A Corpus-based Study of Interdisciplinary Variation of Metadiscourse in Pakistani Research Papers of Soft Sciences

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Abstract

Metadiscourse is a recent enterprise of applied linguists through which the *text-internal* nature of discourse is explored with reference *to persuasion, negotiation*, and *engagement* of the writers with their own discourses and the readers too (Hyland, 2005). Metadiscourse, with respect to genre, register, and cultural *situatedness*, has been the major foci of inquiries till now. However, patterns of interaction *situated* among different discourse communities of academics through metadiscourse need more attention in general and, in Pakistani context, in particular. Therefore, the current study intends to investigate *interactive* and *interactional* metadiscourse in Pakistani research discourses of English, Education, and History. For this purpose, we collected 52 research articles comprising corpus of 231529 words published in research journals recognized by Higher Education Commission, Pakistan. We applied Hyland's framework of metadiscourse for mapping expressions as metadiscursive. For identification of 300 metadiscursive markers proposed by Hyland, a recent corpus tool named *MetaPak* (Abbas et al. 201b) was used successfully. The study revealed noticeable variation in *occurrence* and *prototypicality* of metadiscourse employment in Pakistani research discourses while comparing with other international studies. This variation, consequently, may be considered one of the important factors causing *dialogic closure* in order to achieve persuasion, negotiation, and engagement of the international gate keepers, reviewers, and readers.

Keywords: *corpus, genre, Metadiscourse, Soft Sciences*

Introduction

Academic discourse has established its centrality in discourse studies owing to its multifaceted embodiment with genre and register variation within different cultures and discourse communities (Swales, 1990; Hyland, 2005). These intertwined facets (genre, register, culture and discourse community) have remained the focus of discourse analysts through different approaches such as textual analysis (Bhatia, 2002, 1993; Swales, 2004; Shehzad, 2010, 2011; Shehzad & Abbas, 2015, 2016), corpus analysis (Baker et al., 2008; Thompson & Hunston, 2000; Biber, 2006; Hyland & Tse, 2007), contextual analysis (Swales, 1999; Lillis

& Curry, 2010), and critical analysis (Lea & Street, 2000). Specifically, discourse organization and/or lexico-grammatical features have been the foci of most of these and many other investigations.

However, in academic discourse studies, the researchers focused on nature of *text/discourse* only and *audience* was not considered. Thus, the interaction of writers with their readers was considered necessary until the concept of metadiscourse was problematized and theorized (Vande Kopple, 1985; Crismore et al. 1993; Hyland, 2005; Ädel, 2006). Metadiscourse, in its holistic form, is primarily based on metafunctions of language proposed by Halliday (1994). These three functions of language are based on *ideational, textual* and *interpersonal* aspects of texts. Ideational function of language caters propositional conveyance to the audience, whereas textual function is a kind of interaction between the writers and their discourse. The third function deals with interpersonal relationship between the *text-producers* and *text-consumers*.

Sufficient number of studies (Masroor, 2013; Siddique, Mahmood & Iqbal, 2018; Shafique, Anwar & Shahbaz, 2019) on newspaper genre have been conducted in Pakistani context and some studies made on academic discourse produced by Pakistan researchers were oriented towards exploring *texture* and *organization* of text (Shehzad & Abbas, 2015, 2016). Researches examining metadiscourse in academic genres in general and research articles in particular, written by Pakistani researchers, have also been conducted with the focus of *texture* and *organization.* However, the current study specifically investigates the component of *audience-orientedness* in research discourses of Pakistani writers, which has largely not been addressed explicitly, through metadiscursive skills employed by the authors. Moreover, exploring this phenomenon is important to understand the role of writers for *persuading, negotiating with* and *engaging* the readers. In addition, Metadiscourse not only leads to explore the nature of interaction between the writers and the readers but also the discursive synergies between the *text-producers* and their *texts,* which proffers new insights of *text-internal* (Halliday & Matthiessen, 2004, 2013; Martin & Rose, 2008 , Hyland, 2005) discourse acts. Hence, the current study intends to investigate this process of interaction by a focus on finding out interdisciplinary variation of metadiscourse quantitatively in research articles of *Soft Sciences* published in Higher Education Commission's recognized journals of Pakistan. Moreover, the study intends to bring forth *prototypicality* of employment of metadiscourse markers in comparison with the markers identified by Hyland.

Research Questions

1.   What are interdisciplinary variations of interactive and interactional metadiscourse in research articles of Soft Sciences?

