A Diachronic Study of Introduction Sections

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Abstract:
We analyzed the introduction sections of a hundred and eighty doctoral dissertations of L1 culture over the last fifty years to discover the change concerning the utilization of interactive markers. Interactive markers are employed by writers to guide the audience throughout the piece. More application of such markers makes the text reader friendly and easy to follow and the less application of them shows the respective writing is constructed to target a more specialized audience. Using Hyland (2005) model of metadiscourse, we analyzed our 262,564 words corpus for hard and soft disciplines in the three time intervals of 1966, 1986, and 2016. Findings of the study confirm that due to the overall lower deployment of interactive markers in the introduction sections of our corpus, the genre is likely meant to be read by community members rather than a general audience of diverse disciplines. No evident disciplinary difference was found except for the overall trend change which is positive and negative respectively in the hard and soft disciplines.

Keywords: introduction sections, interactive metadiscourse, diachronic change, academic writing, disciplinary differences

1. Introduction

The dynamic nature of academic writing makes the genre researchers to keep track of the changes of diverse genres of disciplinary diversity for different intentions including pedagogy. Texts are composed by disciplinary communities due to the culture of the respective community and the diverse aims and purposes. For instance, hard sciences generally try to discover and tell facts and processes involved in the universe. However, soft sciences intend to justify claims, ideas and thoughts.

Introduction section as a preliminary piece is set to provide readers with the required information about the whole body of work and induces them further to continue reading by emphasizing the research gap to be addressed by the study. Introduction genre has been surveyed

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independently and extensively since the introduction of CARS model. Focusing on the aims of this study, the genre has been metadiscoursively examined in the academic literature (Del Saz-Rubio, 2011; Kawase, 2015).

We focus on interactive metadiscourse to analyze the understudied genre of doctoral dissertation through time. Doctoral dissertation as an educational genre is often neglected in the genre studies due to the size. As to our knowledge, so far there has been no similar study of the same nature. The study is important in that it uncovers the change of introduction genre through a diachronic study and focuses on English as L1. Therefore the findings may guide both L1 and L2 graduate students in composing their writing. The aim of the study that is keeping track of the fifty years evolution in the deployment of code-glosses, frame-markers, transition-markers, and endophoric-markers will be addressed in soft and hard disciplines through the following general question: How does the introduction sections of doctoral dissertations change in five decades in terms of the application of interactive markers (code-glosses, transition-markers, endophoric-markers, and frame-markers) across the disciplines.

2. Literature Review

Metadiscourse markers are the discoursal resources which add no information to the content but help the writer encode the message that he wishes to be perceived by the audience. Therefore, studying these resources is as important as the content itself. Diachronic studies of academic discourse give us some insights into how the genre in question changes over time and the respective findings will be quite useful for various purposes such as syllabus designing and pedagogy. Some diachronic studies have been conducted to date in written discourse (Atkinson, 1996; Bazerman, 1988; Bondi, 2014; Hyland & Jiang, 2017; Shaw, Kuteeva, & Okamura, 2014).

However, thus far, a few studies have diachronically investigated metadiscourse (Bondi, 204; Gillaerts & Van de Velde, 2010; Gillaerts, 2014; Hyland & Jiang, 2016a, 2016b). Gillaerts and Van de Velde (2010) surveyed research articles and their abstracts to study interactional markers and found that abstracts tend to be more persuasive through the more deployment of boosters and research article in general is more hedged. They also reported that research article genre in the field of Applied Linguistics contains more propositional content than metadiscoursal which proves that the discipline is moving toward hard sciences writing tradition.

Bondi (2014) analyzed self-mentions and discovered an increase in general especially for "we" which indicated a bolder role for the author. Gillaerts (2014) focused on research article abstracts in the field of Applied Linguistics and studied the two metadiscourse types. He found a decrease in the frequency of interactional markers and an increase in the interactive markers. Hyland and Jiang (2016a, 2016b, & 2018) studied research articles in four soft and hard majors over fifty years and found a significant increase in interactive markers and a significant decrease in interactional markers. It should be noted that none of the above-mentioned studies has sought to examine assumptions regarding metadiscursive evolution of introduction sections alone. Building on interactive metadiscourse, our study of introduction sections of doctoral dissertation genre will lend further support and extend to the latest metadiscursive diachronic research.

