Ethnolinguistic Influence on Citation in English and Persian Hard and Soft Science Research Articles

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ABSTRACT

Citation, as a central and integral issue in academic writing, has been the focus of many recent scholarly articles to highlight the significant role of this discursive practice in the realm of research article writing. Nonetheless, most of the previous studies, with notable exceptions, examined disciplinary influences on citation practices independently of ethnolinguistic influences, and vice versa. The present study investigates the doubly contrastive language-discipline perspective on the one hand and draws a distinction between disciplinary cultures and national cultures on the other. A corpus of 240 research articles sampled from leading Persian and English language medium journals of applied linguistics and psychology as representatives of soft sciences, and computer engineering and mechanical engineering as representatives of hard sciences, was examined drawing on Coffin's (2009) integrative analytic framework. Quantitative and qualitative analyses of the several aspects of citation features of Bakhtinian dialogism demonstrated some cross-disciplinary and cross-linguistic similarities and differences. Pedagogical implications derived from these findings are discussed.

Keywords: citations; Persian and English Academic writing; writer stance; author integration; textual integration

INTRODUCTION

Citation can be considered a central issue in academic writing. The ability to make appropriate references to the existing literature is fundamental to successful academic writing (Hyland 2000). An appropriate use of citation is of great significance since it provides credibility for one's own position and work (Hyland 2000). Citation, as one of the distinguishing features of scholarly papers or academic writing, becomes a common interest not only for English for Academic Purposes EAP scholars but also for sociologists of science and information scientists (Hyland 2000, Petric 2007, Thompson 2005). Although different approaches and methods are implemented in these different fields, all researchers need to know how to cite the prior publications or authors in their work. This is because researchers tend to both acknowledge the works of others and promote their own knowledge claims or their own credibility in research (Jalilifar & Dabbi 2012).

Researchers establish a niche for themselves within a particular discourse community by attributing the propositional content to the existing literature (Hyland 1999). As an integral part of academic discourse and a distinctive feature of scholarly publication, citation has attracted

research attention in several disciplines (White 2004). This discursive phenomenon has been investigated and referred to as academic attribution (Hyland 1999), bibliographic reference (Fløttum, Dahl & Kinn 2006), citation (Bazerman 1988), discourse representation (Fairclough 1992), and referencing (Small 2010).

Several scholars have conducted research on the citation practice and its problematic areas (Angeʹlil-Carter 2000, Bazerman 1988, Borg 2000, Hyland 2000, Shooshtari & Jalilifar 2010, Pecorari 2006, Petric 2007, Thompson 2005, Nguyen & Pramoolsook 2016, just to name a few among others) with the intention to highlight the crucial role of this practice in the realm of research article writing.

Most of the previous studies, with notable exceptions, examined disciplinary influences on citation practices independently of ethnolinguistic influences, and vice versa. Though this strategy is useful in controlling external variables, we cannot understand whether cross-disciplinary differences found in a certain language is identifiable across other languages, or cross-linguistic differences found in a particular discipline work the same for other disciplines (Hu & Wang 2014, Fløttum et al. 2006). The present study tended to address this limitation of the previous studies and took into account 'the doubly contrastive language-discipline perspective" (Fløttum et al. 2006, p.217) on the one hand and drew a distinction between disciplinary cultures and national cultures on the other.

Given the fundamental role of citation in academic writing and the widespread recognition of academic writing generally and citation specifically as situated literacy practices (Bazerman 1988, Hyland 2013), this study intended to explore multiple aspects of citation – citation density, writer stance, textual integration, and author integration – drawing on Coffin's (2009) integrative analytic framework. In particular, the selected dimensions of citation were examined from a cross-disciplinary (soft science vs. hard science) and a cross-linguistic (Persian vs. English) perspective simultaneously.

To address the identified limitations of previous research, this study drew on Coffin's (2009) theoretical framework to investigate the dimensions of citation mentioned above in an integrative analytic framework. It set out to examine the selected dimensions of citation from cross-disciplinary and cross-linguistic perspectives simultaneously. Specifically, the study sought to answer the following questions:

1. Are there differences/similarities in citation density, writer stance, textual integration and author integration in sample research articles (henceforth, RAs) from applied linguistics and psychology (as representatives of soft science) and computer and mechanical engineering (as representatives of hard science)?
2. Are there differences/similarities in the aforementioned aspects of citation between RAs written in Persian and English?

THEORETICAL FRAMEWORK

Systemic Functional Linguistics (SFL), the theoretical framework underlying the present study, is an approach to linguistics which considers language as a system. SFL as a comprehensive theory of language and social context analyzes a text, spoken or written, from a functional point of view, and seeks to provide a clear relationship between functions and grammatical systems (Halliday 1994).

An essential concept of theory is that whenever language is used, no matter in what conditions, the user is making constant choices. These choices are genuinely choices in meaning but are expressed by intonation, words, and grammatical structures.

