

Metadiscourse Markers in the Abstract Sections of Persian and English Law Articles

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Abstract

Abstracts are well-accepted as the clarity and fidelity of language in any article assists the readership to get the central points of the research in a brief but effective manner. Meanwhile, as a significant feature of any piece of discourse, meta-discourse markers can effectively render article abstract texts more reader-friendly and coherent. The present study aims at investigating the extent to which English and Persian abstract sections of Law articles are cross-culturally similar or different in applying metadiscourse markers. To this end, 80 articles, 40 in each language, were carefully selected from Law articles published from 2010 to 2015 in online archives of leading journals. The selected corpora were analyzed through the models suggested by Hyland and Tse (2004) and Hyland (2005) to find out the type, number, and frequency of the markers, respectively. The findings of the study revealed that English authors enlisted a larger number of metadiscourse markers than their Persian counterparts; Persian authors, on the other hand, employed larger number of transitions among others. Such observed differences may stem from the culture-specific application and organization of discourse followed by diverse nationalities and norms.

Keywords: Interactive markers, Interactional markers, Law research articles, Metadiscourse markers

Introduction

Writing includes two levels the first of which involves propositional content constituting the subject of the text; the second level is the well-known term, metadiscourse, that assists readers read, organize, understand, and interpret the writing (Vande Kopple, 1985). In fact, metadiscourse is referred to as self-reflective linguistic expressions which include text, imagined readers, and the writer (Hyland, 2004).

In addition, metadiscourse markers are linguistic elements which indicate that the writer or reader are present in the text by either referring to the organization of the text or remarking on the text in other ways (Hyland, 2005). Metadiscourse emphasizes the speakers' or writers' discussions in relation to decisions about the kind of effects they are having on their listeners or readers. There is a key issue in the meta-discourse literature concerning whether it is a functional, syntactic, or both approaches at the same time. However, several authors have taken a functional approach and looked for classifying meta-discourse markers according to their functions in a text (Hyland, 2005). The term "functional" in meta-discourse studies refers to how language is used to achieve communicative purposes for users. The focus is on the meanings in contexts, how language works, not what a dictionary says about it. So, when any item is regarded as a candidate for inclusion as a meta-discourse, the question is "what is this item doing here at this point in the text?" but not "what is the function of this item?" (Hyland, 2005)

The study of learners' culture has long been the subject of various investigations (i.e. Fox, 1994; Ramanathan & Kaplan, 1996a, 1996b; Atkinson, 1997; Carson, 1998; & Nelson, 1998) the outcomes of which have enabled the researchers to predict particular behaviors and, consequently, facilitate the teaching/learning process. Therefore, investigating metadiscourse markers can be an effective approach for finding and emphasizing the differences between genres and cultures. As Kaplan (1996) maintained, contrastive rhetoric is utilized as an important yard scale for considering the differences in written texts as well as various discourse; easing the clear comparison between the cultural and linguistic norms of different ESL/EFL writers with their native counterparts. Hence, the rhetorical use of metadiscourse markers in written texts might be culture dependent varying from one culture or language to another (Attaran, 2014). Finally, the idea which MDMs are an indispensable part of texts has been supported by Hyland & Tse (2004) as:

Meta-discourse is thus an aspect of language which provides a link between texts and disciplinary culture, helping to define the rhetorical context by revealing some of the expectations and understandings of the audience for whom a text was written. (p. 175)

Several studies have examined metadiscourse markers in different sections of research articles, e.g. abstract (Gholami and Ilghami, 2016; Gillaerts and Van de Velde, 2010; Jalilifar & Alipour, 2007; Khedri, Chan, and Ebrahimi, 2013; Marandi, 2003; Mocanu, 2015; Ozdemir and Longo, 2014; Rashidi and Alihosseini, 2012), introductions (Farzannia and Farnia, 2016; Kawase, 2015; Salar and Ghonsooli, 2016), results and discussions (Khedri, Ebrahimi and Chan, 2013; Kuhl and Mousavi, 2015), conclusion sections (Estaji and Vafaeimehr, 2015; Mirshamas and Alami, 2013), or across all sections of research articles (Abdi, 2012, Mur-Dueñas, 2011).