2.   What are the possible impacts of metadiscursive variation employed in Pakistani research discourses on persuading, negotiating with and engaging the audience?

Contextualizing the Research

Contextualizing the research with reference to metadiscourse and audience-centeredness, would be in order here. Based on metafunctions of language proposed by Halliday (1994), Hyland (2005: 3) emphasizes three key elements of metadiscourse which are as follow:

> 1. Metadiscourse is non-propositional reality of discourse.
>
> 2. Metadiscourse is text-internal matter and upholds the interaction between the reader and writer only.
>
> 3. Metadiscourse ensures the interaction between the writer and currency of the text which enables the writer in organizing discourse.

These three definitional realties of metadiscourse have been augmented with various manifestations of social practicing such as audience, language teaching, genre and disciplines. Through making such deliberations on metadiscourse, various discursive attitudes and behaviors of persuasion, negotiation, and engagement of the writers with their texts and the readers simultaneously have been explored (see 2.1-2.4 below). Moreover, it is further reinforced by the forthcoming discussion.

Audience-Centeredness and Metadiscourse

Dynamism as an essence of metadiscourse provides sufficient space in the world of knowledge to be occupied by the *text producer* and the *text consumer*. The *text producer*, writer and/or speaker, takes certain position on the content and receptivity of the *text consumer,* reader and/or listener. By doing so, the former, as an active participant, enacts, engages, negotiates, takes positions, and anticipates the response of the audience. On the other side, the reader and/listener as an audience, interprets, perceives, and assumes the enactment of the writer and/or speaker not as passive but equally active participant as the former.

Therefore, audience-centeredness is the key feature of metadiscourse employment in discourses especially in written academic research discourses (Hyland, 2005). Anticipating the expectations, desires, and responses of the *text consumer* leads the *text producer* to shape the text, and metadiscoursal features are important discoursal elements that fill the texts with an appealing form of rhetoric in the whole process of constructing text.

Moreover, considering the audience with reference to a certain context is another indicator of success of the social engagement process through texts by employing metadiscoursal features. It is the context, sometimes, that shapes the thinking patterns of the audience and, consequently, the textual imprints of the writers are dependent on the textual relation between audience and context. Thus, it is metadiscoursal component of the discourse that cements both audience and context with the promise of strong rhetorical relationship. This bond helps the writers and readers negotiate with each other. Therefore, meeting the goal of the communicative event successfully depends on clear realization of the audience and the

context. Furthermore, according to Hyland (2005: 5), metadiscourse is "an important means of facilitating communication, supporting a position, increasing readability and building a relationship with an audience". Thus, significantly, metadiscourse not only makes the text coherent but also turns the text into a social action with involvement of interactional features of language. This interpersonal aspect of discourse depends on, according to Grabe & Kaplan (1996, pp. 207-11), five main traits of an audience—number of readers, familiarity with the writer, relative status and position, shared background and shared knowledge of topical background.

Metadiscourse as Communication Framework

Metadiscourse offers a new insight into social engagement of writers and readers through different events of communication, and this is principally addressed in the current study in Pakistani context, in both written and oral forms. In addition, metadiscourse also suggests a communication-framework pertinent to social interaction (Hyland, 2017b). The dynamic nature of the framework has offered an insight into the perception of concept by exploring different discourses including academic discourse. For example, Abbas, Shehzad and Zahra (2017a), Hyland & Jiang (2016), Akbas (2014), Abdollahzadeh (2011), Abdi (2012), Basturkmen (2015), Ädel (2008a, 2008b, 2006), and Hyland (1999, 2008, 2007, 2005, 2004) have contributed to the existing body of exegeses of metadiscourse in academic milieu by investigating the applicability of this framework. The current study aims at contributing to the existing body of knowledge by exploring interactive and interactional features of metadiscourse in research discourses of the discourse community members of various disciplines like English, Education, History, and Soft Sciences (Becher, 1989) in Pakistan.

Metadiscourse and Academic Tribes

We access metadiscourse by exploring metadiscursive attitudes and behaviors of different academic tribes, their impacts on the process of authoring, writers' themselves, and the imaginary readers. All this happens through one of the most sensitive, sophisticated, and novelty-demanding academic genre of research article that has become one of the most favorite area for discourse analysts in general and metadiscourse analysts in particular (Abbas, Shehzad, Zahra, 2017a; Hyland & Jiang, 2015, 2016; Rezaie & Lashkarian 2015; Mu et al., 2015; Abdi, 2012).