APPRAISAL

Appraisal (Martin 2000, Martin & White 2005) is a comprehensive term containing all the linguistic resources for the expression of affect, judgment, assessments, and the negotiation of stance and ideological positions (White 2001). As an extension of the theoretical linguistic framework of Systemic Functional Linguistics, appraisal categorizes the resources language users employ to manage interpersonal roles and relationships, to establish empathy, negotiate solidarity and alignment (Fuoli 2012).

Appraisal is an approach to exploring the way language is used to manage interpersonal positioning and relationships. It explains how speakers and writers judge other people and their utterances, material objects, as well as happenings and states of affairs, and separate themselves from those who have different views or join with those having similar ideas. It explores whether the attitudes and emotions are overtly communicated or they are indirectly implied (Martin 2000).

COFFIN'S FRAMEWORK

Coffin (2009) developed an analytic framework drawing on systemic functional linguistics and recent formulations of appraisal theory (Martin & White 2005, White 2003, Hu & Wang 2014) Gaining inspiration from the system of engagement particularly the subsystem of attribute in appraisal theory, "the analytic framework focuses on linguistic resources that enable a writer to engage with sources in either a dialogically expansive or contractive way" (Hu & Wang 2014, p. 16). The "dialogic functionality" (White 2003, p. 261) of the linguistic resources for citation operates on three dimensions in Coffin's analytic framework.

Writer stance, as the first dimension, characterizes a number of positions that the citing writer can take in relation to the voices, viewpoints, and ideas of the cited authors.

(1) **Acknowledge**: A writer adopts a neutral position and makes no evaluative judgment on the cited proposition.
(2) **Distance**: The citing writer builds distance between him/herself and the cited proposition to avoid being held responsible for its reliability. Both acknowledge and distance are dialogically expansive because they allow for alternative perspectives and voices. In simple words, we can claim that dialogically expansive features allow multiple points of view.
(3) **Endorse**: The writer directly or indirectly supports or agrees with the cited proposition. It is dialogically contractive as the linguistic choices the writer employs will give explicit support to the source and make it more difficult for a reader to challenge or disagree with the author/writer.
(4) **Contest**: The writer indicates a negative attitude toward the cited source by direct criticism or rejection. Similar to endorse, contest citations are dialogically contractive since the citing writer indicates a "personal investment in the viewpoint being advanced" (White 2003, p. 271). In other words, the linguistic choices adopted by author(s) makes it more difficult for the reader(s) to mentally challenge or disagree with the proposition.

The second dimension of Coffin's analytic framework, textual integration, encompasses the extent to which a cited proposition is integrated into the citing sentence. In simple words, whether the referenced beliefs, or concepts directly quoted, or they are rephrased or reshaped in some way (Coffin 2009). There are three available options: (1) Insertion, by which the writer quotes the cited proposition directly; (2) Assimilation, by which the writer paraphrases or summarizes a cited proposition; (3) Insertion + Assimilation, by which the writer combines the first two options. Moreover, as Swales (1990) pointed out, textual integration encompasses the distinction between integral and non-integral citations. In an integral reference the author's name occurs in the structure of the text whereas in a non-integral citation, the author's name appears outside the structure of the sentences, separated from the text. Similar to what Hu & Wang (2014) did in their research, author integration is used in this article to refer to the distinction between integral and non-integral references.

The nature of source, the last dimension of Coffin's analytic framework, distinguishes cited sources in terms of personalization (i.e., how personalized they are) and identification (i.e., how they are identified).

The analytic framework outlined above views writing as Bakhtinian dialog in which the writer is engaging retrospectively with previous authors and communicating prospectively to an audience. Compared with other analytic schemes, it embraces more aspects of citation as a literacy practice, and provides a more comprehensive picture of the uses, forms, and functions of citation across different cultural and disciplinary contexts (Hu & Wang 2014, Coffin 2009).

DESIGN

A mixed methods research design was adopted as both qualitative and quantitative statistical analyses were employed.

CORPUS

To address the research questions, a corpus of 240 RAs comprising eight parallel subcorpora was constructed: applied linguistics, psychology, computer engineering, and mechanical engineering RAs written in Persian and English.

In the present study, soft science is used as an umbrella term for applied linguistics and psychology to clarify the fuzziness that normally arises for their classification as they are on the crossroad of social science and humanities (Flottum et al. 2006). Some issues of the mentioned disciplines lean toward social science and some are more relevant to humanities. Broadly speaking, Hyland (1999 p. 12) characterizes social science and humanities as soft science and engineering fields as hard science based on what he called "the traditional distinction.

The cross-disciplinary focus on applied linguistics and psychology as representatives of soft science and computer and mechanical engineering as representatives of hard science stemmed from their traditional membership in soft and hard sciences. The aforementioned fields are among the most established representatives of hard and soft sciences (Flottum et al. 2006, Hu & Wang 2014, Hyland 1999, 2002). These majors are welcomed by many students since they envisage a promising image for their future jobs and social life. Inclusion of well-studied disciplines such as applied linguistics along with less-welcomed disciplines such as mechanical engineering would offer grounds for comparison.