Although several studies have been conducted to compare metadiscourse markers in research articles, few studies have been conducted to compare these markers in abstract sections of law articles. Accordingly, the present study aimed at filling this gap by researching the use of metadiscourse markers in different law articles with the ultimate goal of contributing valuable findings to the available body of findings. The outcomes would help the researchers in the field of law, ESL/EFL teaching and learning, sociocultural pragmatic and ESP research to expand their respective areas of research and also help learners learn more effectively. .

Review of Literature

The Concept of Metadiscourse

The term metadiscourse was invented by Harris (1959) to propose how to perceive language in use and how the writers and speakers try to guide a reader to understand a text. Since then it has been used by other authors such as Williams (1981), Vande Kopple (1985), and Crismore (1989). Later, Vande Kopple (1985) defined meta-discourse as "discourse about discourse or communication about communication which refers to the writer's or the speaker's linguistic manifestation in his/her text for interacting with his/her readers or receivers". According to William (1981), metadiscourse is discourse about discourse, proposed to direct rather than inform readers. Crismore (1983) refers to metadiscourse as the author's intrusion into his/her discourse, either explicitly or non-explicitly, to direct rather than inform, indicating to the readers how to realize what is said and is meant in the main discourse and how to "take" the authors. Hyland (2005) and Dafouz-Milne (2008) stated that meta-discourse is a term which is based on a view of writing or speaking as a social engagement.

Hyland (2005) suggested a model of classifying metadiscourse markers (MDMs), namely, interactive and interactional. The interactive MDMs are related to the ways of organizing

discourse to predate reader's knowledge and reveal the writer's assessment of what needs to be made explicit to limit and guide what may be recovered from the text. Its categories are: transition markers, sequencers, code glosses, frame markers, evidential and endophoric markers. The interactional MDMs entail the writer's attempts at controlling the degree of personality in a text, creating an appropriate relationship to his or her information, arguments, and audience, marking the level of intimacy, the expression of attitude, the communication of commitments, and the extent of reader involvement. The interactional category includes the strategies; hedges, boosters, attitude markers, self-mentions, and engagement markers. Another model introduced by Hyland and Tse (2004) is the interactive classification that consists of transitions, frame markers, endophoric markers, evidential, and code glosses.

Metadiscourse markers have various meanings. Indeed, in the related literature several classificatory schemes have been proposed for categorizing these markers. Using Lautamatti's (1978) classification and Williams' (1981) work, Vande Kopple (1985) presented two major kinds of metadiscourse markers: textual and interpersonal. In effect, Vande Kopple's (1985) categories involve text connectives, code glosses, illocution markers, validity markers, narrators, attitude markers, and commentaries. This classification was found to be ambiguous in that it was very problematic for the researchers to put into practice (Hyland, 2005).

In addition, Crismore, Markkanen, and Steffensen (1993) attempted to improve Vande Kopple's (1985) metadiscourse classification. Despite some modifications that Crismore and his associates (1993) had done in the previous classification system, some problems of ambiguity were still present.

To alleviate the aforementioned shortcomings, Hyland and Tse (2004) offered a new model for classification of metadiscourse markers which informed the present study. The model assumes two major classifications for metadiscourse: interactive and interactional. The interactive one contains the strategies of transitions, frame markers, endophoric markers, evidentials, and code glosses and the interactional one features hedges, boosters, attitude markers, self-mentions and engagement markers strategies. Hyland (2005) believed that the interactive part concerns the writer's consciousness of a participating audience and the ways he or she looks for accommodating its possible interests, knowledge, rhetorical expectations, and processing abilities. The interactional part includes the ways writers do interaction by interfering and commenting on their message. This proposed model is specially named as "a model of metadiscourse in academic texts" (Zarei&Mansoori, 2011).

Metadiscourse markers play a significant role in persuasive writing and act as persuasive tools writers employ in their texts to influence their readership. Hyland (2005) mentions that metadiscourse markers might help the art of persuasion by virtue of the fact that they encourage logical appeal once they directly associate ideas with arguments, and depict approval if they are consistent with the reader's way of thinking.