Similarly, another research genre, thesis/dissertation, has also proven useful in situating certain metadiscursive writing practices of different disciplines (Lee & Casal, 2014; Hyland, 2010). In this regard, noticeably, disciplinary variation across cultures within the context of L1 and/or L2 has revealed interesting findings with contrastive attitudes and behaviors (Candarli et al., 2015; Akbas, 2014; Siami & Abdi 2012). Considerable gaps have been witnessed with respect to the writers' interactive practices including discourses of framing, transitioning, and topic shifting in addition to glossing and providing evidences in support of their arguments.

In addition, the intercultural and disciplinary variations causing *dialogic closure* among natives and non-natives with regard to the authors' ownership to their arguments made through self-mentioning, stance and attitude markers have also been revealed (Shehzad & Abbas, 2018; Çandarlı et al., 2015; Kafes, 2015; Wu & Zhu, 2015; Abdi & Ahmadi, 2015; Crismore, & Abdollehzadeh, 2010)**.** This *dialogic closure* is caused due to intercultural-disciplinary differences that demands further research on metadiscursive practices made in different disciplines of non-native cultures. That minimizes this sabotaging factor of discourse for achieving negotiation between the discourse community members belonging to different academic and linguistic soils.

In order to address this issue, the current study aims at exploring interdisciplinary variation of metadiscourse in research discourses of Soft Sciences (Becher, 1989; Harwood, 2005; Hyland, 2005) of Pakistan. The study focuses on revealing quantification and *prototypicality* of interactive and interactional categories of metadiscourse identified by Hyland (2005). This exploration based on finding out interpersonal metadiscourse in 52 research articles of English, Education, and History with the corpus size of 231529 words published in Pakistani research journals would definitely contribute significantly into existing exegeses of metadiscourse produced in non-native context.

Data Collection, Corpus Development, Developing Analyzing Tools, and Procedures

Selection of Disciplines

In order to develop the corpus, research articles (RAs), from soft sciences, published in the Pakistani research journals recognized by a regulatory body of higher education in Pakistan (Higher Education Commission, Pakistan) were selected to ensure the representative spread of the disciplines of humanities and social sciences. Hence, the fields of knowledge (Disciplines) in this study were selected very carefully in order to ensure, if not maximum, at least optimum spread of knowledge domains. So, to cover at optimum level the nature of both pure and applied knowledge, the disciplines of English, Education and History were selected to represent Soft Sciences.

Selecting Research Journals

The journals from all of the fields including Hard Sciences and Soft Sciences have been classified into four categories (W, X, Y & Z categories) by Higher Education Commission, (HEC) Pakistan. This classification is mainly based on quality of the journals which is determined by certain standing operating procedures set by experts at HEC. The two major factors which determine the category of the journals are whether the journal is of impact factor or not, and whether the reviewers are from *advanced countries* or not. The *advanced countries* here include Anglophone and European countries mainly. The

journals having impact factor and reviewers from advanced countries are classified into higher categories of W and X, whereas the journals having no impact factor and reviewers from *advanced countries* are classified into lower categories of Y and Z.

The journals of Hard Sciences have been placed into all four categories but there are more journals in Y and Z categories than the number of journals in W and X. Unfortunately, there is not a single journal of *Arts and Humanities* in W and/or X categories, whereas there are only few journals of *Social Sciences* in X category till to date. Therefore, the journals of Y and Z categories were only selected from the disciplines of English, Education, and History to ensure similar quality level of the publications.

Selecting Research Articles and Developing Corpus

As it can be seen from Table 1 below that 52 research articles (RAs) comprising the corpus of 231529 words of three different disciplines (Education, English, History) from the HEC recognized journals were selected. To have a synchronic view of metadiscourse in Pakistani research discourses, the publication time frame decided of these RAs was 2012 onward.

Disciplines	No. of RAs	Size of Corpus
Education	17	65876
English	18	83508
History	17	82145
Total	**52**	**231529**

Table 1. Total Research Articles of Soft Sciences and Size of Corpus

Data Analysis/Mapping Metadiscourse and Using Corpus Tool for Analysis

Mapping/identification of metadiscourse was one of the sensitive procedures in data analysis process in the present study. Hyland's (2005) three principles for mapping of metadiscourse were considered in the current study. The first principle is about ensuring the non-propositional status of the text. The second rule is to confirm the text-internal nature of the instance and the third principle focuses on the writer's understanding of different discourse acts.