3. Method

To analyze the disciplinary evolution in introductions of doctoral dissertation genre, four disciplines from soft and hard disciplines were selected namely Chemistry, Geology, History, and Philosophy. Ten doctoral dissertations from every discipline were selected from Proquest for each time interval, totally hundred and twenty dissertations, and converted to WORD using ABBYY PDF Transformer. A few dissertations did not have introduction as a stand-alone section, therefore, the section after abstract and before the first chapter was considered as introduction. After building our corpus as text files, we counted the words and manually surveyed and tagged the entire corpus applying the list of interactive markers proposed by Hyland (2005). Antconc was then employed for counting the frequency of occurrence. The interactive markers that were surveyed throughout our corpus will be explained below together with some examples derived from the corpus.

Table 1. *Length of the introduction sections.*

Word count	1966	1986	2016	%Change	Overall
Chemistry	5,989	19,522	32,596	292.93	58,107
Geology	9,420	11,699	49,122	344.08	70,241
Philosophy	11,984	25,876	51,492	214.92	89,352
History	6,138	7,200	31,526	355.16	44,864
Total	33,531	64,297	164,736	247.96	262,564

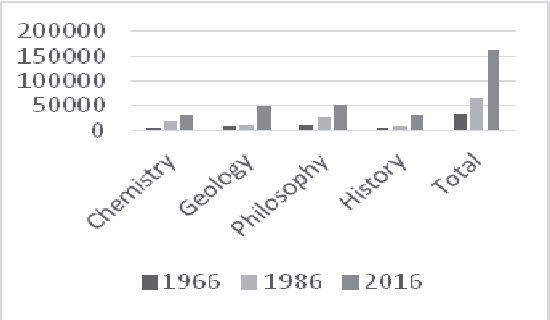


Figure 1. *Length of the Introduction Sections.*

Transition markers (transitions) smooth the cognitive interactions and mark transitions between sentences and clauses. According to Hyland (2005), such markers, which are mainly conjunctions and adverbial phrases, indicate additive, consequential or contrastive connections between ideas. Example:

1) The main advantages of the microwave discharge are that it is an intense localized discharge, *whereas* the rf discharge tends to spread unless screened. (Chemistry, 1966)

2) There are parallels with other energy production endeavours that may generate earthquakes; *therefore* I include examples from oil and gas production. (Geology, 2016)

3) Despite its impressive influence on a substantial body of literature, *however*, insufficient attention has been paid to critical evaluation of the analysis as a whole. (Philosophy, 1986)

Frame markers help organizing discourse and guiding readers through the text by explicitly sequencing and labelling text stages, announcing discourse goals, and indicating topic shift. Example:

4) Firstly, this project *aims* to revise perspectives on Caterina's individual identity (History, 2016)

5) It seems reasonable *at this point* to suggest that MAO A and B probably differ in terms of their amino acid sequence and/or their tertiary structure. (Chemistry, 1986)

6) The *purpose* of the present study is twofold. (Geology, 1966)

Endophoric markers (endophorics) provide readers with further propositional information by referring them to other parts of the text to help facilitate grasping the intended meaning crafted by the writer. Example:

7) A chart of Hogsty Reef, based on a British survey of 1920, is shown in Figure 2. (Geology, 1966)

8) As already noted in earlier chapters, the expatriates were ever demanding. (History, 2016)

9) It has been indicated above that the present study is intended to be a critical examination of Hobbes's notion of ***the safety of the people.*** (Philosophy, 2016)

Code glosses supply additional information based on the writer's predictions about the reader's background information to "convey meaning by describing, elaborating, paraphrasing and restating their afore-mentioned arguments" (Khedri et al., 2013, p. 324). Such features contribute to the readers' comprehension of text's intended meaning. Example:

10) Under appropriate reaction conditions, that is, where there is sufficient time for equilibration, strong base will yield the more stable heteroannulardiene. (Geology, 1986)

11) Dummett's position does not lean on the concept of 'will' or on the role an individual's will plays in creative mental activity such as, on Brouwer's view, mathematics. (Chemistry, 1966)

12) In counselling we are forced to note the one underlying emphasis and that is the attempt to work with the client to a greater self-realization. (Philosophy, 1966)

4. Results

A significant increase in the length of introduction sections is reported for all the disciplines presenting that introduction section as a stand-alone genre is gaining more attention from the academic scholars. For the sake of comparison, the frequency of occurrence was normalized for 10,000 words of our corpus. Overall, except for code-glosses, all the interactives show negative trend change. Interactive markers rise in 1986 and fall in 2016 in both hard and soft disciplines. As to the disciplinary variations, however, overall, the change is positive in the hard disciplines and negative in the soft disciplines. In addition, code-glosses and endophorics are more frequent in the hard-disciplines, but, frame-markers and transitions are more frequent in soft-disciplines. As to the overall frequency of interactives, both for each individual time interval and totally, soft disciplines employ more interactives than hard disciplines do (refer to Tables, 3, 4, & 5).