In the study reported in this article, abstract sections of journal articles were analyzed since this section is an important first part presenting the gist of what is going to follow. It has been a long time since research article abstracts became a part of a standard rule in admitting and publishing articles among the discourse community of scholars (Ghafar Samar and Yazdanmehr, 2013). As Miller (1984) showed in her article on Genre as social action, genres arise from the requirements of regular rhetorical situations, asking for sufficient response. As such, a research article abstract can be viewed as a social response. If this point of view is taken, however, the generic quality of an academic abstract is no longer defined in terms of specific lexis and syntax. By contrast, it can be regarded as a case of interaction between individuals, performing in a social, institutional context. Abstract sections are to help readers learn about the most important

aspects of a study persuading him/her about the importance it bears. Thus, learning how to prepare an abstract is an important stepstone for novice writers to enter the discourse community of their disciplines (Garcia-Calvo, 2002).

Previous Studies

Metadiscourse has been broadly investigated from different perspectives and with various purposes. In an early study, Crismore et al. (1993) analyzed metadiscourse in persuasive composition written by American and Finnish university students to see the effect of culture and gender on the use of metadiscourse strategies. They used persuasive texts because these tend to focus more on elements of metadiscourse than other kinds of texts. These researchers believed that metadiscourse let the author, among other things, express his/her attitude towards text content and his/her probable reader; that is, the writer employs metadiscourse to make assessments about what he/she writes and to persuade the reader about the significance of the position presumed in the abstract and the study as a whole. They analyzed textual and interpersonal metadiscourse. The result of their study showed that both American and Finnish students utilize all the categories of metadiscourse suggested, and that there are cultural differences with regard to the quantity of types of discourse markers used. This study suggested that as the abstract section has been defined as a persuasive text, it would be effective to study the metadiscourse used by the authors. In 2002, García-Calvo offered that there might be cultural and disciplinary differences in the styles of persuasion used in abstracts. However, these differences have not been completely investigated for this kind of texts. In another study in the same year, Garcia-Calvo (2002) analyzed 400 abstracts of Linguistics and Bioscience, randomly selected from the texts in twelve Books of Abstracts of scientific conferences and congresses written by Spanish and English authors based on Crismore et al. (1993) classification. The categories of interpersonal metadiscourse were: (a) hedges, (b) certainty markers, (c) attributors, (d) attitudinal markers, and (e) commentaries. The corpus was analyzed by examining the writers' use of interpersonal metadiscourse. The results showed that all the writers used at least one kind of interpersonal metadiscourse. It was also found that the English writers of the texts in each area used more metadiscourse markers than the Spanish ones.

Elsewhere, Gillaerts and Van de Velde (2010) investigated interactional metadiscourse in research article abstracts in the *Journal of Pragmatics* during the past 30 years. Increasing and lessening use of some metadiscursive models was found throughout these years among these abstracts which were published in the field of applied linguistics. In a similar study, Hu and Cao (2011) investigated the use of hedges and boosters in academic article abstracts. The corpus was 649 abstracts collected from 8 journals in applied linguistics written Chinese and English language. The purpose was to examine the use of hedging and boosting strategies in the two corpora. The results showed that abstracts published in English corpus used significantly more hedges than those published in Chinese.

Akbas (2012) analyzed metadiscourse markers in the abstract sections of master's theses across three groups: native speakers of Turkish, native speakers of English, and Turkish speakers of English in social sciences. Akbas (2012) attempted to find out how the writers of these theses employ metadiscourse markers and whether student writers from the same cultural background have a tendency to use similar rhetorical features to those of their mother tongue or match themselves with the language in which they are writing. Based on the metadiscourse classification of Hyland and Tse (2004), Akbas (2012) analyzed ninety randomly selected master's theses in the social sciences (30 per group). Although, the findings of Akbas's study indicated significant differences between the three groups of theses regarding the number of

occurrences of interactional metadiscourse markers, no significant difference was found in the case of interactive metadiscourse.

