

World of Attitudes in Research Article Discussion Sections: A Cross-Linguistic Perspective

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Abstract: This study aimed to account for metadiscourse variations in the discussion sections of articles written in Persian and English and published in Iranian as well as international scholarly journals in English Language Teaching and Psychiatry. For this purpose, 90 research article discussions were selected, and then hedges and boosters were identified based on the taxonomies of metadiscourse markers. The results of the quantitative and qualitative analyses revealed significant differences in frequency, type, and functions of these devices in the texts. These differences might be attributed to lack of awareness of the conventional rules of English rhetoric, limited and fragile knowledge of academic English by Persian writers, and lack of explicit instruction and exposure to pragmatic and sociolinguistic rules of English by Persian researchers. Further research in other disciplines will help to make more accurate generalizations about the role of metadiscourse markers in research articles.

Keywords: Hedge, Booster, Persian, English, Psychiatry, English Language Teaching

1- Introduction

An important feature of academic writing is to evaluate evidence and draw conclusions from the data. Scientific writing is teemed with mitigating devices and expressions that carry the writers' attitudes. That is, academic writing cannot be considered as exclusively objective and factual, but there are features situated in text that encode the writer's point of view ([1-4]) and serve as mediators between the information presented in the text and the writer's factual information. This mediation can be done by metadiscourse markers which represent the ways that writers project themselves into their discourse to signal their attitude toward both the content and the audience of the text. Metadiscourse markers "help readers decode the message, share the writer's views, and reflect the particular conventions in a given culture" [5].

Two subsets of metadiscourse markers which may act contrastively are hedges and boosters [6]. The term hedging was introduced to describe "words whose job is to make things more or less fuzzy" [7]. Hedges mitigate the writers' certainty about or reduce their commitment to the propositions, but boosters increase the certainty in the propositions made by the writers. "Boosters are essentially argumental devices which help the writer regulate his attention more to the proposition or to the reader by emphasizing or diminishing the truth value or writer accountability" [8].

The importance of hedges and boosters seems to be twofold: 1) As pragmatic devices that help communicate meaning effectively, knowledge of

such devices is very crucial; 2) These pragmatic markers might also reveal different tendencies across articles published locally and internationally. Yet, contrastive studies of these devices that address the possible differences or similarities between languages are still insufficient to allow researchers to make valid generalizations.

Several studies have been done on the role of attitudinal markers in academic texts in different disciplines in English [2,3,8-11]; others have considered the effect of such devices across texts in different languages [12-14]. Still a few studies have attempted to analyze native and non-native writers' texts for such devices in English academic articles published in international and local journals [15-17]. A few studies have also suggested the effect of instruction on acquisition of boosters and hedges [13,18,19].

The above studies suggest the greater tendency of text analysts in tracing the influence of hedging choices made by writers. Though hedging has been of considerable interest among researchers across different languages, it has been of much less appeal in regard to writers of English articles with different native language backgrounds. The decline looms larger when it comes to boosters. In fact, no studies, at least as far as I know, have particularly focused on boosters in contrastive studies of scholarly articles. The present study, however, sets a different target. Aiming to account for the shortcomings of the previous studies, this study attempts to account for situational differences—in treating hedges and boosters—in discussion sections of articles written in Persian, and those in English published in Iranian as well as international scholarly journals in the disciplines of Applied Linguistics and Psychology.

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The study allows one to see the diversity involved in utilizing boosters and hedges across Persian and English scholarly article discussions as well as discussions written in English and published in Iranian and international journals thus tracing the effect of context of situation on the realization of such metadiscourse devices.

2- Methodology

2-1 Selection of disciplines

This study focused on research articles in two disciplines of Applied Linguistics and Psychology. Academic disciplines are divided into soft and hard fields [20]. The term soft science refers to the humanities and social sciences. From a traditional viewpoint, Psychology and Applied Linguistics are considered as sub-categories of Humanities within soft sciences. Moreover, finding articles written in English in disciplines other than Applied Linguistics and published in Iran is a very tough job since most discipline specific journals in Iran accept articles originally written in Persian. A further reason was motivated by the proximity in structure and format between the two disciplines. That is, the articles investigated in this research, with slight variations, follow the standard format of research articles which go through the four major phases of Introduction, Method, Result, and Discussion (IMRD).