Piloting of mapping was done first and discussed with the two selected raters from the same department of the university where we are working. One of the two raters is PhD qualified having research interests of academic discourse, genre studies, and metadiscourse, and the other rater is PhD scholar (at the

last stage of her research) having research interests in genre studies, academic discourse, and corpus linguistics. The rating of mapped examples of metadiscourse was done by both the raters separately and the rater one found 97 % and the rater two calculated 98 % correct mapping done by us.

Regarding the requirement of corpus techniques needed for analyzing corpus in the current study, an exclusive tool named *MetaPak* for metadiscourse analysis was developed by using algorithms of Python 3.4.2 (Abbas et al. 2017b). *MetaPak* is the first corpus tool developed exclusively for metadiscourse analysis. The metadiscourse markers used for different algorithms were the markers proposed by Hyland (2005).The normalized values per 10000 were obtained through *MetaPak* for quantitative analysis. And qualitative analysis was made only of the most prototypical metadiscourse makers of interactive and interactional categories to find out rhetoric of metadiscourse employed in Pakistani research discourses of research articles of Soft fields.

Theoretical Framework

Hyland's (2005) interpersonal model of metadiscourse (see Figure 1 below) was used as framework for the current study. This model has widely been applied in order to investigate interactive and interactional features of metadiscourse across genres and disciplines. This twofold model of interpersonal metadiscourse grounded with tripartite nature of discourse including text, writer, and reader. The interactive categories including Transitions (T), Frame Markers (FM), Endophoric Markers (EM), Evidentials (EVD), and Code Glosses (CG) show the writers' interaction with their own text/discourse. This interaction between the writers and their discourses are meant to guide the readers through the ongoing text/discourse in order to keep the readers engaged. And interactional categories such as Hedges (HDG), Boosters (BST), Attitude Markers (AM), Self Mention (SM), and Engagement Markers (EGM) are employed to involve the reader for persuasion, negotiation, and engagement. See Figure 1 (below) for brief definitional clarification of these metadiscursive categories. Hyland (2005) identified 300 metadiscursive markers belonging to these ten categories of interactive and interactional metadiscourse which were explored in the current study.

Category	Function	Examples
Interactive	**Help to guide the reader through the text**	**Resources**
Transitions	express relation between main clauses	in addition; but; thus; and

Frame markers	refer to discourse acts, sequences or stages	finally; to conclude; my purpose is
Endophoric markers	refer to information in other parts of the text	noted above; see Fig; in section 2
Evidentials	refer to information from other texts	according to X; Z states
Code glosses	elaborate propositional meanings	namely; e.g; such as; in other words
Interactional	**Involve the reader in the text**	**Resources**
Hedges	withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	emphasize certainty or close dialogue	infact; definitely; it is clear that
Attitude markers	express writer's attitude to proposition	unfortunately; I agree; surprisingly
Self mentions	explicit reference to author(s)	I; we; my; me ; our
Engagement markers	explicitly build relationship with reader	consider; note; you can see that

Figure 1. An Interpersonal Model of Metadiscourse (Hyland, 2005: 49)

Results and Discussion: Interdisciplinary Variation in Metadiscourse

This section delineates findings of the current study as clearer picture of comparison of the writers' awareness about exploiting interactive and

interactional metadiscourse in research articles of various disciplines of Soft Sciences, Education, English and History. First, the comparison is made among the disciplines of Soft Sciences based on interactive and interactional comparison separately (sub-sections 4.1 & 4.2). Then, an overall picture (sub-section 4.3) of comparison of both interactive and interactional metadiscourse employed in Soft Sciences is given. Through these sections (4.1-4.3), we would come to know about certain metadiscursive schema of the writers' interaction with their own text/discourse and with the audience. Moreover, these metadiscursive patterns employed in research discourses of Soft Sciences in Pakistan would enable us to understand nature of interaction made by the writers.