Following the methodological framework proposed by Connor and Moreno (2005) to establish a common platform of comparison, special effort was made to sample comparable academic journals to achieve maximum equivalence between parallel subcorpora considering crucial parameters as genre, subject matter, and the relative reputation of source journals. To identify source journals for the corpus, several distinguished journal citation reports (ISI Web of Science) for English journals and scientific research journals for Persian journals have been consulted. In addition, we also asked five university professors as specialist informants to nominate top journals in their fields of study.

Based on these sources of information, we selected six journals for each subcorpus. These were top journals on Applied Linguistics, Psychology, Computer Engineering, and Mechanical Engineering published in Iran and internationally. Despite the efforts to construct the most comparable subcorpora possible, it would be impossible to achieve perfect equivalence because the possibility could not be ruled out that the Iranian RAs might differ from the English ones in quality, prestige of the source journals, intended audiences, etc.

To select RAs for the corpus, we identified the research articles published in 2010-2015 in the selected source journals and randomly sampled five from each journal to enhance the representativeness of our subcorpora. Based on what Fløttum et al. (2006) and Hyland (1999) proposed, we removed the front matter (i.e., titles, authors, and abstracts/summaries), figures, tables, captions, footnotes, and back matter (i.e., acknowledgments, endnotes, author notes, references, and appendices) from the sampled articles to produce a corpus of over 1,059,000 words.

DATA CODING

The 240 RAs were imported into the UAM Corpus Tool (version 2.8.7), a freely available program for annotating text corpora at multiple levels, and coded with a scheme adapted from Coffin's (2009) analytic framework.

Coding process for the target citation features was done by excluding the following types of referencing from the analysis: (a) internal references pointing to other parts of the same RA, and (b) mentions of commonly known instruments (e.g., SPSS) and statistical methods (e.g., Pearson's r) unless they were acknowledged by the writers. For the purpose of counting valid citations, the following notes were taken into account: (a) where a cited proposition was attributed to a single source, it was considered as one citation, (b) where two or more sources were cited for one proposition, it was, again, counted as a single citation, (c) "when a single sentence contained multiple sources cited for distinct propositions, multiple citations were counted" (Hu & Wang 2014, p. 19), (d) whenever referencing to a proposition ran through several sentences, and "motivated by apparently the same rhetorical function" (Hu & Wang 2014, p. 19), it was counted as one citation unless the same source was presented more than once in parentheses, and (e) whenever "cited in" type of citation (i.e., second-hand citation) was identified, it was counted along with the attributed primary source as a single citation. Nonetheless, all of the above mentioned cases were taken into account for analyzing the texts based on Coffin's framework.

As identifying the target citation features needed subjective judgment and professional expertise, computer-assisted searches of the corpus could not be conducted. In the process of codification of the data based on Coffin's framework, the coding of writer stance was significantly subjective. Nevertheless, to reduce subjectivity and improve coding reliability, one can make use of some lexico-grammatical features. For example, reporting verbs are "the

clearest signals of the presence of evaluation" (Thompson & Ye 1991, p. 369). Taking previous studies as a point of departure, we identified common Persian and English reporting verbs typically used to express each type of writer stance and referred to them for initial judgment. Nominal forms of reporting verbs (e.g., assumption, confirmation, refutation) were also taken into account. Other attitudinal markers in the form of nouns (e.g., achievement, deficiency), adjectives (e.g., vital, misleading, simplistic), adverbials and modal adjuncts (e.g., persuasively, in fact, admittedly) eased the process of coding of writer stance. Despite the fact that these lexical resources were really helpful in identifying writer stance, they were used only as a general guide as Martin and White (2005, p. 52) indicated, "a given lexical item will vary its attitudinal meaning according to its co-text." For example, conjunctive 'but' can either work as the sign of distancing or contesting depending on the co-text.

To make the analysis of Persian texts more accurate based on Coffin's framework, a Ph.D. holder of Persian language literature who was also almost competent in English assisted the analysis of the Persian texts after she was fully taught the framework.

Because of the subjectivity involved in coding the citation features, it was necessary to establish coding reliability. To this end, analytic scheme and supporting materials to independently code five RAs randomly selected from the corpus for each language were used. The inter-coder agreement was 80% for English and 76% for Persian texts. To improve agreement, the coders resolved the discrepancies through discussion and standardized their interpretations of the citation features before they coded another five randomly selected RAs independently. The inter-coder agreement rose to 90% for English and 81% for Persian texts. All the analysis was done cooperatively and sometimes after discussions.

DATA ANALYSIS

As the first step in the analysis of different dimensions of citations in well-rated journals, a word count to determine the length of the corpus was run. The frequencies of the citation features were normalized by 1000 words for both the Persian and English research articles. Afterwards, the descriptive statistics for overall citation density, and the nine target citation features based on Coffin's (2009) model were investigated by discipline and language.

To test if there are significant cross-disciplinary and cross-linguistic differences in citation dimensions, citations were aggregated in each RA, and the resultant normalized frequencies were subjected to Mann-Whitney U test. To study the citation dimensions in each discipline across languages, the frequency and percentage of each part were calculated as well based on the related framework.

