

# **A Comparative Study of Metaphorical Markers in Academic Research Articles**

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## **Abstract**

Although the use of metaphorical markers in corpora has been studied to a large extent (e.g., Glucksberg & Keysar 1993; Skorczynska & Deignan, 2006; Sznjder, 2005), no attempt—to the best of the researchers' knowledge—has been made to describe metaphorical marking in a comparative analysis of 2 corpora in both national and international journals of applied linguistics in Iran. The gap envisaged has prompted the researchers to formulate the hypothesis that metaphorical marking may vary in different registers, as metaphor performs a variety of discourse functions. The present study, thus, aimed at showing the possible differences or similarities between published articles in Iranian and international journals of applied linguistics with regard to metaphorical markers, as classified and defined by Goatly (1997), in a data-driven study of articles with the Introduction, Method, Result, and Discussion (IMRD) sections. In order to identify the possible differences or similarities among the journals, the frequency and the percentage of each marker in each journal were obtained. The results indicated that: (1) All the markers, more or less, were used in both groups of journals, (2) the frequencies of explicit markers, superordinate terms, and misperception terms were less than other metaphorical markers, and (3) the frequencies of using markers in the international journals were more than the Iranian journals, although they were used in similar ways in both groups of journals.

**Keywords:** Metaphorical markers; Iranian and international research articles; Applied linguistics

## 1. Introduction

Over the last two decades, text analysis has been one of the most polemic issues which has had its focus on such issues as discourse markers and meta-discourse markers. One of the recently addressed areas which seem to have a direct relationship with the above mentioned areas is metaphorical markers which have their roots in cognitive linguistics and conceptual metaphor theory, in particular. (Cameron, 1999; Charteris-Black, 2005; Charteris-Black & Ennis, 2001; Smith, 1995; White, 2003). Metaphor markers studies are much in line with studies carried out in discourse and pragmalinguistics. Goatly (1997) defines metaphorical markers as “the words and phrases occurring in the environment of a metaphor’s vehicle term, or a unit of discourse that unconventionally refer to or colligate with the topic of a metaphor on the basis of similarity, matching or analogy” (p. 172). Over the last two decades, the study of markers has been an area of concern in text analysis in general and academic research articles (RAs) in particular (e.g., Akkaya, 2007; Arguedas, 2009; Borderia & Chiu, 2002; Choi, 2007; Cuenca, 2003; Erman, 2001; Escalera, 2009; Eslami-Rasekh & Eslami-Rasekh, 2007; Feng, 2008; Fraser, 1990, 1993, 1996, 1997; Fraser, 2005a,b; Fraser, 2009; Goatly, 1997; Hinkel, 2003; Jalilifar, 2008; Norrick, 2001, 2009; Park, 2003; Shokouhi & Kipka, 2003; Sznajder, 2005; Wang & Tsai, 2005, 2007).

Even though metaphor research has a long-standing tradition, the call for a change from linguistic to cognitive approach has been relatively recent (Cameron, 1999). And, attention seems to have broadened to other areas such as the conceptual metaphor theory and the cognitive metaphor markers. Accordingly, the use of metaphorical markers, understood as linguistic expressions signalling a particular metaphor, is a relatively unexplored area, especially in terms of a specific type of discourse. Metaphor context, together with the social context in which metaphor is produced, may influence its interpretation to such an extent that the lack of contextual and contextual clues could lead to metaphor misinterpretation. Therefore, words and phrases used in the context of the vehicle term for the purpose of metaphor marking or signalling seem to be related to the reader’s processing effort. The less explicit metaphor marking is, the greater the processing effort would be. Glucksberg and Keysar (1993) have also argued that metaphorical markers, or hedges in their terminology, could reduce perceived metaphoricity because they diminish the degree of implicature elaboration required by anticipating the use of metaphor on the text surface.