2-2 Selection of articles

In the next stage of the study, the journals that represent Psychology and Applied Linguistics were selected. One potential source that could affect the study was the number of sub-disciplines in each of the two disciplines. Assuming that sub-disciplinary diversity might influence writers' choice of metadiscourse devices, this study concentrated on two sub-disciplines only. Thus, from Applied Linguistics, English language teaching (ELT) articles were selected and from Psychology, articles published in Psychiatry were selected for analysis. The choice was motivated by the existence of disciplines with English and Persian outlets as mentioned above.

For the purpose of the study, the most prestigious and available journals were selected. English articles in ELT were selected from Applied Linguistics and International Journal of Applied Linguistics; of 45 articles in the time span that was considered for this study, one in every three articles with ELT orientation was selected. 45 Persian English articles (articles written in English by Iranian researchers, hereby called *Perlish*) were also chosen from Iranian Journal of Applied Linguistics, ROSHD Foreign Language Teaching Journal, and Pazhuhesh-e Zabanhaye Khareji of which one in every three was selected. Persian articles were also picked from the latter two journals on the basis of their availability as

these journals publish both in English and Persian, acknowledging the fact that finding the latter articles was extremely hard as more Persian applied linguistics researchers tend to publish in English journals. Articles in Psychiatry written in Persian, by Persian writers and published locally were selected from Journal of Psychiatry and Adolescent Psychology and preferably the latest articles were selected. Similarly, English articles in Psychiatry were chosen from Canadian Journal of Psychiatry, and Persian English articles were selected from Iranian Journal of Psychiatry, Journal of Psychiatry and Behavioral Sciences. So, overall, 90 research articles representing ELT and psychiatry were selected. The articles were all experimental in design excluding theoretical and review articles. This was to give the researcher the chance to compare the articles in one section during and after the analysis. The following Table demonstrates the number of articles selected in the two disciplines.

Table 1 Distribution of Articles in ELT and Psychiatry

	ELT	Psy ²
Persian	15	15
English	15	15
Perlish ¹	15	15

In order to make the study manageable, analysis was carried out on the discussion sections of the articles where authors make their claims and explore implications not directly tied to experimental findings [2]. Research has demonstrated that the discussion section in Humanities and social sciences is the most argumentative where authors deal with points and interpretations of their results and where they can make corroborated claims. It is perhaps due to these distinctive features that authors may make frequent use of hedges and boosters. This unique nature of discussion section was the driving force behind the focus in this study.

Systematic generic analysis of results, discussion, conclusion, and pedagogical implication sections of applied linguistics articles showed that these sections tend to relate to one another [21]. Their analysis provides solid evidence that the four sections may overlap and explains why the latter three sections can function as the closing sections of an article, though they differ in terms of their communicative purposes for which they were developed. In light of the function served by these three sections, this study coalesced them into the discussion section. This also guaranteed that all the arguments raised and disseminated by authors across the sections following the results section were taken for analysis.

2-3 Codification of hedges and boosters in terms of types

The study incorporated the model proposed by for analysis of texts[4]. This is a detailed model with 7 categories. The eighth category, category H, was borrowed from the work by [22]:

A. Modal auxiliary verbs (modaux): Modality may be defined as the manner in which the meaning of a clause is classified so as to reflect the speaker's judgment of the likelihood of the proposition it expresses. The most tentative ones being may, might, could, would, should.

B. Modal lexical verbs (modlex): These verbs are the so-called speech act verbs used to perform such acts as doubting and evaluating rather than merely describing, and they are regarded as having varying degrees of illocutionary force. Examples are seem, appear (epistemic verbs), tend, believe, assume, suggest, estimate, think, argue, indicate, propose, speculate.

C. Adjectival, adverbials, and nominal modal phrases (Adjal): a) probability adjectives like possible, probable, un/ likely, b) nouns such as assumption, claim, possibility, estimate, and c) adverbs like perhaps, possibly, probably, likely, virtually, apparently.

D. Approximators of degree, quantity, frequency, and time (Approx): These elements serve to express an approximation of the force of the verb while they indicate that the verbs concerned express more than is relevant. Examples of these approximators are approximately, roughly, about, occasionally, generally, usually, somewhat, a lot of, several.

