, Kuhi and Dust-Sedigh’s (2012) findings showed a considerable growth in the frequency of interactional metadiscourse features in the chemistry articles of native and Iranian journals during two decades. In authors’ view, the changes in the socio-historical context impose a pressure on the structure of academic genres and epistemological norms of science. In the same vein, Gillaerts (2014) found an overall increase of interactive metadiscourse coupled with a decrease in interactional metadiscourse in 60 abstracts from applied linguistics journal published from 1987 to 2007. In author’s view, these findings support the idea that there is an increasing tendency in applied linguistics towards more statistics and description.

Kuhi and Mousavi (2015) focused on the diachronic development of a number of metadiscourse features in the discussion section of research articles in applied linguistics published between 1980 and 2010. From authors’ point of view this increase in high prestigious journals may be related to an increasing desire of academic writers to produce more persuasive texts that reflects competitive nature of academic discourse. Finally, through the diachronic study of a corpus of 2.2 million words from articles in the top journals in four disciplines, Hyland and Jiang (2016a, 2016b, 2018a) found an overall increase of interactive metadiscourse and a significant decrease in interactional metadiscourse between 1965 and 2015. Authors argued that the shift in academic conventions may indicate changes” in the nature of disciplines, the influence of external funders and commercial sponsors.” (Hyland & Jiang, 2018, p.29). These studies meaningfully expand our knowledge of metadiscourse variation across disciplines and languages over time. A specific strength of all the studies is the discussion of connections between discourse variation and social practices of discourse communities.
From Hyland and Jiang’s (2016) point of view, successful research writers construct texts by taking a novel point of view toward the issues they discuss while anticipating readers’ imagined reactions to those views. According to Hyland and Jiang (2016), “this intersubjective positioning is encompassed by the term stance and, in various guises, has been a topic of interest to researchers of written communication and applied linguists for the past three decades” (p.1). However, like other features of disciplinary discourses, it is not a static and unchanging marker of professional research writing. In fact, over time, taken-for-granted conventions of disciplinary discursive practices constantly shift in response to changes in the dominant socio-cultural forces in society. This dynamic and unpredictable discursive practice may result in a feeling of uneasiness among those accustomed to teaching and learning fixed conventions of communication in academic English. Accordingly, negligence of this awareness can result in their considerable trouble in adopting their rhetorical practices to such changes, particularly in EFL context.

Following this tradition, drawing on a corpus of 4.3 million words taken from three leading journals of applied linguistics, we studied whether, and to what extent, stance markers have changed inside a single discipline in methodology section of research articles published in three leading journals of applied linguistics (Applied Linguistics, English for Specific Purposes, Modern Language Journal) during the two decades from 1996 to 2016. More specifically, our study attempted to answer the following research question:

Has the frequency of occurrence of stance markers changed in the methodology section of research articles published in three leading journals of applied linguistics (Applied linguistics, English for Specific Purposes, Modern Language Journal) between 1996 and 2016?
Method

Corpus

The corpus of this study consists of approximately 874315 words to track changes in stance markers in methodology section of research articles over time. The research articles, taken from three leading journals in applied linguistic discipline, namely, Applied Linguistics journal (AL), English for Specific Purposes journal (ESP), and Modern Language Journal (MLJ), created three corpora in three periods over the past 20 years: 1996-2002, 2003-2009 and 2010-2016.

The disciplinary scope of the corpus was restricted to applied linguistics as defined by Wilkins (1999) and as mentioned in the handbook chapters of applied linguistics (e.g., Kaplan, 2002; Schmitt, 2002; Davies & Elder, 2004). Having specified the discipline, in the next stage, the journals were selected on the basis of the three criteria set by Nwogu (1997): representativeness, reputation and accessibility. About 10 university lecturers in applied linguistics issues nominated eight journals based on the established tradition of selection and sampling in other metadiscourse studies—informant nomination—(e.g., Harwood, 2005a, 2005b; Hyland, 1999a, 2001a, 2002a, 2002b, 2002e). However, in terms of accessibility, only these three journals could be retrieved online over a span of 20 years. In terms of representativeness and reputation, the three selected journals were all leading journals in applied linguistics, indexed in the SCI with an average impact factor (IF) of above 1.5.