In text analysis, cohesion plays an important role in the text surface. Metaphor markers as some form of cohesive elements in turn can lead to the organization of text surface to a great extent. Such a treatment has led to a plethora of studies in this regard (e.g., Cameron & Deignan, 2003; Goatly, 1997; Henderson, 1998, 2000; Koller, 2004; Kövecses, 2005; Lindstromberg, 1991; Low, 2005;

McCloskey,1990; Meyer et al,1997;Sznajder,2005).Most of these studies have analyzed metaphor markers from three main dimensions: markers categories, markers frequencies, and multiple marking patterns. The results, too, vary from the use of the same markers in the same genres (Sznajder, 2005) to various categorization of markers in different genres (Goatly, 1997).Part of the variation as some studies show and will be testified later in this study are due to the nature of markers categories on the one hand, and the linguistic functions of such markers on the other. One further clear line of research on metaphor markers is their emphasis on the role of such cohesive devices in the text understanding, with very little if any on considering the position metaphorical markers enjoy within an academic genre. Indeed, very little can be found on how the use and functions of these markers varies within an academic genre. Though the use of markers in general and metaphor markers in particular has been the focus of study within various genres and domains such as cross-linguistic study of markers, typological study of markers, markers at variant sociolinguistic contexts, markers in metadiscourse markers, discourse coherence and relevance theory, markers and rhetorical relations, multi-functionality of markers, markers in different pedagogical setting, universality of markers, and finally, markers in different mode of language use. The focus of this study will be on the status of metaphor markers within an academic genre: RAs. Indeed, the growing interest in the study of genre analysis, on the one hand, and the significance of the autopsy of the academic genre in guiding nonnative writers in producing more plausible texts in English, on the other hand, prompted the present researchers to carry out this study.

Having this in mind and considering the fact that one can find few, if any, studies in Iranian contexts, especially in academic genre on metaphor markers, this study was an attempt to investigate these cohesive elements in RAs published in both local and international journals. The following research questions, then, guided this study:

1. What kinds of metaphorical markers are used by writers in Iranian and international journals in the realm of applied linguistics?
2. Can any differences be found in the articles written by Iranian and international writers with regard to employing metaphorical markers in their writings?

## 2. Methodology

### 2.1 Theoretical Framework

The theoretical framework of this study was based on Goatly's (1997) definition of metaphor, its typology, and functional varieties. His approach to metaphor profoundly draws upon Halliday's (1994) vision of contexts and socially determined purposes. Goatly's model of metaphorical markers was used in this study as the reference model. This is one of the most detailed models currently available. It, however, seems to be complicated that are not always equally consistent. For instance, explicit markers, intensifiers, hedges, downtoners, or symbolism terms were probably discriminated on the functional basis, owing to the effects exerted on the metaphor marked. Other categories, such as semantic metalanguage, mimetic terms, perceptual processes, misperception terms, or cognitive processes have more in common with a semantic rather than with a functional categorization. After all, modals, conditional, or copular similes are evidently grammatical categories. Below is a detailed table of metaphorical markers, suggested by Goatly (1997):

Table 1 *Metaphorical Markers* (Goatly, 1997, pp. 174 & 175)

Markers Categories	Metaphorical Markers
1. Explicit Markers	metaphor/-ically, figurative/-ly, trope
2. Intensifiers	literally, really, actually, in fact, simply, fairly, just, absolutely, fully, completely, quite, utterly
3. Hedges and Downtoners	in a/one way, a bit of, half-..., practically, almost, not exactly, not so much... as...,...if not
4. Semantic Metalanguage	in both/more than one sense/s, mean(ing), import
5. Mimetic Terms	image, likeness, picture, parody, caricature, modal, plan, effigy,
6. Symbolism Terms	imitation artificial, mock
7. Superordinate Terms	symbol(-ic/-ically), sign, type, token, instance, example (some)(curious, strange, odd, peculiar, special), sort of, kind of
8. Copular Similes	like, as
9. Precision Similes	katerial verbs + like x, they y of a x, y 's x, noun- adj, the x equivalent of
10. Clausal Similes	as if, as though
11. Perceptual Processes	seemed, sounded, looked, felt, tasted, + like/as though, as if
12. Misperception Terms	delusion, illusion, hallucination, mirage, phantom, fantasy, unreal believe, think, regard, unbelievable, incredible
13. Cognitive Processes	say, call, refer to, swear
14. Verbal Processes	“ ” ! white space
15. So to Speak	could say, might say
16. Orthography	must, certainly, surly, would, probable/ly, may, might, could, possible/-ly, perhaps, impossible/-bility
17. Modals + Verbal Processes	If...could, would, might, imagine, suppose
18. Modals	
19. Conditionals	
20. As it were	

## 2.2 *The Corpus*

The corpus consisted of 120 articles (60 from well-established Iranian and 60 from international journals from four major journals of applied linguistics). On the international side, English for academic purposes (EAP), English Language Teaching (ELT), Journal of Pragmatics, and TESOL Quarterly were the journals under investigation; on the national side, the articles were selected from Iranian Journal of Applied Linguistics (IJAL), Teaching English Language and Literature (TELL), Pazhuhesh-e Zabanha-ye Khareji of the Faculty of Foreign Languages of Tehran University (PZK), and Journal of Social Sciences and Humanities of Shiraz University (SSHSU). Their availability was the rationale for their selection. The articles were selected on a random basis from the established journals in the above fields of study. All the articles chosen for this study were published between 2000 and 2010. The criteria for the selection of the articles beside their availability were:

- The selected articles followed the IMRD structure.
- They were published in some of the major subfields of applied linguistics.
- They were easily accessible in the Internet databases.
- They were complete RAs with a length of 2500-4000 words.