E. Introductory phrases (Intro): These phrases express the author's personal doubt and direct involvement such as to our knowledge; it is our view that, we feel that.

F. If clauses (Ifcl): These clauses express conditions, for example if true, if anything.

G. Compound hedges (Comp): These are phrases with several hedges, the commonest forms being, a) a modal auxiliary combined with a lexical verb with a hedging content (e.g., it would appear) and b) a lexical verb followed by a hedging adverb or adjective where the adverb (or adjective) reinforces the hedge already inherent in the lexical verb (e.g., it seems reasonable). Such compound hedges can be double hedges (it may suggest that; it seems likely that), treble hedges (it seems reasonable to assume that), quadruple hedges (it would seem somewhat unlikely that), and so on.

H. Hedging by passive voice (Pas).

For boosters, the classification put forth by, was selected, and one more category mentioned by-verbs- was also included since this category was missing in work [17,18]. So boosters were studied in four categories of a) modal verbs such as must and should, b) adverbials such as much, a lot, clearly,

obviously, c) adjectivals such as clear, significant, d) verbs such as demonstrate, show, know.

Codification of hedges and boosters in terms of functions

The model used here to analyze hedges in terms of their functions was generalizations in determining the core cases [3]:

1. Attributive hedge (Attri): The hedge specifies the extent to which a term accurately describes the reported phenomenon. Note the following example:

(1) Similarly, in study, the boys' global self esteem scores were slightly higher than those of the girls [23]. (ELT, Persian writer)

2. Reliability hedge (Relia): The principal role of the hedging device here is to convey the writer's assessment of the certainty of the truth of a phenomenon. For example,

(2) Presumably, the well-known attitude that grammar is boring owes a lot to activities like this. (ELT, English writer)

3. Writer-oriented hedge (Writo): This function occurs in a context which conceals writer's viewpoint and avoids personal responsibility for propositional truth.

(3) As this study indicates, one of the advantages of this combination is a better and earlier improvement. (Psychiatry, Persian writer)

4. Reader-oriented hedge (Reado): The writer acknowledges personal responsibility for the validity of propositional content or invites reader involvement.

(4) We believe that nonparaphilic sexomania is less likely to be seen in a clinical setting. (Psychiatry, English writer)

A category for certainty markers (boosters) called perspective with two parts assigned to it was proposed [24].

1- Reported point of view: This can refer to individuals or organizations. The writer reports or cites another group or expert's opinion. Take the following example:

(5) The importance of academic games and practice activities in contrast to formal situations in handling risk-taking is emphasized [25]. (ELT, Persian writer)

2- Writer's point of view: This refers to the experiencer of certainty at the time of writing a statement. For example,

(6) The results of the study show that co-morbidity in both axes was predominantly characterized by disorders of an anxious and depressive nature. (Psychiatry, English writer)

In determining metadiscourse features of text, there is always a certain degree of subjectivity involved. Some writers like categorize expressions such as show, always, will, and demonstrate as boosters while writers like regard them as hedging devices [10,12,18]. It was assumed that there is no fixed category for hedges and boosters outside the context

because metadiscourse markers are realities of text in context. This study followed the suggestions made by Crompton and looked at the way that these devices cropped up within the context; that is, the recognition of the functions of these devices, depends on the context [1,4,18,26]. Consider the following examples:

(7) Saxon et al. showed that only 1% of Bjps published articles come from lower and middle income countries. (Psychiatry, Persian writer)

(8) They did not show to know which verbs do and which verbs do not alternate. (ELT, English writer)

The verb show in example 7 acts as a booster due to the context of its use and the co-text around it; for example, the word only here shows the high degree of certainty on the part of the writer, but the verb show in example 8 operates as a hedge because the words which follow it create some degree of doubt in the reader; for example, the word which entails uncertainty in the statement made by the writer.

2-4 Procedure

In order to reduce the impact of time and possible changes in writing styles of the writers, articles published between 2002 and 2007 were selected with the exception of one article in ELT written in Persian and published in 2008. The research articles, either obtained directly from the electronic versions of the relevant journals or from the hard copy journals, were scanned and converted into Rich Text format. Word count was run on the corpus to have a rough estimate of the quantity of the data. Since articles in Persian could not be converted into Rich Text, they were counted twice manually by the researcher. The articles were read carefully to identify the hedges and boosters, but as the frequency of these devices would not per se be very useful, a rigorous analysis was conducted considering the functional meaning.