Model of analysis

Hyland’s (2005b) model of metadiscourse was adopted for the analysis of our corpora. Based on the proposed model, the features included for the analysis were defined as follows:

**Stance** refers to the “writer-oriented features” of interaction and concerns the ways writers comment on the accuracy of a claim, the extent they show their commitment to it, or the attitude they want to express to a proposition or the reader (Hyland, 2005b). It includes hedges, boosters, attitude markers and self-mentions.

- **Hedges** are used to indicate writers’ decisions to withhold complete commitment to a proposition for example *might, perhaps, possible.* (Hyland, 2005b).
Boosters are employed by the writers to express certainty and emphasize the force of propositions for example in fact, definitely. (Hyland, 2005b).

Attitude markers indicate the writers’ affective and emotional, rather than epistemic, attitude to suggested propositions, conveying surprise, obligation, agreement, importance, and so on for example unfortunately, I agree, surprisingly (Hyland, 2005b).

Self-mentions signal authors’ explicit presence in the text for example I, we, our, my. (Hyland, 2005b).

Procedure
The compiled potentially productive search items taken from the appendix of Hyland (2005b) were manually examined and counted with rigorous consideration of the functional meaning (see appendix), and converted to an electronic corpus using concordance software AntConc (Anthony, 2011). Due to pragmatic, internal, and multifunctional nature of metadiscourse items, authors, working independently, coded a 10% sample to ensure reliability with 95% agreement. Cases of disagreement were discussed until a common decision was made. After reading and coding all the papers, the frequencies of stance markers were calculated (per 10,000 words). Chi-square test was then used to determine statistical significances.
Results

Frequency of Stance Markers in Method Sections

The frequencies of stance markers in the method sections are provided in Table 1.

Table 1
Distribution of Stance Markers in Method Sections (1996-2016) (per 10,000 words).

<table>
<thead>
<tr>
<th>Stance Markers</th>
<th>96-2002</th>
<th>2003-9</th>
<th>2010-16</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedges</td>
<td>105.4</td>
<td>88.8</td>
<td>83.8</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(36%)</td>
</tr>
<tr>
<td>Boosters</td>
<td>63.1</td>
<td>59.8</td>
<td>53.9</td>
<td>176.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(23%)</td>
</tr>
<tr>
<td>Self-mentions</td>
<td>61.5</td>
<td>35.3</td>
<td>22.2</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(15%)</td>
</tr>
<tr>
<td>Attitude markers</td>
<td>70.7</td>
<td>60.3</td>
<td>53.4</td>
<td>184.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(24%)</td>
</tr>
<tr>
<td>Total</td>
<td>300.7</td>
<td>244.4</td>
<td>211.3</td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 1, hedges were found to have the highest proportion of use among the various types of stance features employed in method sections (36%), followed by attitude markers (24%), boosters (23%), and finally self-mention which came last (15%).

To determine whether there is a statistically significant difference between the frequencies, Chi-square test was conducted, the results of which are demonstrated in Tables 2 and 3.
Table 3

Results of Chi-Square Test of Stance Markers in Method Section

<table>
<thead>
<tr>
<th>Stance Markers</th>
<th>SM</th>
<th>H</th>
<th>B</th>
<th>Am</th>
<th>Sm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>15</td>
<td>3</td>
<td>0.7</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>df</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Asymp. Sig</td>
<td>0.0</td>
<td>0.2</td>
<td>0.7</td>
<td>0.2</td>
<td>0.0</td>
</tr>
</tbody>
</table>

SM= Stance Markers; H= Hedges; B= Boosters; Sm= Self mentions; Am= Attitude markers

As Table 3 markedly shows, stance markers have fallen significantly, with devices in all categories in this section ($\chi^2=15$, p-value=0.0). Interestingly, self-mentions have shown the steepest decline in method section over the past 20 years ($\chi^2=18$, p-value=0.0).