## 2.3 *Procedure for Data Collection and Analysis*

Sixty articles from international journals and 60 articles from Iranian journals from four subdisciplines of applied linguistics were selected at random, taking care that the articles enjoyed the IMRD structures. Each 15 articles represented one discipline in one subdiscipline to ensure that they were equal quantitatively. Care was taken to choose an equal number of articles from each subdiscipline. So, the criteria for the selection of articles were the fields of study, rather than the journals per se, especially for the local journals. The articles were scanned and word count was run on; then, the metaphorical markers were detected and counted by at least two raters. Accordingly, the data were classified and prepared for the data analysis.

## 3. Results

To achieve the aims of the study, attempt was made to show how metaphorical markers, as cohesive elements, were used by the Iranian writers in comparison with the international ones. In the analysis, the data were analyzed from two dimensions: metaphorical marker frequencies and multiple marking patterns, the results of which are demonstrated below:

### 3.1 Types of Metaphors Markers Used in the Corpus

All the markers more or less were used in both corpora. The following figures and tables related to the use of individual markers confirm this claim. The corpus of the international articles employed not only a wider range of marker types, but also a greater number of individual markers than the corpus of the Iranian articles. The frequencies of Markers 8 and 18 (as demonstrated in Figure 1 below) in the two corpora are remarkably high according to Tables 3.1 and 3.2, with the highest value being 34%.

In addition to the low frequency of the metaphorical markers as a shared feature of both corpora, certain significant differences in the individual use of the metaphorical markers were observed. The markers with the highest frequency in the Iranian journals were copular similes (Marker 8) and modals (Marker 18). This differed in some ways with the data from the international journals where modals were the most frequent marker with a higher percentage. Compared to other markers, Marker 8 had the second highest frequency in both corpora.

Explicit markers (Marker 1), verbs expressing perceptual processes (Marker 11), and misperception terms (Marker 12) in both journals were used rarely. Markers expressing verbal processes (Marker 14; *say, call, refer to*) often signalled metaphors in both corpora of the international and Iranian articles, for instance, when a metaphor was strongly marked as someone else's quotation. For example:

**Example # 1:** Let us now **look** at some **examples** of what Schwenter and Traugott **refer to as** fact3, that is, the adverb “that signals that what follows is a stronger argument than what precedes, with respect to the speaker's rhetorical purpose at that point in the discourse” (2000, 12) *Journal of Pragmatics*, 2004, 36, 1788.

**Example # 2:** They **seem** more eager to employ personal authorial references in what Bunton (1999) calls “**immediate**” and “**local metatextual references**,” that is, references to segments of text that immediately follow the comment or that appear within the same section. (Molino, A.) *Journal of English for Academic Purposes*, (2010), 7.

**Example # 3:** If we **look** at other definitions presented in this connection by linguists, it will become clear that they follow, more or less, Lyons' authoritative description. **For instance**, Comrie (1985, p. 9) describes tense thus, “... tense is grammaticalized expression of location in time.” (Markers 6, 11, & 19). *Journal of Social Sciences & Humanities of Shiraz University*, 2006, 23(1), SER. 46.

Intensifiers (Marker 2), in turn, may allow journalists not only to place adequate emphasis, but also to reinforce metaphor's effect (see the following examples):

**Example # 4:** The pattern for frequency of alerter is far more pronounced for Form 2 than Form 6, with more than triple for the former and **just** under double for the

latter with hearer dominant situations. (Rose, K.R.) *Journal of Pragmatics*, 2009, 41, 2353.

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**Example # 5:** Dyvik's approach assumes that words which are semantically close and belong to the same lexical set share a number of translations. **For example, actually** and **in fact** share a number of translations, as is shown by our corpus searches. *Journal of Pragmatics*, 2004, 36, 1787

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On the other hand, symbolic terms could help condense information into meaningful metaphors. For example:

**Example # 6:** Note that because more than one **token** of each of these features can occur in a single request, averages can in principle exceed one per request, although this happens only in the case of alerter and dominance, and even then **just** barely. (Rose, K. R.) *Journal of Pragmatics*, 2009, 41, 2353.