3- Results

3-1 Types and functions of hedges in ELT articles

Persian-English and English writers generally comparatively utilized more hedges (4%) and (4.7%), almost double the Persian writers, implying the greater caution taken by English writers in the claims they make in discussing their results. On the contrary, Persian articles, being less hedged, indicated that, on average, Persian authors make more bold claims in their article discussions (Table 2). The data in the present study could not be used only as raw frequencies because the RAs were of varying length and were not directly comparable, and so one could not see whether the observed frequencies were related or independent; therefore, chi-square test was administered to compare

frequencies, and it revealed significant differences between Persian and English articles ($X^2= 72573$, $df= 14$, Sig. .000).

Table 2 Type of Hedges in Discussion sections of Applied Linguistics Articles

Type	PELT	PEELT	EELT
	F (%)	F (%)	F (%)
Modaux	59 (27.6)	83 (17.1)	144 (18.4)
Modlex	29 (13.6)	72 (14.8)	106 (13.5)
Adjal	42 (19.7)	37 (7.6)	93 (11.8)
Approx	44 (20.6)	86 (17.7)	144 (18.4)
Intro	-- (0)	-	1 (0.2)
Ifcl.	8 (3.7)	17 (3.5)	35 (4.4)
Comp	2 (0.9)	7 (1.4)	
Pas.	26 (12.2)	182 (37.6)	228 (29.1)
Total hedges	213 (2.2)	484 (4)	782 (4.7)
Total words	9570	11887	16425

Modaux: modal auxiliary, Modlex: modal lexical, Adjal: adjectival, adverbial, nominals, Approx: approximators, Intro: Introductory, Ifcl: if clause, Comp: compound, Pas: passive

PELT: English Language Teaching articles in Persian journals

PEELT: English Language Teaching articles in local English journals

EELT: English Language Teaching articles in international journals

The results showed meaningful differences between the choice of terms used as hedging devices in the articles written by the three groups of writers in terms of their types and frequency. Persian writers' tendency in using more modal auxiliaries, adjectivals, adverbials, nominals, and approximators, and absence of introductory hedges and less use of passive constructions in their articles might point to linguistic preferences in Persian academic texts or deviations from the more familiar features adopted in English academic discourse.

The discussion section of English and Persian-English articles depicted closer relationship in using hedging. Persian-English writers' greater use of passive voice in their articles, contrary to conclusions, might indicate linguistic tendencies adopted by local discourse community members, confirming that passive voice is the preferred structure in English and Persian-English articles [15,16].

English and Persian-English writers used almost the same degree of modal auxiliary, modal lexical, approximators, and if clauses. Concerning adjectivals, adverbials, and nominals, both English and Persian-English writers made less use of these items than Persian. The similarities might be interpreted in terms of generic tendencies and

awareness of local and international authors of the discursive features of academic English. English writers used more reader-oriented hedges compared to Persian and Persian-English writers; this reader-friendliness is in line with the findings by [14,28]. Both English and Persian-English texts were also more writer-oriented and conservative and confirmed the results of the study by in which writer-oriented and accuracy function of hedges were more distinguished [9]. There was a greater proximity in using attributive function in all three groups whereas reliability function was egregiously high in Persian articles. Table 3 shows the difference in the functions of hedges in ELT articles under the study, and chi-square analysis indicates that the difference is significant ($X^2= 2250303$, $df = 6$, $Sig .000$).

Table 3 Functions of Hedges in Three Registers of ELT

Function	PELT	PEELT	EELT
	F (%)	F (%)	F (%)
Reado	8 (3.7)	23 (4.7)	119(15.2)
Writo	57 (26.7)	266 (54.9)	334 (42.7)
Attri	44 (20.6)	84 (17.3)	132 (16.8)
Relia	101 (47.4)	111 (22.9)	197 (25.1)
Total hedges	213 (2.2)	484(4)	782(4.7)
Total words	9570	11887	16425

3-2 Types and functions of boosters in ELT articles

English writers made more use of adverbials compared to Persian writers. Also English writers had a greater tendency to use modal auxiliary and adverbials than Persian English writers whereas the latter group relied more on verbs and adjectives. The similarities found between Persian-English and Persian writers in using verbs and adjectives could imply the influence of Persian writing style on Persian-English writers in selecting these types of boosters (See Table 4). Chi-square analysis also showed a significant difference in types of boosters incorporated by the groups ($X^2= 24.898$, $df= 6$, $Sig .000$).