FINDINGS AND DISCUSSION

CITATION DENSITY

To test if there were cross-linguistics and cross-disciplinary differences in citation density, citations were aggregated in each research article, and the resultant normalized frequencies and percentage were analyzed in each discipline. Moreover, to check whether the changes were significant or not the results were subjected to Mann-Whitney U test. This nonparametric test is applied to independent samples, and can be used to determine whether the samples selected from the corpus have the same distribution or not.

TABLE 1. Citation Density in the Research Articles of four Disciplines

Items	Journals	Av. per work	Total citations	Mann-Whitney U Sig.
1	English Journals	43.14	5177	.439
2	Persian Journals	29.97	3579	

The difference is not significant at the level of (p<0.05)

The resultant data in each dimension under study were analyzed in three ways: comparison among four disciplines, comparison between each discipline, and comparison between hard and soft sciences. The initial analysis in Table 1 and 2 showed that the average use of citations in English research articles was higher than the Persian counterparts, and English researchers utilized more citations in the above-mentioned three ways of analysis. However, the Mann-Whitney U test indicated that the differences were not *significant*.

TABLE 2. Citation density in each discipline

Citation density		Av.per work	Per 1000 words	Total citations	Mann-Whitney U Sig.
Applied Linguistics	English	60.53	9.26	1816	.437
	Persian	43.4	6.72	1302	
Psychology	English	49.4	8.20	1482	.439
	Persian	32.26	5.39	1320	
Computer Eng.	English	33.6	5.03	1001	.562
	Persian	23	3.50	690	
Mechanical Eng.	English	29.26	5.12	787	.513
	Persian	21.23	3.73	637	

The difference is not significant at the level of (p<0.05)

Table 3 demonstrates that the soft science researchers took advantage of more citations to enhance the credibility of their research compared to hard science researchers. This finding is consistent with the results reported in previous studies (e.g., Hyland 1999, 2000, Thompson & Tribble 2001) that identified a higher citation density in soft disciplines than in hard ones. Soft disciplines deal with the complexity of human nature and various methods of inquiry can be employed to focus on the analysis of language, meaning, and knowledge (Habermas 1971). We are not dealing with the existence of one single objective reality outside, as in hard sciences, governed by universal laws of causality (Cohen, et al. 2007).Thus it is acceptable to assume that in soft sciences researchers need to use more citations and establish links between several different sources to enhance the importance and validity of their propositions and adopt a tone of authority.

TABLE 3. Citation Density in Soft Science and Hard Science Research Articles

Citation density		Av. per work	Total citations	Mann-Whitney U Sig.
Soft Sciences	English	54.96	3298	.436
	Persian	37.83	2270	
Hard Sciences	English	29.8	1788	.435
	Persian	22.11	1327	

The difference is not significant at the level of (p<0.05)

Regarding the factor of language, all English researchers utilized more citations, though not significantly in both hard and soft sciences, (see Table 3), which might be related to three ideas: (1) English researchers are more aware of the importance of implementing citations to

enhance their credibility, (2) Few of Persian scholars generated theories about the sciences under study worldwide and these sciences are imported to the Persian community, and (3) Even in top-ranked universities in Iran, researchers do not have complete free access to all sources they might need in the process of conducting the research. Almost related to our study, Hu and Wang (2014) investigated cross-disciplinary and cross-linguistic variations of citation density in two disciplines of applied linguistics and medicine across English and Chinese research articles. They reported no significant effect of discipline on citation density by the applied linguists and the medical researchers. However, language was found to have a significant main effect with the English research articles using citations more frequently than their Chinese counterparts

THREE DIMENSIONS OF CITATIONS

In the following section, the three dimensions of textual integration, writer stance, and author integration will be analyzed respectively.

TEXTUAL INTEGRATION

Textual integration as one of the dimensions of citation was analyzed in the four disciplines, and across the two languages. Table 4 shows the obtained information about the three dimensions of citations under study. The Mann-Whitney U test demonstrated no significant differences across the languages and disciplines in all three ways of analysis.

TABLE 4. The Frequency and Percentage of three Dimensions of citations in four Disciplines based on Coffin's framework

Dimension	Feature	English		Persian		Mann-Whitney U
		Freq.	Per.	Freq.	Per.	Sig.
Textual Integration	Insert	211	5%	168	5%	.386
	Assimilation	3518	87%	2799	88%	
	Insert+Assimilation	337	8%	236	7%	
	Total Functions	4066	100%	3203	100%	
	Acknowledge	1950	48%	1750	54%	.564
Writer Stance	Distance	1225	30%	858	26%	
	Endorse	711	18%	555	17%	
	Contest	180	4%	110	3%	
	Total	4066	100%	3273	100%	
	Integral	1435	36%	2288	71%	.419
Author Integration	Non-integral	2551	64%	915	29%	
	Total Functions	3986	100%	3203	100%	

*The difference is not significant at the level of (p<0.05)

However, a more careful look at the analysis of each discipline (see Table 5) shows that assimilation is used much higher than the two other options in Persian and English research articles. Insert issued as the least popular sub-dimension here. Though the total number of citations used in English research article is higher than its Persian equivalent, the preference of citation types used in both languages looks similar. As Table 5 demonstrates, a notable finding is the scarce use of insert and insert + assimilation in hard sciences. It would appear that the last two citation types are not very popular in hard science research articles in both languages and not making use of these types of citation is an accepted pattern of textual integration in hard sciences.