Discussion

In this article, we have tracked how stance markers have changed in the method section of RAs published in three leading journals of applied linguistics (Applied Linguistics, English for Specific Purposes, Modern Language Journal) between 1996 and 2016. Using Hyland's (2005b) model, we examined the articles from the selected leading journals of applied linguistics discipline, and witnessed that writers now use these explicit markers less than the past. This finding was broadly consistent with that of Gillaerts and Van de Velde (2010), Gillaerts (2014), and Hyland and Jiang (2016a, 2016b, 2018a).

Moreover, we uncovered a somewhat surprising picture, finding that this decrease was entirely due to the overall decline in the use of self-mentions. In fact, this shift to a more “faceless style of prose” possibly reveals “an increase in more empirically grounded and quantitative studies that restrict opportunities for more extensive overt stance taking” (Hyland & Jiang 2016, p. 17). Thus, this dramatic decline of self-mentions (-63%) might be explained by the fact that the much of the available space of the method sections over the past 20 years have likely been taken up with some combination of materials used and procedures, followed by the descriptions of the types of statistical analyses chosen requiring represent meanings in an objective and formal way, “as opposed to perhaps personalized accounts of teaching practices in earlier times” (Hyland & Jiang 2016, p. 17).
Accordingly, it might be argued that, dramatic falls in the use of self-mentions in method sections might be an indication of the growth of scientism “in the social sciences due to a more hard science orientation in their dominant methods and approaches” (Glynos & Howarth, 2007 cited in Hyland & Jiang 2018, p. 10). In fact, with standardized and unproblematic methodologies there is little practical reason to describe methods in any detail, “the author-centered approach seems to slide gradually and almost seamlessly into the object-centered one, until it is largely, if not completely, submerged in an object-centered rhetoric of methods” (Atkinson, 1999, p.28). For example:

- we focused on discussions of the formal versus informal and/or writing versus speech distinction.

As you might notice (see Table 1), although not statistically significant, attitude markers, hedges, and boosters have also declined over the two decades. Attitude markers registered a dramatic fall (24%) particularly as expressed by only, significant, important, and even. Over the past 20 years, the most common items of attitude markers in our study – only and significant – were used in different ways mainly to direct “readers to the persuasive strength of data or methodological practices rather than emotion” (Hyland & Jiang 2016, p. 10). For example:

- Group 3 only received direct error correction above their errors.
- there is a significant body of research, drawing on a wide range of methodologies, whose findings indicate that the metaphoricity…

Furthermore, hedges also registered a substantial fall (20%) over this 20-year period. This fall in the use of hedges perhaps indicates “a more measured epistemic stance and a more circumspect approach to authorial intrusion than in the past” (Hyland & Jiang, 2018a, p.27). May, Would, could, represented 63% of all hedges in 1996-2002 period and 25% in 2010-16 period, May remains the most frequently used hedging device within each year-block over time but its frequency fell by almost more than 50% over the period, as did other hedging modals. Would was the second top priority of hedges after may in 1996-2002 period and interestingly it disappeared from the top in the second and third year blocks. For example:

- teachers may choose collocations based on their L2 forms rather than their L1 forms.
- One **would** find this in grammar texts and situations where one is not completely familiar with the language shortcuts.

Boosters (16%) have also shown the substantial decline over the last 20 years. The most common forms of boosters of RAs were *show* and *find*. According to Hyland (2008), writers in the soft fields work harder to establish the significance of their work against alternative interpretations by using boosters frequently in method and result sections. Thus, the fall in the use of boosters and the greater use of such empirically oriented ones seem to represent a substantial shift from “a personal belief toward more empirical and data-supported commitments to claims” (Hyland & Jiang, 2016a, p.11). For example:

- This study aims to **find** out if business students, despite having experienced different previous instructional and independent learning contexts.

- On the basis of the previous study, the prediction is made with respect to the first research question that input measures will **show** a stronger correlation with L2 oral performance than starting age.