Table 4 Type of Boosters in ELT Discussion Sections

Type	PELT	PEELT	EELT
	F (%)	F (%)	F (%)
Modaux	33 (24.6)	22 (12.9)	33 (19.6)
Vb	47 (35)	71 (41.7)	48 (28.5)
Adj	32 (23.8)	34 (20)	25 (14.8)
Adv	22 (16.4)	43 (25.2)	62 (36.9)
Total boosters	134 (1.4)	170(1.4)	168(1)

In addition, the greater degree of certainty involved in English discussions was predicted by writer's point of view function. Compared to Persian and Persian-English writers, the results of the chi-square showed that the difference was significant ($X^2=10.485$, $df= 2$, $Sig. 005$).

Table 5 Function of Boosters in Discussion Sections of ELT

Function	PELT	PEELT	EELT
	F (%)	F (%)	F (%)
1 WPW	121 (90.2)	147 (86.4)	162 (96.4)
2 RPW	13 (9.7)	23 (13.5)	6 (3.5)
Total boosters	134 (1.4)	170 (1.4)	168 (1)
Total words	9570	11887	16425

1. Writer's point of view 2. Reported point of view

3-3 Types and functions of hedges in Psychiatry articles

The statistical analysis of hedges, (Table 6) showed that, generally, English and Persian-English authors utilized hedges by 4.4% and 3.8%, almost double the Persian writers displaying greater caution taken by writers in the former group in asserting their claims in their discussions. Persian English and English writers made frequent use of modal auxiliary perhaps due to the shared knowledge of both groups of authors of the academic discourse. On the other hand, the prevalence of modal lexical in Persian writings might reflect Persian-language specificity. Results indicated that the difference in the use of hedges among groups was statistically meaningful ($X^2= 35.703$, $df = 14$, $Sig .001$). Table 6 illustrates the frequency of hedging types.

Table 6 Type and Frequency of Hedges in Three Registers of Psychiatry

Type	PPsy	PEPsy	EPsy
	F (%)	F (%)	F (%)
Modaux	32 (14.6)	73 (20.5)	110 (18.1)
Modlex	36 (16.5)	39 (10.9)	68 (11.2)
Adjal	49 (22.4)	38 (10.7)	85 (14)
Approx	52 (23.8)	94 (26.4)	132 (21.7)
Intro	-- (0)	2 (0.5)	7 (1.1)
Ifcl.	2 (0.9)	5 (1.4)	18 (2.9)
Comp	5 (2.2)	6 (1.6)	13 (2.1)
Pas.	42 (19.2)	98 (27.6)	176 (29)
Total hedges	218 (2.1)	355(3.8)	606 (4.4)
Total words	9937	9191	13504

PPsy: Persian Psychiatry, Psy: English Psychiatry, PEPsy: Persian English Psychiatry

Table 7 shows English texts tended to be more reader-oriented and faithful to the involvement of the readers in the text. This function stresses the

interactive nature of English article discussion in which the author and the reader's presence are both felt in the text. Differences also existed in Reliability function in English and Persian article discussions alluding to different writing styles adopted in the texts in both languages ($X^2 = 24.937$, $df = 6$, $Sig. .000$).

Table 7 Function of Hedges in Three Registers of Psychiatry

Function	PPsy	PEPsy	EPsy
	F (%)	F (%)	F (%)
Reado	2 (0.9)	16 (4.5)	54 (8.9)
Writo	83 (38)	137 (38.5)	240 (39.6)
Attri	52 (23.8)	94 (26.4)	124 (20.4)
Relia	81 (37.1)	108 (30.9)	188 (31)
Total hedges	218 (2.1)	355(3.8)	606(4.4)
Total words	9937	9191	13504

3-4 Types and functions of boosters in Psychiatry articles

English writers made more frequent use of modal auxiliaries and adverbials compared to Persian-English and Persian writers. Less use of these boosters by Persian writers might be relevant to the rhetorical structure and the stylistic features of Persian language, supporting the findings of who notes that non-native speakers made use of a limited repertoire of boosters available to them [29]. Persian-English and Persian writers were somehow similar in utilizing verbs which might emanate from the authors' native language.