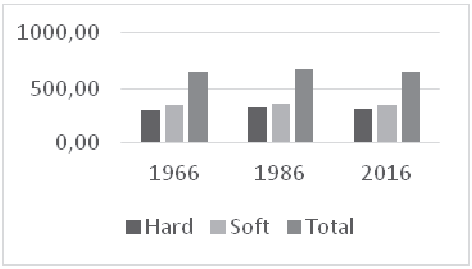
Table 2. *Interactive metadiscourse over time (per 10,000 words).*

Interactives	1966	1986	2016	Overall	%Change
CG	94.81	95.18	170.49	360.48	79.51
END	76.50	80.43	67.85	224.78	-10.50

FM	80.97	66.79	58.75	206.51	-29.55
TM	397.32	438.39	361.54	1197.25	-7.19
Total	649.60	680.79	658.63	1989.02	1.55

Table 3. *Interactive metadiscourse over time, soft and hard disciplines (per 10,000 words).*

Discipline	1966	1986	2016	Overall	%Change
Hard	298.58	321.19	315.78	935.55	5.89
Soft	351.03	359.61	342.85	1053.48	-2.22
Total	649.60	680.80	658.63	1989.03	1.55



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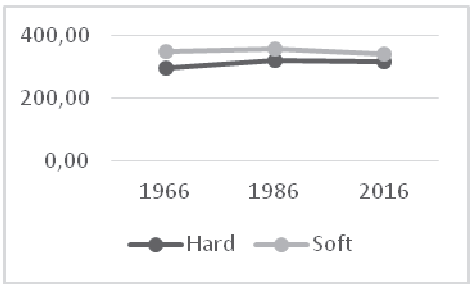

Chart 1. *Interactive Metadiscourse over Time (per 10,000 words).*

Table 4. *Interactive metadiscourse over time, hard disciplines (per 10,000 words).*

Interactives	1966	1986	2016	Overall	%Change
CG	55.83	56.03	111.84	223.70	99.97
END	55.68	42.03	47.75	145.46	-10.91
FM	28.52	28.54	23.77	80.83	-16.64
TM	158.55	194.59	132.42	485.56	-9.22
Total	298.58	321.19	315.78	935.55	5.89

Table 5. *Interactive metadiscourse over time, soft disciplines (per 10,000 words).*

Interactives	1966	1986	2016	Overall	%Change
CG	38.98	39.15	58.65	136.78	50.24
END	20.82	38.40	20.10	79.32	36.78
FM	52.45	38.25	34.98	125.68	-35.62
TM	238.77	243.80	229.12	711.69	-3.91
Total	351.02	359.60	342.85	1053.47	-2.21

The overall positive change of code-glosses shows that this marker has gained more importance throughout the years across the disciplines. As Table 6 illustrates, code-glosses are employed more in hard sciences.

Table 6. *Changes in code glosses by discipline (per 10,000 words).*

Discipline	1966	1986	2016	Overall	%Change
Chemistry	25.05	31.25	39.58	95.87	51.41
Geology	30.79	24.79	72.27	127.84	172.06
History	9.78	19.44	28.55	57.77	145.73
Philosophy	29.21	19.71	30.10	79.02	20.21
Total	94.81	95.19	170.49	360.50	79.51

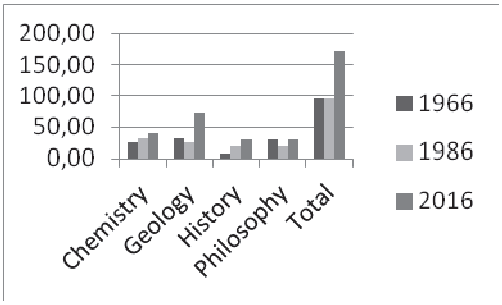

Figure 3. *Changes in Code Glosses by Discipline (per 10,000 words).*

Except for Geology with a negative change of endophorics over fifty years, Chemistry, History, and Philosophy had an increase in the use of such devices, however, the overall frequency shows a negative change as 1986 has been a peak and 2016 a fall. A slight rise and a sudden fall respectively in 1966 and 1986 can be found in the total frequency of endophorics.