Interactive Metadiscourse Variation in Soft Sciences

Fig 2 presents a complete overview of the writers' cognitive patterns of interaction with their own texts produced in different disciplines of Soft Sciences. By this presentation, an overall picture of employment of interactive metadiscourse on the canvas of research discourses of Soft fields in general and Education, English and History in particular can be viewed clearly. The writers of Education use maximum textual metadiscourse i.e about 620 per 10000 and, on the contrary, research articles (RAs) of History are found using minimum interactive metadiscourse markers i.e 295 almost. This variation shows that the writers of Education RAs involve themselves relatively more in interacting with their own texts. In addition, few more textual manifestations of these findings may also be deliberated. For example, the proposition that the discourse produced by the writers of Education seemingly has more coherence than the other two disciplines including English and History which may be supported by the similar proposition regarding coherence in text as proposed by Eggins (2004). Hence, in other words, similar to developing texture of the text by bringing cohesion and coherence through the use of conjunctions, adverbials, (Halliday & Matheissen, 2004; 2013), and lexical bundles (Biber et al. 2007) it is little doubtful in establishing the proposition that interactive metadiscursive techniques by using Transitions (T), Endophoric Markers (EM), Code Glosses (CG), Framing Markers (FM) and Evidentials (EVD) proposed by Hyland (2005) bring cohesion and coherence in discourse. In summing up the argument, though it is arguable, the findings suggest that the research discourses produced through research articles of Education are grounded comparatively more with text-internal realities (ibid, Martin & Rose, 2008) of constructing research discourses.

Furthermore, discussing the application of individual interactive marker categories, Fig 2 witnesses varied set of textual attitudes of the discourse practitioners of three disciplines of Soft Sciences. Firstly, in addition to the maximum overall use of interactive metadiscourse in the Education RAs, it is also obvious from the findings that discipline of Education has strongest tradition of supporting the arguments with evidences also in research discourses in the context of Pakistan. Here, the marked difference of using EVD in Education RAs , almost 63 per 10000 with English RAs, and 168 per 10000 with History RAs, suggests overt norm of reviewing arguments produced

by other researchers in the same field. However, embedding excessive citations may not necessarily make discourse more persuasive. We suggest, therefore, to address the pragmatic functions of employing Evidentials through different citation patterns needs another detailed study. However, from these findings the writers of Education RAs appear to be more cautious about incorporating more and more citations to support their arguments.
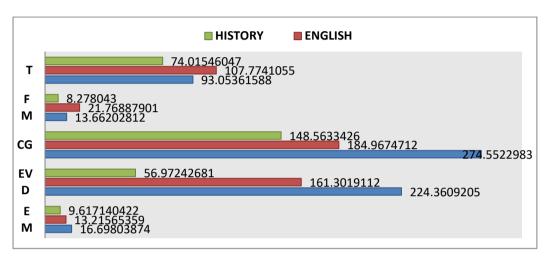

Figure 2. Interactive Metadiscourse Variation in Soft Sciences (Per 10000)

Secondly, the writers of Education feel more in need of elaborating the arguments by exemplification, enhancement, and providing supplementary metadiscursive content through the use of Code Glosses. The findings of glossing in Education RAs show huge difference with the findings of other two disciplines of English and History. Similarly, Education RAs are slightly more incorporated with referencing other parts (EM) of the same text for the ease of understanding of the imagined reader. Whereas, thirdly, the English RAs are rather full of Transition Markers (T) indicating preferred interactive metadiscursive strategy of augmenting addition, comparison, and consequence in arguments regarding outer world experiences. Finally, the writers of English RAs show more concern for signposting discourse through Frame Markers (FM) of sequencing, announcing goals and topic shifting.

Regarding the least use of all the interactive metadiscourse makers in History RAs, we would argue that this is probably due to nature of the content dealt with in the research discourses of History. The discipline seems more grounded with demonstration of world experiences of events; hence, finding less text-internal realities than the text-external experiences is something often expected in this field of knowledge according to our view.

In summing up the interdisciplinary variation of text-internal practice in Soft Sciences, in addition to varied patterns of applying interactive metadiscursive strategies, the discipline of Education seemed to be found comparatively more inclined towards their own discourses by using more CG,

EVD and EM. Whereas, the writers of History RAs, perhaps, owing to the nature of matter dealt within their discipline of knowledge that produces the research discourses, are more concerned with text-external exposure as compared to the writers' metadiscursive behavior of other two disciplines, Education and English.

Interactional Metadiscourse Variation in Soft Sciences

Contrary to employment of interactive metadiscourse in various fields of Soft Sciences, Fig 3, quite interestingly, shows relatively substantial visibility of all the disciplines regarding consideration of the imagined readers by utilizing audience-centered metadiscourse i.e interactional metadiscourse. Figure 3 (below) clearly demonstrates the interactional attitude of the writers while constructing knowledge through research discourses. Just opposite to the dominant occurrence of interactive metadiscourse in the field of Education here, in case of interactional metadiscursive practice, the discipline of English is comparatively more visible. Total interactional markers employed by the writers of English and Education RAs are 197.46 and 178.46 per 10000 respectively. Here again, History RAs lie behind the disciplines of English and Education with respect to interactional metadiscursive strategy employment, indicating less audience-centeredness in the discourses of History RAs.