Table 8 Type of Boosters in Three Registers of Psychiatry

Type	PPsy	PE Psy	EPsy
	F (%)	F (%)	F (%)
Modaux	4 (3.8)	8 (7.4)	22 (16.5)
Vb	66 (64)	58 (53.7)	51 (38.3)
Adj	29 (28)	22 (20.3)	24 (18)
Adv	4 (3.8)	20 (18.5)	36 (27)
Total boosters	103(1)	108(1.1)	133(0.9)
Total words	9937	9191	13504

Results of chi-square applied to the data revealed significant differences between the groups ($X^2 = 39.052$, $df = 6$, $Sig. .000$).

As shown in Table 9 below, writer's point of view function was predominant in the three groups. The intimacy between Persian-English and Persian writers in this function may also be culture specific and not affected or shaped by the modality.

Table 9 Function of Boosters in Three Registers of Psychiatry

Function	P.Psy	PE. Psy	E. Psy
	F (%)	F (%)	F (%)
1 WPV	85 (82.5)	82 (75.9)	130 (97.7)
2 RPV	18 (17.4)	26 (24)	3 (2.2)
Total boosters	134(1.4)	170(1.4)	168(1)
Total words	9570	11887	16425

1. writer's point of view 2. reported point of view

Results of chi-square again revealed significant differences in the articles in rendering boosters functions ($X^2 = 25.865$, $df = 2$, $Sig. .000$).

3-5 Cross-disciplinary analysis of hedges

Descriptive analyses of the two disciplines suggested a close correspondence in terms of types and frequency of hedges which is likely to be due to the nature of the two disciplines, representing soft fields, and the authors' knowledge of academic writing. The comparison also displayed a balanced distribution in terms of the functions of hedges. ELT writers tended to be reader-oriented and writer-oriented, but English Psychiatry writers opted for more attributive and reliability functions; so the tendencies can probably be discipline specific.

There were similarities between Persian-English ELT and Psychiatry writers in using such hedges as introductory and compound. Moreover, Psychiatry writers used more modal auxiliary, approximators, adjectivals, adverbials, and nominals while writers in ELT used more passive and modal lexical. Once again, application of different categories of hedges might reflect disciplinary tendencies. Both groups of Persian writers were very similar in utilizing the reader-oriented hedge but different in other functions. ELT writers were more writer-oriented while Psychiatry writers made more frequent use of attributive and reliability functions. Persian ELT and Psychiatry writers also shared similarities in using different types of hedges. For example, both groups of writers used no introductory phrases in their articles which can be related to the rhetorical structure of Persian texts.

In terms of functions, both Persian-English and Persian writers tended to be less reader-oriented in their work compared to their English counterparts. Persian writers included more reliability hedges than Persian Psychiatry writers while Persian Psychiatry writers were more writer-oriented and used more attributive functions.

3-6 Cross-disciplinary analysis of boosters

English ELT writers used more modal auxiliary and adverbials in their articles while English Psychiatry writers made more use of verbs and adjectivals.

These differences may stem from the nature of the tasks and typical structure of each discipline as well as specific features of each writing style. Persian English ELT and Psychiatry writers shared similarities in using adjectives, though no similarities were seen in other categories by both groups. ELT writers tended to use more modal auxiliary and adverbials while Psychiatry writers used more verbs. The next group of writers, Persian ELT writers, tended to use more modal auxiliaries and adverbials while Persian Psychiatry writers showed tendency in using more verbs and adjectives which displayed their inclination in using specific groups of boosters.

Both groups of English ELT and Psychiatry writers made frequent use of writer's point of view function in their articles. A close comparison of Persian English ELT and Psychiatry writers showed that they tended to incorporate more reported-point of view of boosters in their articles although the greater tendency was paid to writer's point of view. While Persian ELT and Psychiatry writers also showed similar uses in reported-point of view function of boosters, only Persian Psychiatry writers made more use of reported-point of view.