Table 5. The Frequency and Percentage of Textual Integration in each Individual Discipline

Disciplines	Feature	English		Persian		Mann-Whitney U
		Freq.	Per.	Freq.	Per.	Sig.
Applied	Insert	175	13%	146	12%	.386
	Assimilation	955	69%	872	72%	
	Insert + Assimilation	257	18%	196	16%	
	Total Functions	1387	100%	1214	100%	
	Insert	36	3%	22	2%	.248
Psychology	Assimilation	1096	91%	977	95%	
	Insert + Assimilation	67	6%	32	3%	
	Total Functions	1199	100%	1031	100%	
Computer Eng.	Insert	0	0%	0%	0%	.468
	Assimilation	849	99%	511	98%	
	Insert + Assimilation	5	1%	4	1%	
	Total Functions	854	100%	515	100%	
	Insert	0	0%	0	0%	.468
Mechanical Eng.	Assimilation	618	99%	439	99%	
	Insert + Assimilation	8	1%	4	1%	
	Total Functions	626	100%	443	100%	

*The difference is not significant at the level of (p<0.05)

As it is customary, in case of insertion the writer directly quotes a source, so quotation mark is a necessary element here; nevertheless, we scarcely witnessed quotation marks in hard sciences' research articles. Table 7 gives a full account of frequency and percentage of three Dimensions in hard science research articles. Hyland (2000) reported a complete absence of direct quotations in the hard sciences. Hu and Wang (2014) reported no presence of insertion citation type in their study in hard sciences across both languages. In Solar-Monreal and Gil-Salom's (2011) research, only 7% of citations in English Ph.D. theses of computing and 0.02 percent of Spanish Ph.D. theses of computing were direct quotations. Assimilation type of citations which ranked first in all three ways of analysis is dialogically contractive. The more frequent use of assimilation in English research articles might be attributed to the higher citation density of the English subcorpora.

TABLE 6. The Frequency and Percentage of citation dimensions based on Coffin's framework in Soft Science Research Articles

Dimension	Feature	English		Persian		Mann-Whitney U
		Freq.	Per.	Freq.	Per.	Sig.
Textual Integration	Insert	211	8%	168	8%	.564
	Assimilation	2051	79%	1849	82%	
	Insert+Assimilation	324	13%	228	10%	
	Total Functions	2586	100%	2245	100%	
	Acknowledge	1267	49%	1172	52%	.602
Writer Stance	Distance	715	27%	574	26%	
	Endorse	483	19%	415	18%	
	Contest	121	5%	84	4%	
	Total	2586	100%	2245	100%	
	Integral	948	38%	1588	71%	.827
Author Integration	Non-integral	1558	62%	657	29%	
	Total Functions	2506	100%	2245	100%	

*The difference is not significant at the level of (p<0.05)

The following examples illustrate how textual integration is used in research articles.

INSERT

'Insertion' citations are usually employed to gain advantage from authoritative viewpoints as support for the citing writer's own position and at the same time emphasize on "human agency in knowledge construction" (Hu & Wang 2014, p. 22).

e.g. As Richards and Lockhart (2006) argue, "group activities need a goal, procedures and a time frame to accomplish them, if they are to be focused and productive" (p. 153).

مثال: بر اساس دید شیعه "تأویل در قرآن وجود دارد و این در خالی است که برخی استعاره در قرآن را نمی پذیرند"
(رضوانی، 241- 225: 1389)

INSERT + ASSIMILATION

'Insertion+assimilation' citations are dialogically expansive. They place the other scholars' point of views somewhere in between of their own proposition. These types of citations are not treated as authoritative claims or established facts or truth as they leave the propositions open to possible counter argument.

e.g. In doing this, we aimed to uncover "what can and cannot be said and done" (Bawarshi, 2006, p. 244) within the particular genre as well as a way of advising doctoral students as to what counts as 'best examples' of doctoral writing in these areas of study

مثال: استعاره ها مشخصه های شناختی و کاربرد شناختی زیر را دارند. "قراردادی هستند" (لاکوف و جانسون 156:
فرهنگ وابسته هستند و نمودی از چیزی انتزاعی تر می باشند (پانتر و ثرنبرگ 2003;.1980)

ASSIMILATION

Contrary to what we identified in 'insertion' and 'insertion+assimilation' citations, assimilation citations increase dialogic contraction. An 'assimilation' citation integrates a cited proposition inconspicuously into the citing text and assimilates it with the citing writer's voice to indicate that the cited propositions have to be perceived as a well-established fact. It makes it more difficult to advance an alternative view, and emphasizes the personal investment in the proposition (White 2003, Coffin 2009).

e.g. This exploratory study employed a mixed-method sequential approach to data collection and analysis (Tashakkori & Teddie, 1998; Tashakkori, 2003).