However, considering the general trends of occurrence of individual interactional categories, we witness from Fig 3, considerably more employment of Hedges (HDG) and Boosters (BST) in English RAs than other disciplines of Soft Sciences. These findings clearly show that the writers of English RAs are more assertive than the writers of Education and History. Similar findings were noticed by Ahmed et al., (2017) while comparing employment of interactional markers by Pakistani and British authors of research articles.

Another interesting trend to be noticed regarding persuasion and negotiation through this metadiscursive behavior is the effort of maintaining balance between the use of HDG and BST by the writers in the fields of English and Education both. Bilal and Shehzad (2019) also observed similar balance in research articles of Business and Managing Sciences written by Pakistani writers. There might be some implications of these metadiscursive behaviors; however, this seems to us an appropriate metadiscursive practice owing to following two reasons. First, though the ownership of the argument by using more Boosters becomes vivid, having more assertive attitude in research discourses may undermine the readers' intellectual enterprise. If the reader is of different view from that of the writer, the reader, most probably, would consider this ownership as a discourse act of imposition which, consequently, may cause the failure of achieving communicative goal of the writers. Second, using more Hedges can result into shaping the image of the writer as extra careful and apprehensive about the stance taken which, resultantly, might prove to be unsuccessful in persuading the reader community.

In other words, if the *text producer* is less confident about his/her *product,* the *text consumer* would definitely hesitate in accepting the utility of

that product. In summing up this whole argument, neutralizing the impact of strong assertion with less strong positioning in a balanced manner, in our opinion, may bring the reader on the same page for negotiating the proposition.

Nevertheless, the writers of English and Education RAs appear to be slightly more assertive instead of showing solidarity towards the readers. Conversely, to the above-mentioned findings, the writers of History RAs, interestingly, proved themselves more alert to the anticipated threat of disapproval of argument by the imagined reader. Perhaps, this is the reason that they do remarkably more hedging than displaying themselves as assertive intellectuals, as the findings indicate from Figure 3 (below). Similarly, the writers of Education also appear likely to anticipate that threat of disapproval and employ slightly more Hedges than Boosters in the process of argumentation through research discourse.
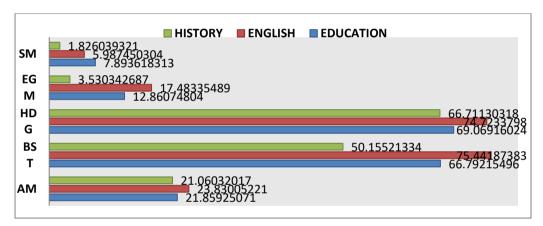

Figure 3. Interactional Metadiscourse Variation in Soft Sciences (Per 10000)

Moreover, regarding engaging the reader explicitly, Fig 3 demonstrates that the writers of English invite the readers for certain discursive acts by using comparatively more Engagement Markers (EGM), 17.48, than the writers of Education and History. The readers are engaged preferably through the use of inclusive person pronouns for example *we, us*, and *you*.

From the sufficient use of inclusive personal pronouns in both English and Education RAs, it can be inferred that the writers of these fields appear to be relatively more dialogic and negotiating and are able to anticipate the readers' expectations. Contrary to the use of inclusive pronouns as engagement metadiscursive strategy, the writers of Education RAs use, as a strategy of Self Mention (SM), more exclusive pronouns than the writers of English and History as can be seen in Fig 3. This finding indicates that the discipline of Education approves the tradition, to some extent, of self-display while presenting propositions to the readers. However, overall picture of self-

mentioning in all of these disciplines clearly reveals the metadiscursive behavior of self-effacement verifying the findings of Abbas et al. (2017a).

Finally, it is obvious from Fig 3 that the writers of Education and History have similar attitude towards expressing their personal feelings towards the nature of propositions and argumentations. However, English RAs show slightly more Attitude Markers (AM) than the other two disciplines. Due to less difference of values of AM among the three disciplines of Soft Sciences, it can also be concluded that the writers of these disciplines possess almost similar metadiscursive cognitive behavior towards the nature of propositions and argumentations.