4- Discussion

The general findings of this study revealed some cross-disciplinary and intra-disciplinary metadiscourse knowledge characteristics within English, Persian-English, and Persian article discussions. Previous studies only offered cross-disciplinary differences or analyzed only very small corpus and ignored certain functions of hedges [2,9,13].

The differences between Persian and English writers in utilizing hedges and boosters might stem from the insufficient awareness of Persian researchers of the role of these metadiscourse markers and the fact that they do not usually receive explicit instruction on these devices in Persian academic context. Conscious knowledge of such metalinguistic elements would be a step toward shaping the characteristics of Persian. Academic writing possesses its own intricacies and nuances, and acquisition of this skill requires commitment on the part of the writer. It is unfortunate that little has been done in Persian context to improve academic literacy and consequently, there seems to be very little work on the nature of academic Persian. The structure and the style of Persian writing may also mark differences in the rhetorical structure of the two languages which may explain writers' tendencies toward certain kinds of metadiscourse markers than other types. For example, Persian writers' less use of the passive voice may not be indicative of less objectivity in their work; it is only that objectivity is

realized through other linguistic elements than passive in Persian.

Vague knowledge about these expressions might also be the second reason. The writer's problem with these epistemic devices is basically due to the wide range of devices that can be used for effective communication and the multiplicity of meanings that writers simultaneously convey. The choice of a specific device does not always permit a single pragmatic interpretation. It is often impossible to relate particular forms exclusively to specific functions. Metadiscourse markers may simultaneously convey an attitude both to propositions as well as to readers. A writer may use a hedge, not only to express doubt and reduce personal accountability for a statement but also to gain acceptance for a claim by showing sensitivity to the views of readers and by seeking to involve them in a dialogue.

Differences between Persian and English writers also bulk large in the way that boosters are rendered; for example the verb show and adjective significant were the most frequent in Persian discussion sections. First, Persian writers may have a limited repertoire of boosters in academic context, or it may be a Persian stylistic feature to rely on such linguistic elements unduly when they launch their argument or show the degree of reinforcement. Biased distribution in categories of boosters in Persian texts reveals writers' unawareness of the weightings that these categories might carry. English writers, on the other hand, appeared well aware of these devices and used different types of boosters perhaps on a quest to leave different impressions on readers or audiences. Concerning the boosters' functions, Persian writers used writer-oriented and reported-oriented point of view to give credibility and increase the reliability of their writing. But English writers for the most part used writer-oriented point of view, that is, they were sure of the results. Note the following examples.

(9) The findings of this study did not show significant difference in the quality of life among the males and females students of Isfahan University. (Psychiatry, Persian writer, writer's point of view)

(10) Showed that typical teachers had two significant characteristics: 1) logical excitement 2) friendly social relationship [30]. (ELT, Persian writer, reported-point of view)

Example 9 shows writer's certainty toward the proposition, but example 10 shows the reported-point of view which the writer uses to support his or her claims or work.

A writer's certainty level may remain constant in a text, go unnoticed by the reader, or fluctuate from statement to statement blatantly to attract reader's attention. In English texts the level of certainty did not remain constant because they mostly used

different varieties of boosters with different effects, so they communicated a feeling of certainty to their readers. Note the following examples from articles written by English writers.

(11) Our data actually show that while children certainly do speak more Korean in TS's class than in N's class.... (ELT writer)

(12) Current research shows evidence of hippocampal structural changes in patients with PTSD; there is no clear causal result between hippocampus and PTSD. Remarkably, even when exposed to a similarly significant and stressful trauma.... (Psychiatry writer)

In the above examples, writers try to catch the readers' attention by using more than one booster, and in fact different types of boosters, to show the importance of their work and emphasize it. The clusters of boosters like should be mindful of the fact, much stronger, must do, fairly clear, should always in English articles tacitly imply that English writers have a rich stock of boosters with which they can maneuver in their texts, catch their readers eyes, and ensure their readers of results. On the other hand, contrary to claims that boosters in Persian articles imply the research findings being largely monolithic, Persian writers' greater attribution of propositions to other researchers, increases the certainty of their research [14]. That is, certainty is achieved through mentioning other works.

Lack of consistency in right application of these devices might lead to a situation in which they nullify each others' effect. Consider the following example in which the writer uses the booster confirm to assure the readers (where an English writer might prefer a weaker form e.g., suggest), but immediately following that, he uses a hedge, and so the reader seems to be stuck in limbo whether to accept or to reject the writer's point of view.