Table 7. *Changes in endophorics by discipline (per 10,000 words).*

Discipline	1966	1986	2016	Overall	%Change
Chemistry	21.71	18.95	25.16	65.82	20.05
Geology	33.97	23.08	22.60	79.65	-34.15
History	1.63	5.56	4.76	11.94	226.64
Philosophy	19.19	32.85	15.34	67.38	17.86
Total	76.50	80.44	67.85	224.79	-10.50

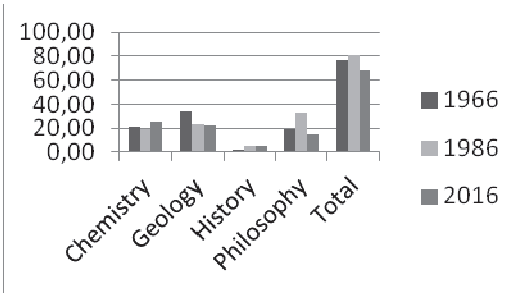

Figure 4. *Changes in Endophorics by Discipline (per 10,000 words).*

A gradual decrease can be seen in the overall frequency of frame markers over fifty years. However, Chemistry (%33.21) and History (65.41) faces a gradual increase of frame-markers over time.

Table 8. *Changes in frame-markers by discipline (per 10,000 words).*

Discipline	1966	1986	2016	Overall	%Change
Chemistry	8.35	9.73	11.35	29.43	33.21
Geology	20.17	18.81	12.42	51.39	-40.73
History	4.89	6.94	8.56	20.40	65.41
Philosophy	47.56	31.30	26.41	105.28	-49.81
Total	80.97	66.79	58.75	206.50	-29.56

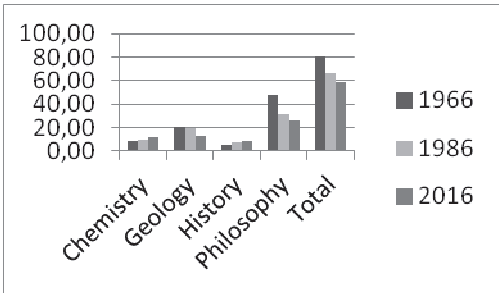

Figure 5. *Changes in Frame Markers by Discipline (per 10,000 words).*

All the disciplines are experiencing a negative change in the application of transition-markers. However, the trend change is positive for Philosophy (%14.49).

Table 9. *Changes in Transition Markers by Discipline (per 10,000 words).*

Discipline	1966	1986	2016	Overall	%Change
Chemistry	76.81	106.55	63.81	247.17	-1.39
Geology	81.74	88.04	68.60	238.39	-14.37
History	131.96	123.61	106.58	362.15	-20.11
Philosophy	106.81	120.19	122.54	349.54	14.49
Total	397.32	438.39	361.54	1197.25	-7.19

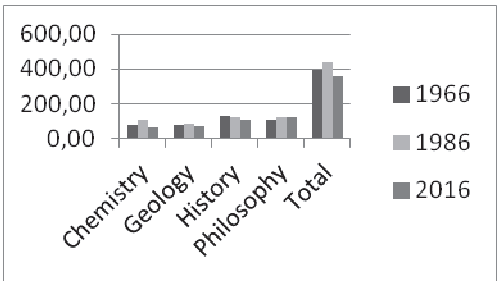

Figure 6. Changes in Transition Markers by Discipline (per 10,000 words).

5. Discussion and Conclusion

Very few studies (Hyland and Jiang, 2018; Gillaerts, 2014) so far have historically analyzed interactive metadiscourse in written discourse. This study is concerned with this under-researched area based on a corpus analysis of doctoral dissertation genre. A particular distinction of the study that no single study has landed so far is the analysis of the rate of change in interactive metadiscursive markers in introduction sections. As table 5 shows, despite the slight overall increase in the textual frequency of interactives which corroborate those of Gillaerts, 2014, who examined research articles' abstracts, exposing a global increase in the amount of interactives specifically throughout hard disciplines. they, such markers are facing a slower rate of increase comparing to fifty years ago, and even negative such as for soft disciplines. Rate of change in soft disciplines is from %2.4 (1966-1986) to %-4.6 (1986-2016), and hard disciplines is from %7.57 (1966-1986) to %-1.7 (1986-2016), with both having positive change of frequency in the first twenty years, and negative trend in the last thirty years.

However, hard disciplines' change of frequencies over fifty years is positive, but for soft disciplines is negative which supports the recent claims (Hyland & Jiang, 2016a, 2016b, 2018) that academic genres in the soft and hard majors are changing in the diverse directions.