In a study conducted in an Iranian context, Ghafar Samar and Yazdanmehr (2013) analyzed interpersonal metadiscursive resources in research article (RA) abstracts written by Iranian applied linguists in English and Persian journals. They compared and contrasted 100 abstracts (50 Persian abstracts and 50 English abstracts) randomly selected from 4 academic/scientific journals of Applied Linguistics in Iran. Hyland's (2005) taxonomy was employed for analyzing two main categories of interpersonal metadiscourse: interactional and interactive, each having their sub-categories. The former consists of hedges, boosters, attitude markers, engagement markers and self-mentions. The latter includes transitions, frame markers, endophorics markers, evidentials, and code glosses. The results revealed that the Persian abstracts were in all cases longer than their English versions, but in both the interactive metadiscursive resources were more common than the interactional ones. Ozdemir & Longo (2013), adopting Hyland's (2005) model, compared Turkish and American interactive discourse in abstract sections of research articles. These researchers concluded that whereas American students tended to use endophorics (27.7), evidential (67.3), and code glosses (102.9) more in their Abstract sections, the frequency of evidential (1.4), endophorics (8.5), and code glosses (11.6) was very low among Turkish post-graduate abstracts. Besides, they reported that the mostly frequent used interactive metadiscourse markers among both groups were transitions (323.5 in American and 542.2 in Turkish students' abstracts), as well as frame markers (134.5 in American and 182.2 in Turkish students' abstracts) which differed cross-culturally.

SoodmandAfshar and Bagherieh (2014) compared the frequency of *hedges* in 40 MA/MS abstracts of Persian literature and civil engineering theses written both in English and Persian. They used the taxonomy of hedges proposed by Salager-Meyer (1994). They found that, first, there were no significant differences in the frequency of *hedges* in abstracts written in both English and Persian in both disciplines and second, writer's discipline did not have any effect on the frequency of *hedges*. Third, Iranian graduate students used *hedges* less than English speaking students. In another study, Mocanu (2015) investigated metadiscourse markers in the abstract sections of accounting research articles published in the Journal of Accounting and Management Information Systems (JAMIS) spanning eight years, 2006-2014. The total wording of the corpus was about 25,570 in 130 abstracts under investigation. The correlation between the number of interactional markers and the publication maturity, the increase in the metadiscourse markers over time, and the most frequent elements of interactional metadiscourse were considered in the study.

From what was alluded to above, it can be concluded that although investigating metadiscourse markers is not a new subject in the field of applied linguistics, it has been studied for various subjects and by different scholars over time as it serves different purposes in different fields of study.

Objective of the study

The main objective of the present study was to compare the interactional and interactive metadiscourse markers of abstract sections of law articles written by English and Persian native speakers. Hence, the following research questions guided the study:

Q1. Are there any significant differences between native English and Persian non-native speakers of English in the use of interactive metadiscourse markers in abstract sections of Law research articles?

Q2. Are there any significant differences between native English and Persian non-native speakers of English in the use of interactional metadiscourse markers in abstract sections of Law research articles?

Method

Corpus of the study

The corpora of the present study featured a total of 80 Abstract sections of articles in the field of law written by American and Iranian native speakers. The reason behind the selection of the mentioned texts was the paucity of research on metadiscourse markers in the abstract sections in this field of soft sciences. The articles were carefully selected to help overcome the problem of mismatch between the two languages, each containing about 250-450 words. To ensure the comparability of the two sets of data and because of the brief nature of abstracts, the whole sections, amounting to the total number of 1566 words, were analyzed. Accordingly, in order to obtain the most valuable and reliable results, prestigious journals have been used during the corpora selection. The three ISI journals with English native speaker authors were Journal of Criminal Justice, American Criminal Courts, and Criminology; in addition, the other three ISI journals with Iranian (Persian) native speakers authors chosen for the study were International Journal of Law, Crime and Justice, Computer Law & Security Review, and Journal of Law and Society. The number of articles selected from the first three journals were 22, 8, and 10; also, the number of Iranian articles were 12, 18, and 10, respectively.

In fact, the rigorous choice of different published articles from various online journals helped the researchers substantially enhance the external validity of the findings. Furthermore, an attempt was made to select the articles whose authors were American native speakers of English and native speakers of Persian based on the author's affiliation and name. The articles chosen had a date limitation between 2010-2015 from the online archive of leading journals, with the presupposition that all authors have followed the most recent norms and format of academic writing.