(13) These findings confirm that a narrative passage can have a greater positive effect on the amount of information they remember shortly after their reading that passage. (Persian ELT writer).

Academic English is characterized by use of more hedges and less boosters, which indicates that English writers are more tactful in asserting their claims and they tend to address their readers indirectly, but Persian writers seem to be less conservative and instead address their readers directly. The danger in using boosters is that they put the writer at risk of being criticized by readers. Persian writers' frequent use of boosters might indicate that they are so sure of their results that they use forceful expressions, leaving little doubt that their interpretation might turn out to be otherwise. This untactful use of metadiscourse devices might imply Persian writers' fragile knowledge of such devices.

A further reason for the existing differences is that the two kinds of rhetoric-Persian and English-fulfill different expectations. There are two kinds of rhetoric: writer-responsible rhetoric and reader-responsible rhetoric [32]. In the former, the writer is responsible to make the text clear to the reader by using appropriate signposts, but in the latter, it is the responsibility of the reader to understand what writer intended to say. Thus, while in Persian writing, a reader-responsible language, writers use a less hedged discussion and readers are assumed to infer much from the text, English texts, writer-responsible, allow more hedges in discussion and guide readers through the text.

Concerning the functions performed by hedges, both groups of Persian writers in ELT and Psychiatry tend to be less reader-oriented in contrast to their English counterparts. Culture is significant in defining what we say, and how, where, and when we say it [19]. The high degree of reader-oriented function in English articles supports the results of the studies by [14,28]. When we argue that English articles are reader-oriented, we mean that English writers invite their readers to take part in a dialogue and leave room for negotiation which implies feedback on the part of readers. Writers thereby try to draw the reader into the deductive process and treat the audience as capable of making the same logical inferences. Moreover, frequently used personal pronouns by native writers indicate that English writers do not detach themselves from the discourse community. This is one of the characteristics of western writing, "not just the stylistic optional extras" in comparison to eastern writing, which lets its readers get involved in the argument [32].

Following are four examples of self-mentioning which function as reader-oriented. The first two are examples of self-mentioning as the subjects of booster show, and the next two as the subjects of hedges believe and indicate.

(14) Our findings have shown that students re-use language taken from other sources in all of the sections of the prototypical IMRD papers. (ELT, English writer)

(15) Our results show that the use of contrastive input, coupled with explicit rules introduced algorithmically. (ELT, English writer)

(16) We believe that one cannot exclude the possibility of genuine parasomnia that features such underlying intent. (Psychiatry, English writer)

(17) Our results indicate that discontinuation rate was lower for patients using olanzapine, compared with those using risperidone. (Psychiatry, English writer)

5- Conclusion

Comparison of Persian-English and English article discussions in ELT and Psychiatry reveals differences in choice of devices, mostly due to the context in which hedges and boosters are used. When their articles are to be published locally, Persian-English writers rarely receive any comment from reviewers on the right lexical choice, so they do not give due attention to these stylistic devices (at least my personal experience of publishing in local English journals is a case in point). Sometimes their knowledge of these devices leads to more frequent use of reported-point of view of function. Of course, their knowledge of first language also affects the way that they use these metadiscourse markers; for example, low occurrence of personal pronouns affects their style of writing and results in more writer-oriented articles.

Still, another difference is the size of the community that they address. Local writers address their smaller local discourse community whereas writers for international journals address a much larger discourse community with greater expectations. In addressing a larger discourse community, writers need to be more cautious of the claims that they make, take greater care not to make uncorroborated claims, and launch effective arguments to convince their target discourse community of their conclusions and also protect themselves against possible stigmatization. The local discourse community, on the other hand, sets much lower expectations concerning the outcome of the study, and so this might reduce the pressure on the writer to make more reserved claims.

Clearly a contrastive analysis of Persian and English rhetoric – the choice of linguistic and structural aspects of discourse-and explicit instruction of these structures, forms, and functions will familiarize the writers with rules and conventions of different cultures. Contrastive rhetoric can show us that there are categories which are language-specific and shape written text in different languages and cultures; and awareness of these categories is important for the development of writing.

Notation

¹Perlish: Persian- English

²Psy: Psychiatry

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