Interactive Versus Interactional Metadiscourse Variation in Soft Sciences

While providing a comparative overview of employment of interactive versus interactional metadiscourse in the disciplines of Soft Sciences, it can be viewed form Table 2 that the research discourses of Soft Sciences produced by Pakistani authors published in local journals of the country are remarkably grounded with *text-internal* interaction, 1402.81 per 10000 times. Whereas, the interactional markers occur only 519.28 times per 10000 in the fields of Education, English, and History. This huge difference of 889.58 per 10000 clearly presents the set norms of metadiscursive practice in the field of Soft Sciences in Pakistan. While comparing with some of the other studies such as of Hyland and Jiang (2016), it is noticeable to find that the amount of both the interactive and interactional markers employed in Pakistani research discourses seems higher that might be considered as excessive use of metadiscourse. To experience more visualizing reality, we can consider Figure 4 for viewing the micro picture of category wise comparison.

So what does it mean that this is in Pakistan? Is it different from other countries? If so, why?

Table 2. Summary of Interactive and Interactional Metadiscourse in Soft Sciences (Per 10000)

	EM	EVD	CG	FM
EDUCATION	16.69803874	224.3609205	274.5522983	13.66203
ENGLISH	13.21565359	161.3019112	184.9674712	21.76888
HISTORY	9.617140422	56.97242681	148.5633426	8.278043
TOTAL	39.53083275	442.6352585	608.0831121	43.70895
	AM	BST	HDG	EGM
EDUCATION	21.85925	66.79215	69.06916	12.86075

ENGLISH	23.83005	75.44187	74.72338	17.48335
HISTORY	21.06032	50.15521	66.7113	3.530343
TOTAL	66.74962	192.3892	210.5038	33.87445

As Fig 4 and Table 2 witness that the most dominant interactive metadiscursive behavior is of glossing with the total value of 608.08 per 10000, and hedging is the most recurring interactional metadiscursive practice with the value of 210.50 per 10000 in the research discourses of Education, English and History. On the other hand, the lowest interactive and interactional markers that occur in these fields are Endophoric Markers and Self Mention with per 10000 values of 39.53 and 15.70 respectively. These findings mentioned above in the same paragraph indicate that the writers of Soft Sciences' RAs guide their readers throughout the discourse more with the help of providing supplementary content related to main propositional matter. And, at the same time, hedging is the more dominant engaging and negotiating strategy adopted by the writers in these fields.

Conversely, we find also from the same findings mentioned above that the trend of referring to other parts of the same text (EM) is considerably low, 39.53 per 10000, that reveals one of the rhetorical hindrances causing the text *reader responsible* in the field of Soft Sciences. Another least preferred strategy of the writers of Soft Sciences' RAs is self-effacement with the value of 15.70 per 10000 only. This finding is in conformity with the findings of Abbas et al. (2017a) in which they have found that the researchers in Pakistani context consider mentioning self as breach of the norms of objectivity of research. The researchers (ibid) have found that these are *researchers' acts* (Hyland, 2005, Bunton, 1999) only for which the Pakistani writers prefer using first person pronouns.
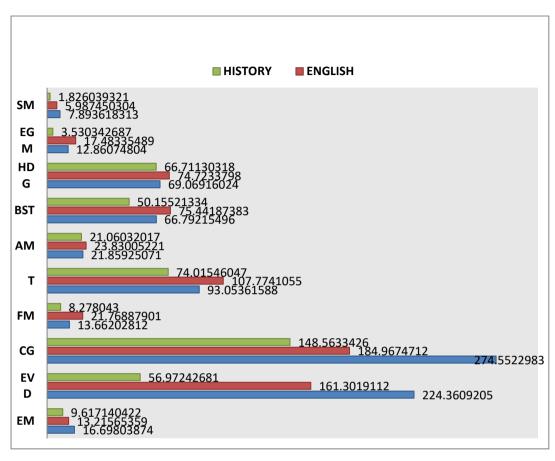
Figure 4. Interactive Versus Interactional Metadiscourse in Soft Sciences (Per 10000)

Moreover, Fig 4 shows that the most visible metadiscursive textual behaviors are of glossing, quoting evidences, and transitioning discourse by sequencing and/or contrasting propositions. Similarly, asserting and keeping the safe escape are the most dominant reader-oriented schematic attitudes of the writers of Education, English, and History in order to achieve communicative goal of persuasion of, negotiation and engagement with the readers.