Procedures

As was pointed out earlier, there was a need to control such some variables as native language, affiliation, the year of publication, topic, and the length of Abstracts in each article. To identify the metadiscourse markers each Abstract section was read word by word through a manual frequency count to keep an orderly numeral record of metadiscourse markers (MDMs). Inevitably, the size of each Abstract section differs in both groups. The careful selection of articles was very crucial in order to guarantee a sound comparison; therefore, all the Abstracts chosen contained similar number of words.

The study aimed at meticulously scrutinizing MDMs through the comprehensible model developed by Hyland and Tse (2004) and Hyland (2005) (see Table 1 & 2). Moreover, to reach the most reliable results and prevent probable mistakes, the Abstracts chosen as well as the categories of MDMs were checked by three university professors. To ensure the target categories and articles best suited the purpose of the study, the inter-rater reliability was calculated (0.87) which was quite noticeable and satisfactory. In order to measure the frequency of occurrence of the MDMs types, a quantitative test (Chi-square test) was run with the p-value of set at <.05 indicative of the differences between the two sets of data. It needs to be pointed out that as the variance was non-homogeneous and the data was not normally distributed, using Chi-square as a non-parametric test was assumed to make for a more accurate analysis of the differences observed.

Five classifications of metadiscourse markers, based on Hyland and Tse (2004), which has the function of assisting reader through the text, are set out in the following tables. The MDM model of Hyland (2005) displayed in Table 2 involves five different interactional resources with the same purpose as Table 1.

Table 1. *Interactional category resources*

Category	Function	Example
Interactive resources	Help to guide the reader through the text	
Transitions	express relations between main clauses	in addition; but; thus; and
Frame markers	discourse acts, sequences or stages	finally; to conclude; my purpose is
Endophorics	information in other parts of the text	noted above; see figure; in section 2
Evidentials	information from other texts	according to X; Z states
Code glosses	propositional meaning	namely; e.g.; such as; in other words

Hyland (2004) explains each category/resource as follows:

Interactive resources are related to information management by the writer on how to interpret and organize them in a way that is proper for the readers' knowledge. "Interactional resources focus on the participants of the interaction and seek to display the writer's persona and a tenor consistent with the norms of the disciplinary community" (Hyland, 2004, p. 139).

Table 2. *Model of MDMs adopted from Hyland (2005)*

Interactional	Involve the reader in the text	Examples
Hedges	withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	emphasize certainty and close dialogue	in fact; definitely; it is clear that
Attitude markers	expresses writers' 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

Transition including various devices such as conjunctions is applied to remark addition, contrast, and consequence on the contrary to external world. Then, *frame markers* are defined as elements of text structure such as indicating topic shift, labeling text stages, etc., and references to text boundaries. *Endorophoric markers* recover the writer's intentions by referring to other parts of the text by making other materials noticeable. Also, *evidentials* show the textual

information source that is currently outside the targeted text. Finally, *Code glosses* indicate the reword of ideational information.

Metadiscourse, Hyland argues, is the effort of the writer for controlling the level of personality in the text and build up a proper relationship to the audience, data, arguments, the expression of attitudes, the degree of intimacy, the degree of reader involvement, and the communication commitments (p. 139).

There are five classifications of markers including hedges, attitude markers, self-mentions, and engagement markers, each defined as follows. First, *Hedges* represent the reluctance of the writer to mark propositional information in order. Second, *boosters* indicate emphasis and certainty of propositions. Also, *attitude markers* show the writer's conveyance of the surprise obligation, agreement, propositional information, importance, etc. *Self-mentions*, on the other hand, express the presence of the author through the use of first person pronoun and possessives. And lastly, *engagement markers* which address the reader explicitly, include them as participants, or attract their attention through the use of imperatives, personal pronouns, question forms, etc.

In brief, the present study aimed at examining MDMs in two different sets of data in the field of law. In the first step, the MDMs were marked and classified according to Hyland and Tse (2004) and Hyland (2005). The next step was the identification of a proper non-parametric analysis of the data to determine the frequency of occurrence in the texts to find the differences more evidently.

Results

To realize the differences between the targeted corpora in English and Persian carefully, MDMs of each category were counted separately to calculate the exact frequency of their occurrences. Table 3 indicates the number and frequency of occurrence of MDMs in English and Persian Abstracts according to Hyland and Tse's (2004) categorization.