The new study by Hyland and Jiang (2018), reiterates a lesser application of interactive markers in Applied Linguistics which supports the trends of our soft disciplines' corpus. Pattern of change in interactives across the hard disciplines reiterates leaning toward a more reader-friendly genre where writers aim at composing well-organized coherent writing. Perhaps this stems from the recent trend that hard sciences are moving toward interdisciplinarity encountering a wider audience of diverse majors. Although the focus of the study has been at the micro textual level, while analyzing the texts, it was found that dynamic parts of doctoral dissertations in hard majors such as discussion and conclusion parts are co-authored manuscripts. As a result, parts of dissertations especially in hard majors will be or were already published in inderdisciplinary journals targeting a variety of audience. Such a trend may ask for a greater application of metadiscursive features.

In sum, striking decrease in interactives of the four disciplines in 2016 suggests the less reliance of doctoral students on the application of such devices. Therefore, this study claims that we are moving toward organizing more specialized texts where no longer need to clarify and make the text as simplified and reader-friendly.

However, slower rate of increase in interactive markers indicate that propositional content is receiving more attention. As research shows, less application of metadiscourse in writing indicate different views toward knowledge. Therefore, fifty years of analysis reveals significant findings which cannot be recovered through the synchronous studies. A historical cross-disciplinary study of such helps research candidates in better structuring writings to be rhetorically and metadiscursively acceptable drawing on the conventions of disciplinary arguments. Therefore, tracing these patterns may help novice writers better produce a text where is both clear for audience and acknowledged by the conventional discursive practices of a particular disciplinary community. Acquiring the generic conventions in employing metadiscursive features leads to a well-composed dissertation. As texts are not static and practicing any writing undergoes significant transitions over time, keep tracking lexical and syntactic changes through diachronic textual analysis assist writers draft well-written pieces where better match the requirements of every single field.

REFERENCES:

Atkinson, D., *The philosophical transactions of the Royal Society of London, 1675-1975*, in "A sociohistorical discourse analysis. Language in Society", 25(03), 1996, p. 333–371.

Bazerman, C., *Shaping written knowledge*, in "The genre and activity of the experimental article in science", Vol. 356, University of Wisconsin Press Madison, 1988.

Bondi, M., *Changing Voices: Authorial Voice in Abstracts*, in M. Bondi, & R. Lores Sanz (Eds.). Abstracts in Academic Discourse: Variation and Change, Peter Lang, 2014, p. 243–270.

Del Saz Rubio, M. M., *A pragmatic approach to the macro-structure and metadiscursive features of research article introductions in the field of Agricultural Sciences*, in "English for Specific Purposes", 30(4), 2011, p. 258–271.

Gillaerts, P., *Shifting Metadiscourse: Looking for Diachrony in the Abstract Genre*, in M. Bondi, & R. Lores Sanz (Eds.), Abstracts in Academic Discourse: Variation and Change, Bern, Peter Lang, 2014, p. 271–286.

Gillaerts, P. & Van de Velde, F., *Interactional metadiscourse in research article abstracts*, in "Journal of English for Academic Purposes", 9(2), 2010, p. 128–139.

Hyland, K., *Metadiscourse: Exploring writing in interaction*, London, Continuum, 2005.

Hyland, K. & Jiang, F. K., *Change of attitude? A diachronic study of stance*, in "Written Communication", 3, 2016a, p. 251–271.

Hyland, K. & Jiang, F. K., *"We must conclude that…": A diachronic study of academic engagement*, in "Journal of English for Academic Purposes", 24, 2016b, p. 29–42.

Hyland, K. & Jiang, F. K., *Is academic writing becoming more informal?*, in "English for Specific Purposes", 45, 2017, p. 40–51.

Hyland, K. & Jiang, F. K., *"In this paper we suggest": Changing patterns of disciplinary metadiscourse*, in "English for Specific Purposes", 51, 2018, p. 18–30.

Kawase, T., *Metadiscourse in the introductions of PhD theses and research articles*, in "Journal of English for Academic Purposes", 20, 2015, p. 114–124.

Khedri, M., Heng, C. S. & Ebrahimi, S. F., *An exploration of interactive metadiscourse markers in academic research article abstracts in two disciplines*, in "Discourse Studies", 15(3), 2013, p. 319–331.

Shaw, P., Kuteeva, M. & Okamura, A., *Submission letters for academic publication: Disciplinary differences and promotional language*, in "Journal of English for Academic Purposes", 14, 2014, p. 106–117.