These findings might lend support to the view that “methodological and statistical reform movement” (Plonsky, 2015, p. 4) in quantitative research has resulted in a gradual and continuous change in some feature of stance markers over time, particularly, apparent in the dramatic falls of attitude markers, hedges, and boosters in method sections.

Approaching interactional dimension of academic writing from such a diachronic perspective clearly indicated that while particular sets of conventions and practices of a discipline may be dominant in a given age, they are not permanent. In fact, we think in line with Hyland and Jiang (2016a,2016b,2018a) that these academic/scientific discourses are not merely storehouse of arcane, abstract, monolithic and forever frozen in time. These changes are taking place and both expert and novice members of academic discourse communities should be able to adopt their rhetorical practices to them. Thus, it might be argued that diachronic perspective on stance markers contributes to teachers and novice writers’ awareness of the malleability of academic writing and its sensitivity to context along with
providing access to current practices for the creation and delivery of teaching materials in EAP courses.

**Declaration of interest:** none

**References**


abstract genre. In M. Bondi, & R. Lorés Sanz (Eds.), Abstracts in academic discourse: Variation and change (pp. 271-286). Bern: Peter Lang.


Nwogu, K. N. (1997). The medical research paper:


**Appendix: Stance Features**

**Attitude Markers**

admittedly; agree; agrees; agreed; amazed; amazing; amazingly; appropriate; appropriately; astonished; astonishing; astonishingly; best; better; complex; comprehensive; conclusively; consistently; correctly; critical; curious; curiously; desirable; desirably; difficult; disappointed;
disappointing; disappointingly; disagree; disagreed; disagrees; dramatic; dramatically; essential; essentially; even x; expected; expectedly; fortunate; fortunately; hopeful; hopefully; important; importantly; inappropriate; inappropriately; interesting; interestingly; key; main; major; meaningful; necessary; only; prefer; preferable; preferably; preferred; remarkable; remarkably; robust; shocked; shocking; shockingly; significant; striking; strikingly; surprised; surprising; surprisingly; unbelievable; unbelievably; understandable; understandably; unexpected; unexpectedly; unfortunate; unfortunately; unique; useful; unusual; unusually; usual; valuable.

**Boosters**

actually; always; believe; believed; believes; beyond doubt; certain; certainly; clear; clearly; conclude; conclusively; decidedly; definite; definitely; demonstrate; demonstrated; demonstrates; determine; doubtless; emphasize; establish; established; evident; evidently; find; finds; found; in fact; hold; incontestable; incontestably; incontrovertible; incontrovertibly; indeed; indisputable; indisputably; know; known; must; never; no doubt; obvious; obviously; of course; primarily; prove; proved; proves; realize; realized; realizes; really; revealed; show; showed; shown; shows; sure; surely; think; thinks; thought; truly; true; undeniable; undeniably; underscore; undisputedly; undoubtedly; without doubt

**Hedges**

about; almost; apparent; apparently; appear; appeared; appears; approximately; argue; argued; argues; around; assume; assumption; assumed; broadly; certain amount; certain extent; certain level; claim; claimed; claims; common; could; couldn't; doubt; doubtful; essentially; estimate; estimated; fairly; feel; feels; felt; frequently; from my perspective; from our perspective; from this perspective; generally; guess; hypothesis; hypothesized; indicate; indicated; indicates; in general; in most cases; in most instances; in my opinion; in my view; in this view; in our opinion; in our judgment; in our view; largely; likely; mainly; may; maybe; might; mostly; notion; often; on the whole; ought; partly; perhaps; plausible; plausibly; possible; possibly; postulate; postulated; postulates; presumable; presumably; probable; probably; proposed; quite; rather x; relatively; roughly; seems; should; sometimes; somewhat; suggest; suggested; suggests; suppose; supposed; supposes; suspect; suspects; tend to; tended to; tends to; tentatively; to my knowledge; typical; typically; uncertain; uncertainly; unclear; unclearly; unlikely; usually; virtually; view; would; wouldn't.

**Self-mentions**

I; we; our; us; me; my
Biodata

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