Table 3. Frequency of MDMs based on Hyland and Tse (2004)

Categories	Frequency of Persian MDMs	Percentage of Persian MDMs	Relative Frequency Persian MDMs	Frequency of English MDMs	Percentage of English MDMs	Relative Frequency of English MDMs
Transitions	733	92.5	46.8	658	86.12	42.0
Frame markers	9	1.13	0.57	21	2.74	1.34
Endophorics	0	0	0	0	0	0
Evidentials	16	2.02	1	45	5.89	2.8
Code glosses	34	4.29	2.1	40	5.23	2.5
Total	792	100	50.5	764	100	48.64

Comparing the target texts with respect to their language (Persian and English) demonstrated similarities and differences between the two groups. As can be seen in Table 3, transitions are the most frequently used markers in Persian (92.5%) and English (86%). In Persian abstracts after transitions, code glosses (4.2%), evidentials (2%), and frame markers

(1.1%) bear larger frequencies, respectively. On the other hand, endophorics were absent in the corpus of the study which may be due to the way information is presented in abstracts.

The findings show that unlike Persian corpus, evidentials rank second (5.8%) followed by code glosses (5.2%) and frame markers (2.7%) the third and fourth in English corpus, respectively. Similar to Persian results, the frequency of occurrences evidentially demonstrated that endophorics do not appear or scarcely appear in the English abstract sections. In total, Persian MDMs outnumber English MDMs, although the difference is not very significant.

Table 4 demonstrates the number and frequency of MDMs in English and Persian corpus based on Hyland's (2005) classification of markers.

Table 4. *Frequency of MDMs based on Hyland (2005)*

Categories	Frequency of Persian MDMs	Percentage of Persian MDMs	Relative Frequency Persian MDMs	Frequency of English MDMs	Percentage of English MDMs	Relative Frequency of English MDMs
Hedges	56	42.1	3.5	97	34.15	6.1
Boosters	13	9.77	0.08	23	8.09	1.46
Attitude markers	9	6.76	0.57	29	10.21	1.85
Self-mentions	36	27.06	2.29	114	40.14	7.2
Engagement markers	19	14.28	1.2	21	7.39	1.3
Total	133	100	7.64	284	100	17.91

As Table 4 depicts, the higher total percentage of English MDMs clearly shows this model of categorization makes a clear distinction in terms of the use of MDMs in the two sets of data. In English corpus, self-mentions are of the highest frequency of 40.14%, hedges 34.15%, attitude markers 10.21%, boosters 8.09 %, and engagement markers are 7.39 %. Results also show that in Persian corpus the highest percentage belongs to hedges 3.5%, where self-mentions rank second 27.06%, engagement markers 14.28%, attitude markers 6.76%, and finally boosters with the frequency of 9.77% are the least frequently used markers of all.

Table 5 depicts the Chi-square tests in both English and Persian corpora based on the first categorization of MDMS (Hyland and Tse, 2004).

Table 5. *Chi-square Analysis of MDMs based on Hyland and Tse (2004)*

Categories	Chi-Square	Asymp. Sig.
Transitions	4.044	.044*
Frame markers	4.80	.028*
Endophorics	-	-
Evidentials	13.78	.000*
Code glosses	.486	.485
Total	.5	.478

Based on the results of Chi-square test, it can be inferred that there was a noticeable difference between the groups in using evidentials ($p < 0.05$). According to the statistics, English researchers tend to use more evidentials to apply more support and justification in their writing (Noorian & Biria, 2010). Also, there was a significant difference in the use of transitions ($p < 0.05$) which demonstrates that Persian researchers were more in favor of applying conjunctions than their corresponding English counterparts. Frame markers were also found to be different in both groups, where English writers tend to use more of references, topic shifts, and labels. By contrast, evidentials were the least frequent of all categories since they were absent in the corpora showing that in the abstract section of articles there is no need felt for referring back to the other parts of the article. The difference in the use of code glosses was not statistically significant, either.

Table 6 illustrates the findings based on the second category (i.e. Hyland, 2004) and a Chi-square test on both English and Persian corpora.