In the end, among the least occurring interpersonal metadiscursive categories, the show of attitude including personal interest, feelings, surprise, etc., by the use of Attitude Markers (AM) towards propositions, is relatively higher than EM, FM, EGM and SM. So, out of ten interpersonal categories of metadiscourse, AM stands at sixth position in terms of occurrence per 10000 in Pakistani research discourses of Soft Sciences in general, and Education, English, and History in particular. AM unveils the writers' sentimental attitude towards the propositions embedded in their discourse and the arguments made by other researchers. Simultaneously, by employing these markers of attitudes, the writers imagine their readers to believe in, let us say, the words

like *importance, significance,* and *unfortunate,* etc., regarding the stance taken in the argument.

Conclusion

In summing up, the overall interactive and interactional metadiscursive behaviors of the writers of Soft Sciences, the findings reveal considerable interdisciplinary variation of these two major classes of metadiscourse in research discourses of English, Education and History. The findings show that the research discourses of these disciplines are remarkably more replete with the writers' interaction with their own texts than interacting with the readers. The total normalized values of all three research discourses are 1402.81 and 889.58 per 10000 respectively.

For example, Code glossing and Evidentials are most common interactive strategies of the writers of Pakistan. Code Glosses (CG), similar to the current study, Khedri et al. (2013) and Abdi (2012), found glossing as the most preferred textual category of metadiscourse in research articles of both the fields of Hard Sciences and Soft Sciences in non-native context. Whereas, Hyland & Tse (2004) observed CG as third most occurring interactive and fifth most occurring metadiscourse in research discourses across the spread of disciplines. While comparing the findings regarding Evidentials with the findings reported by Hyland (2005:116), EVD employed in Pakistani research discourses occurs in slightly appropriate metadiscursive patterns than in Chinese discourses. However, in some instances, similar to Chinese content schema, Evidentiality was used in Pakistani research discourses merely for transmission of information, whereas, like English writing of the same discourses of research, Pakistani authors too consider citations important in developing argument to establish positioning. Therefore, we suggest a comprehensive investigation to be made on this important phenomenon of citation patterns employed by the writers of Pakistani research discourses.

Moreover, there are many other studies that have been conducted on investigating disciplinary variation of metadiscourse in research discourses constructed in research articles and theses/dissertations (Abbas et al. 2017; Hyland, 2016; Hardjanto, 2016; Mu et al. 2015; Abdi & Ahmadi, 2015; Hu & Cao, 2015; Cao & Hu 2014; Rezaie & Lashkarian, 2015; Hyland, 2005; Hyland & Tse, 2004). Just to compare with a few of these, contrary to the recent study conducted by Hyland (2016), the current study found more visibility of the authors of research articles with respect to taking stance through Boosters and Hedges, and indicating more vocalist schema of non-native writers as revealed by Hinkel (2009) too.

Interactive Metadiscourse	The Most Prototypical Markers Employed
Transitions	*also, moreover, further, and, but, however, rather, though, since therefore because, hence, so, therefore.*
Endophoric Markers	*Table, Figure, above, below,*
Evidentials	in-text citations, *according to, ...suggest(ed)*
Code Glosses	*(),or, such as, for example, that is, i.e,*
Frame Markers	*firstly, secondly, finally, so,*
Interactional Metadiscourse	The Most Prototypical Markers Employed
Attitude Markers	*Important, essential(ly), even, appropriate(ly), expected(ly), interesting(ly)*
Boosters	*Find, finds, found, show(s, ed) , should, must, clear(ly),known,*
Hedges	*could, may, indicate(s/ed), suggest, almost, about, generally, mostly, often*
Self Mention	*We, our, The researcher (s),*
Engagement Markers	*We, our, us, you , See fig...* etc

Figure 5. Prototypicality of Metadiscourse in Research Discourses of Soft Sciences in Pakistan

Finally, the current study revealed disciplinary *situatedness* and metadiscursive *prototypicality* in research discourses of Soft fields in the Pakistani context. Figure 5 above lists the most prototypical interactive and interactional markers of metadiscourse which are considerably less than the total *prototypical* markers identified by Hyland (2005). Employing such a limited range of metadiscursive expressions which are *prototypical* to the local context might be considered *less prototypical* or *atypical* by the expert readers of the world. This difference, consequently, may be considered as one of the important factors causing *dialogic closure* in order to achieve persuasion, negotiation, and engagement of the international gate keepers, reviewers and readers.

Note: This paper has been extracted from Akhtar Abbas's PhD thesis entitled "An Exploration of Interactive and Interactional Relationship (Metadiscourse) in Research Search Discourses of Pakistan through Corpus-Based Techniques."

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