مثال: در قالب اصول گرایس استعاره شکستن اصل راستگویی است در حالی که در قالب رهیافت مرتبطی نوعی صحبت
نامربوط محسوب می شود (ویلسون 1990؛ لوینسون 1983).

TABLE 7. The Frequency and percentage of three Dimensions in Hard Science Research Articles

Dimension	Feature	English		Persian		**Mann-Whitney U Sig.**
		Freq.	Per.	Freq.	Per.	
Textual Integration	Insert	0	0	0	0	.468
	Assimilation	1467	99%	950	99%	
	Insert+Assimilation	13	1%	8	1%	
	Total Functions	1480	100%	958	100%	
	Acknowledge	683	46%	578	56%	.175
Writer Stance	Distance	510	35%	315	31%	
	Endorse	228	15%	109	10%	
	Contest	59	4%	26	3%	

	Total	1480	100%	1028	100%	
	Integral	487	33%	700	73%	.274
Author Integration	Non-integral	993	67%	258	27%	
	Total Functions	1480	100%	958	100%	
Writer Stance	Distance	510	35%	315	31%	

The difference is not significant at the level of (p<0.05)

WRITER STANCE

The Mann-Whitney U test run on writer stance in all three ways of analysis yielded a nonsignificant effect across disciplines and languages. A closer look at the analysis of each discipline in Table 8 showed that almost half of the citations used in English and Persian applied linguistics are 'acknowledge'. It would appear that researchers preferred to take a neutral position and made 'acknowledge' (the occurrence of 678, 49% in English versus the occurrence of 593, and 49% in Persian) as their first priority over the other options. 'Distance' (the occurrence of 393, 28% in English versus the occurrence of 342, and 28% in Persian) through which writers avoid being held responsible for the reliability of the cited source seemed to be the second choice for both English and Persian researches in applied linguistics. 'Contest' (the occurrence of 79, 6% in English versus the occurrence of 65, and 5% in Persian) being the most challenging dimension was not favored by both Persian and English. The choices of English and Persian psychology researchers were very similar to researchers of applied linguistics. 'Acknowledge' (the occurrence of 589, 50% in English versus the occurrence of 579, and 56% in Persian) ranked first among the other sub-dimensions. 'Distance' (the occurrence of 322, 27% in English versus the occurrence of 232, and 23% in Persian) and 'endorse' (the occurrence of 246, 20% in English versus the occurrence of 201, and 19% in Persian) were the second and third choices. It would appear that the researchers of both languages agreed on keeping the use of 'contest' to a minimum.

TABLE 8. Frequency of Writer Stance in each Individual Discipline

Disciplines	Feature	English		Persian		**Mann-Whitney U**
		No.	Per.	No.	Per.	**Sig.**
Applied	Acknowledge	678	49%	593	49%	.602
	Distance	393	28%	342	28%	
	Endorse	237	17%	214	18%	
	Contest	79	6%	65	5%	
	Total	1387	100%	1214	100%	
	Acknowledge	589	50%	579	56%	.465
Psychology	Distance	322	27%	232	23%	
	Endorse	246	20%	201	19%	
	Contest	42	3%	19	2%	
	Total	1199	100%	1031	100%	
Computer Eng.	Acknowledge	381	45%	294	57%	.530
	Distance	294	34%	155	30%	
	Endorse	141	17%	53	10%	
	Contest	38	4%	13	3%	
	Total	854	100%	515	100%	
	Acknowledge	302	48%	214	48%	.465
Mechanical Eng.	Distance	216	35%	160	36%	
	Endorse	87	14%	56	13%	
	Contest	21	3%	13	3%	
	Total	626	100%	443	100%	

The difference is not significant at the level of (p<0.05)

Applied linguistics and psychology researchers almost employed similar patterns of citations which might be related to the nature of the disciplines and their origin. In soft sciences we are not dealing with the same positivist epistemologies in the hard sciences where the authority of the individual gets subordinated to the authority of the text, and facts are meant to 'speak for themselves' (Hyland 2002). They literally tend to be more cautious about their findings. Writers in the soft fields cannot, report their research with the same confidence of shared assumptions. They must rely much more on focusing readers on the claim-making negotiations of the discourse community, the arguments themselves, rather than relatively unmediated real-world phenomena. This means that arguments have to be expressed more cautiously (Hyland 2002). This might be due to applying dialogically expansive type of citations. Both acknowledge and distance citations allow for alternative perspectives and voices, albeit to varying extents. On the other hand, it seems that in applying these types of citations Persian researchers almost copied the same rules and standard patterns of writing research articles to validate their work and be able to have a say in international community of scholars. The same choices of acknowledge and contest were also adopted by the researchers of English and Persian computer and mechanical engineering. Even though arguments and propositions in the hard sciences are formulated in a highly standardized code, and they are dealing with tangible and single reality outside, they also care for the dialogically expansive nature of the above-mentioned dimensions and they allow alternative perspectives and voices. In line with Hu and Wang's (2014) findings, acknowledge was the most popular and contest was the least favorable citation types in disciplines under study. However, they reported that English researchers used acknowledge strategy significantly more than Chinese whereas the Persian researchers seem to adopt the same rules and patterns of English research writings. The following examples show how researchers presented different dimensions of writer stance.