Table 6. *Chi-square Analysis of MDMs based on Hyland (2005)*

Categories	Chi-Square	Asymp. Sig.
Hedges	10.98	.001*
Boosters	2.77	.096
Attitude markers	10.59	.001*
Self-mentions	40.56	.000*
Engagement markers	.1	.752
Total	54.67	.000*

As can be seen in Table 6, the total number of markers was significantly different indicating that English researchers evidently used a significantly higher number of markers. Based on the Chi-square analysis, it can be inferred that English researchers showed more tendency toward the use self-mentions, attitude markers, and hedges ($p < 0.05$). On the contrary, Persian researchers did not prefer to mention the author in the article, as well as noting attitude markers and hedges, whereas the groups did not differ much in the use of boosters and engagements markers.

Discussion

In response to the first research question, the extent to which the differences exist between native English and Persian non-native speakers of English in the use of interactive metadiscourse markers in abstract sections of law research articles, the findings revealed that English writers employed more metadiscourse markers than their Iranian counterparts. The difference might be attributed to the fact that English speaking authors were writing in their own language and were actually more familiar with the rules of English structures. Additionally, the dominance of utilizing metadiscourse markers might be ascribed to the cultural background of the English authors in that they wish to establish a better reader-writer relationship to ensure coherence in their texts. Results of Chi-square tests confirmed the statistical significance of the difference among the two categories of native English and Persian law articles regarding the frequency of interactional MDMs with English authors utilizing more MDMs than their Persian counterparts.

Results of the present study are in line with those obtained by Garcia-Calvo (2002) who compared and contrasted Spanish and English abstracts of Linguistics and Bioscience articles. Her results showed that native English authors employed more MDMs than non-native (Spanish) ones. The findings are also in line with Hu and Cao (2011) who found that native English writers

used more interactional MDMs than their non-native counterparts. The outcomes further chime with yet another study by Ozdemir and Longo (2013) who compared interactive discourse in abstract sections in Turkish and American research articles and concluded that the frequency of metadiscourse markers differs significantly across the two cultures. These researchers further showed that the number of metadiscourse markers utilized by American researchers outweighed their counterparts, which justified the cross-cultural difference among the two groups. SoodmandAfshar and Bagherieh (2014) also comparing the frequency of *hedges* in MA/MS abstracts of Persian literature and civil engineering theses written both in English and Persian also reported that native English authors employed more *hedges* than non-native (Persian) authors. Nevertheless, the findings of the present study were in contrast with those of Kawase's (2015) study aimed at investigating metadiscourse markers in PhD theses as well as the related research articles published by the same authors in a short interval after their theses. Results indicated that the least frequent marker used among the five types highlighted by Hyland (2005) was evidentials. Also relevant here is the study conducted by Kawase (2015) who was able to show that the authors whose works were examined did not include many transitions in their research articles introductions. The researcher attributed the observed differences to the "tacit understanding between 'expert' writers and readers and thus tend to be less explicit in their exposition than we might expect in dissertations" (Swales, 2004, p. 119).

The second research question was posed to analyze the extent to which there are any differences between native English and Persian non-native speakers of English in the use of interactional metadiscourse markers in abstract sections of Law research articles. Obtained results revealed that there was a little significant difference among the two categories of native Persian and native English law articles regarding the frequency of interactive meta-discourse markers. The findings showed that native Persian writers use transitions more than native English writers. But the other interactive MDMs are employed more in English abstracts. In a study carried out by Ozdemir and Longo (2013) based on the model proposed by Hyland (2005), which is of direct relevance to the present research, it was found that Turkish authors tended to use more transitions than other categories in their abstract sections of research articles. The variations of the results were then interpreted to be because of cross-cultural difference between American and Turkish researchers. This provides evidence for the findings of the current study. The outcomes of this study also replicated those of Noorian and Biria (2010) revealing that compared with Iranian scholars, the importance of acceptance and solidarity in American culture induces American authors to utilize more interpersonal markers for their concern for reader/writer interaction.

In addition, in Mocanu's (2015) study where the focus was to find the most frequent elements of interactional metadiscourse, the correlation between the number of interactional markers and the publication maturity, and the increase in the metadiscourse markers over time, it was found out that the Romanian accounting authors tended to use more tangible metadiscourse elements over time. This has been referred to as the impact of historical changes such as the transition from communism to capitalism, the improvement in internationalization trend, and joining the European Union. By contrast, Farzannia and Farnia (2016) observed that the total use of metadiscourse markers by Iranian non-native writers outweighed native English writers in introduction sections of mining research articles.

The study of MDMs gives a clear distinction on the cross-cultural use of discourse among different writers. However, the difference can facilitate clear transfer and conveyance of the important information in abstract sections of their research articles, as well as other sections, for both readers and writers. This can also be of great significance for the field of ESL/EFL learning

and teaching where L2 teachers can raise learners' awareness of cultural differences and variations, manifested in the way academic texts are organized in terms of metadiscourse which might result in L2 learners' inadequate writing samples. (Mauranen, 1993). Indeed, by building upon the findings of meta-discourse studies, L2 teachers can help learners identify and use the discourse markers in developing and organizing discourse considering culture-specific norms.

According to the findings of this study and along with other related studies (Faghieh and Rahimpour, 2009; FiroozianPooresfahani, Khajavy and Vahidnia, 2012; Taki & Jafarpour, 2012; Jalilifar & Mehrabi, 2014; Crismore & Abdollahzadeh, 2010; Abdollahzadeh, 2003), the variation between Persian and English writers in terms of MDM utilization indicates that the culture is an effective aspect in academic world of research articles in terms of rhetoric, linguistic, and the discourse. As such, metadiscourse is a term related to textual elements which are over and above sentences, paragraphs, or even pragmatic level. In this respect, Dafouze-Milne (2008) claims that the metadiscourse differences lie in the fact that writing is a communicative and social process through which writers can develop texts and engage readers by expressing his/her propositions and viewpoints. In other words, the significance of abstract sections motivates non-native authors of "using a mixture of their cultural tendencies and an adaptation of themselves to the target language conventions" (Akbas, 2012, p.20).

To summarize, the findings of the current study might contribute to the researchers interested in the field of contrastive rhetoric, contrastive analysis, cross-cultural studies, studies of culture in Law articles, and the researchers studying the similarities and differences between Asian and Western cultures in terms of written language or academic texts.

Conclusion

To conclude, the present study set out to compare and contrast the frequency of metadiscourse markers in abstract sections of law articles written in English by native English and native Persian writers. The researchers analyzed the data against two taxonomies of Hyland and Tse (2004) and Hyland (2005). The analysis was carried out in terms of interactive and interactional metadiscourse markers. Regarding the interactive MDMs, the obtained results revealed that in both corpora analyzed interactive markers were utilized and there was not a significant difference between English and Persian abstracts. Although Persian writers tended to use more transitions, English writers employed other interactive markers slightly more than their Persian counterparts. The results of interactional markers analysis, on the other hand, indicated that the English corpus used hedges, boosters, attitude markers, self-mentions, and engagement markers more than Persian corpus. Transition markers were only used more frequently by Persian authors than their English counterparts.

By drawing on the findings, it can be concluded that in contrast to Persian authors, American writers may be less confident, more conservative, and more motivated to state their affective values in their writings. In the case of American writers, the dominance of the use of metadiscourse markers may be attributed to the of the authors' cultural background stressing the importance of establishing reader-writer relationship in their texts.

As a branch of pragmatics, L2 teachers are recommended to draw learners' attention to the way metadiscourse markers influence text organization and interpretation. It should be noted, however, that, as Crismore et al. (1993) rightly point out, gaining knowledge in this area of language is rather difficult. The findings of this and other related metadiscourse studies can help EFL teachers and learners pinpoint and tackle the problematic areas in the use of MDMs in their articles. Learners need to be familiar with the concepts of cohesion and coherence in the text

which can be achieved through learning the functional roles of interactive and interactional metadiscourse markers in different contexts.

This study has some limitations which need to be acknowledged. The study was limited to investigating the MDMs in 80 articles which was a rather constrained corpus. Hence, covering article abstracts from a variety of files under the scope of Law articles is recommended. Indeed, there is room for further research using a larger, inclusive sample on abstracts of different articles in various horizons of applied linguistics as well as other research areas. Lastly, future research can study different languages in terms of utilizing MDMS with the purpose of discovering the cultural/social differences based on the markers' use.

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