ACKNOWLEDGE

The following extracts, representing acknowledge, demonstrate how researchers in our corpus showed their familiarity with the relevant knowledge claims or literature without passing any evaluative judgment. The neutral stance adopted by the writers is achieved through verbs such as 'described' and 'investigated' which showed no "authorial intrusion" and convey an impartial reporting voice thus opening up the dialogic space (Coffin 2009, p. 180).

e.g. This sex difference was described with both measures of sexual arousal used in the present research: genital response (Bossio, Suschinsky, Puts, & Chivers, 2014; Chivers et al., 2004; Chivers, Roy, Grimbos, Cantor, & Seto, 2014; Chivers et al., 2007) and pupil dilation while viewing sexual stimuli (Rieger et al., 2015; Rieger & SavinWilliams, 2012a).

مثال: *Wiefferink* و همکاران (2013) ادراک هیجانی را روی 52 کودک شنوا و 57 کودک کم شنوای با کاشت حلزون 2/5 تا 5 ساله در دو بعد تشخیص هیجان و اختیار کردن هیجان در موقعیت های اجتماعی مورد بررسی قرار دادند.

DISTANCE

Dialogic expansion is also achieved through the use of distance. Writers deploy 'distance' citations to distance themselves from a source, taking no responsibility for its reliability.

e.g. we certainly do not assume that "human nature" is intrinsically good in some countries and evil in others (Henrich et al., 2005, 2010).

مثال: اگرچه عملکرد کودک در این سن موثر و گیراست اما اعتقاد بر این است که تمایز عاطفی حالات متفاوت هیجانات چهره ای بطور کامل تا حدود سن هفت ماهگی ادراک نمی شود (7).

ENDORSE

In the present corpus, writers typically used 'endorse' citations to present cited propositions as true, authoritative, and reliable knowledge claims through the use of reporting verbs such as show or adverbs such as correctly. This dialogically contractive strategy increases the interpersonal cost of advancing an alternative.

e.g. Similarly, Brosig-Koch, Helbach, Ockenfels, and Weimann (2011) have shown that people in the former East Germany shaped by a history of communism displayed less solidarity behavior in a solidarity game compared with their counterparts in the former West Germany that was spared from communism.

مثال: این یافته ها به درستی منطبق با این فرضیه است که کودکان در سنین کم تمایل دارند که غمگینی را بعنوان یک طبقه و دسته بندی اولیه به کار برند تا زمانی که یاد می گیرند از مشخصه های متمایز کننده برای بیان حالات مختلف هیجانی منفی استفاده کنند (21).

CONTEST

The following extracts exemplify how writers in the present subcorpora took critical stance by pointing out the limitations of the cited studies or casting doubts on the conclusions of existing studies.

e.g. Another limitation is that discussed findings are drawn from experiments in which participants passively view relatively short sexual stimuli with restricted intensity. Recent research, however, suggests that longer (10-min) sexual stimuli do not affect sex differences in the specificity of genital response, and neither does the apparatus used to assess genital vasocongestion (Huberman & Chivers, 2015).

مثال: اگرچه نامحتمل به نظر می رسد که سختی بیان این دلایل تنها علت این مساله می باشد که این شنوا دلایل اجتماعی کمتری برای مخفی کردن هیجاناتشان به کار می برند (30).

AUTHOR INTEGRATION

The Mann-Whitney U test on author integration in three ways of analysis identified non-significant effect. However, a closer look at the data in Table 9 showed that in all disciplines Persian researchers preferred integral citations over the non-integral ones.

TABLE 9. The Frequency and Percentage of Author Integration in each Individual Discipline

Disciplines	Feature	English		Persian		Mann-Whitney U
		No.	Per.	No.	Per.	Sig.
Applied	Integral	548	40%	873	72%	.827
	Non-integral	839	60%	341	28%	
	Total Functions	1387	100%	1214	100%	
	Integral	400	36%	715	69%	.513
Psychology	Non-integral	719	64%	316	31%	
	Total Functions	1199	100%	1031	100%	

Computer Eng.	Integral	278	33%	384	75%	.275
	Non-integral	576	67%	131	25%	
	Total Functions	854	100%	515	100%	
	Integral	209	33%	316	71%	.513
Mechanical Eng.	Non-integral	417	67%	127	29%	
	Total Functions	626	100%	443	100%	

*The difference is not significant at the level of (p<0.05)

Our findings are totally in line with Shooshtari and Jalilifar's (2010) research findings. In their study the percentage of non-integral citations was higher in international articles compared to local articles which happened to be published in Iran. In another study conducted by Kamyabi, Ghonsooly, and Mahdavi (2014) International ELT Scopus journal took more advantage of non-integral citations while Iranian ELT Scopus journals utilized integral citations more frequently. Integral and non-integral citations can be drawn on as resources for dialogic engagement. Integrating a cited author into the citing sentence gives more prominence to the author and contributes to a more personal style of persuasion. Persian researcher writers may make use of integral citations to stress the agents of research rather than acknowledge the works. This seems to result from the local writers' culture. Persian culture seems to be more people oriented than performance oriented. They value people more than their achievements, contrary to the Western tendency to credit the works irrespective of who the researcher is. The more frequent use of non-integral citation comparing to the integral ones in English research articles of all disciplines indicates researchers' preference for "making information prominent by emphasizing the reported research rather than the researcher" (Shooshtari & Jalilifar 2010, p. 17).

INTEGRAL

As illustrated by the following examples, integrating a cited author into the citing sentence gives more prominence, notability, and visibility to the author, and contributes a more personal style of persuasion.

e.g. For instance, Judge et al. (1995) found only a 1% difference between executives' self-reported salary and archival records.

مثال: در تحقیق دایک (2005) برای بررسی وجود تاخیر پایدار در اکتساب توانایی ادراک و بازشناسی هیجانی در نتیجه ناتوانی های حسی، دو گروه از کودکان شش تا یازده سال ارزیابی شد.

NON-INTEGRAL

By contrast, as the following extracts exemplify, non-integral citations are conducive to give greater emphasis to the cited propositions, contribute to an impersonal tone, and mask human agency in making and presenting knowledge by placing the author in a parenthetical position or behind a superscript number.

e.g. In their study, the researchers created an online social network site in which badging was used to motivate students to complete optional online multiple-choice tests with the purpose of improving their learning through their completion (Roediger & Karpicke, 2006).

مثال: به طور کلی دو راه اصلی برای انتخاب پارامترهای فیلترهای گابور وجود دارد: روش با نظارت و روش بدو ن نظارت [7].

CONCLUSION

Citation is an important feature of academic writing. Citation practice allows a writer to adopt a tone of authority and provides justification, validity and credibility for the arguments he or she proposed. Although the findings of the present study have not identified significant differences among the disciplines and languages, it has shown some degrees of differences regarding the different dimensions of citations: Firstly, the average citation use in English research articles has been higher than their Persian equivalents in all three ways of data analysis. Moreover, soft sciences have tended to take more advantage of citation use to enhance the credibility of their research more than hard sciences. Secondly, the Persian and English researchers in soft and hard sciences have assumed a shared standard about using writer stance. Both languages in all disciplines have preferred dialogically expansive strategy by which alternative perspectives and voices are allowed. Contrary to the general culture of Taarof, an Iranian form of civility emphasizing both deference and social rank similar to the Chinese art of etiquette, Persian researchers did use this type of citation almost as much as the English researchers. It would appear that Persian scholars have fully grasped and employed the standards and patterns of writing academic articles concerning writer stance. They are aware that in order to please the editors and gatekeepers of top-ranked international journals they are required to use critical citations. However, Hu and Wang (2014) reported that Chinese scholars used contest significantly fewer than their English equivalent counterparts. It would appear that Chinese could not get rid of the ropes of Chinese art of etiquette, or simply they did not want to due to cultural bounds. Thirdly, insert has been used differently in hard and soft sciences. In hard sciences the proposition is more important than who really mentions the idea but in soft sciences they value the person who claims the idea more, so the number of insert citations was much higher in the two disciplines of applied linguistics and psychology. Fourthly, Persian researchers have preferred integral citations over the non-integral ones due to cultural factors. Persian culture seems to be more people oriented than performance oriented.

The findings of this research have clear implications for writers, readers, and novice researchers. It is pedagogically important to raise novice writer's awareness of cross-disciplinary and cross-linguistic differences in citation practices to facilitate interdisciplinary and intercultural understanding. Citation patterns can give novice researchers opportunities in academic writing classes to extend their awareness and understanding of the importance of these features in academic writing and it can help learners construct their own knowledge. The framework used in this study can help novice writers deepen their viewpoints towards citations and develop the range of citation types that they might utilize in their writing. It helps them examine the wider context of situation and become aware of the different functions and types of citations within the text. They could use a wide range of citation types in their academic writing and add to the quality of their articles in terms of authenticity and credibility.

The typology of citations outlined in this study can be utilized for developing classroom activities, and student researchers will be able to develop a fuller understanding of the cultural and linguistic role of citation in their field of study. Classroom activities, such as exercises in which students are given clear examples of different rhetorical functions of citation and asked to match them with the corresponding function, or text analysis tasks where students discuss the writer's intentions behind citation use in original texts from top-ranked journals would be beneficial. Activities can focus on phrases for expressing different rhetorical functions of

citations, such as dialogically expansive or contractive citations, evaluative adjectives and adverbs or types of reporting verbs used for different functions in the students' discipline.

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