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**Example # 7:** This is not **to say** that early reading researchers were not concerned about all aspects of the reading process or that there were no scholarly pieces from which a **model** could be deduced **fairly** easily. (Markers 2, 5, & 14). *IJAL*, 2003, 6(1), 102.

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Moreover, the markers from the category of modals (Marker 18: *may, might, could, probable, possible*, etc.) seem to reflect the tentative language typically used in the results or discussion sections of RAs.

**Example # 8:** Sound changes mainly are caused by listener-based reinterpretation. This in turn **may** arise in several ways, **for example**, the actual phonetic string **may simply** misperceive the utterance due to speaker variation on a continuum from hyper articulated listener oriented clear speech to reduced hypoarticulated casual speech. (Markers 2, 6, & 18). *Pazhuhesh-e Zabanha-ye Khareji*, Spring 2010, 56(Special Issue, English,) 5-24.

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**Example # 9:** Very frequently, students' readings in a foreign language **seem** to read with less understanding than one **might** expect them to, and read considerable slowly. (Markers 11 & 18). *IJAL*, 2003, 6(1), 102.

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Sometime, we can find different kinds of metaphorical markers in a paragraph used by writers. The following examples reveal how metaphorical markers were used by international and Iranian journals differently:

**Example # 10:** Studies in Black English have properly emphasized oral language, but have tended to focus on constructions in isolation. Sometimes these isolates are phonological, **as** in studies which seek to generalize phonological rules from individual lexical items; sometimes these isolates are morphological, **as, for example**, in studies which identify distinct auxiliary or genitive constructions; and sometimes they are historical, **as** illustrated by recent investigations of decartelization. However, **as** important **as** these different **types of** investigation are,

their incompleteness occurs **exactly** at the point where pedagogical needs are often the greatest. Educators need a syntactic **model** which will synthesize these isolates and relate spoken language and written language. *TESOL Quarterly*, June 1971, 5(2).

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**Example # 11:** Toward the end of a class session at the beginning of the course, when **almost** all members of the class were present, the 20 target vocabulary items were briefly written on the book one at a time. *IJAL*, March 2007, 10(1).

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**Example # 12:** The third source of efficacy is **called** *social persuasion* which **refers** to the verbal encouragement people receive from others. **If** the person who provides verbal persuasion is dependable, individuals' self-efficacy tends to increase. *Physiological and emotional states* constitute the last source of efficacy and pertain to people's physical and affective condition during task completion. **For instance, feelings** of relaxation are **signals** of self-assurance and, therefore, enhance self-efficacy, while a racing heart beat or high blood pressure **can** lead to low efficacy **beliefs**. *Pazhuhesh-e Zabanha-ye Khareji*, Spring 2010, 56.

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**Example # 13:** The theory of radial categories comes with a characterization of **possible link types**. In the case of polysemy, the link **types** are the **types** of relations linking the **senses** of the word. In general, some of the links **may** involve shared information, some **may** involve relation between a general and a specific case, and some **may** be **metaphoric** . . . . But, overall, there is only a small number of **types of** relations between **senses** of words . . . ." *Pazhuhesh-e Zabanha-ye Khareji*, Spring 2010, 56.

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**Example # 14:** The third is rather more specific—the audience for which the text is produced. This **may** be conflated with the second factor (cf. Burgess, 2002), but it can be distinguished, at least logically. **If** Ukrainians or Scandinavians **always** write in a certain way they **may** do so because of some inherent feature of their scientific culture, but **if** they write **in one way** for a local academic audience in their own language and in another for an international they presumably do so because they perceive different rhetoric or styles **as** appropriate for the two audiences. (Shaw, P.). *Journal of English for Academic Purposes*, 2003, 2, 343-357.

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**Example # 15:** The research literature has tended to treat a complaint **as** the first part in an adjacency pair, pairs of actions in which **if** one speaker does (or more properly, **if** a speaker's turn can be heard or recognized **as** doing) an initial action of a certain **type**, then the other (i.e., the recipient) is expected to respond with an action paired with that first (**type of**) action. So a question **should** be answered, a greeting returned, a request **should** be granted or rejected, an invitation accepted or declined and so on. Likewise, complaint sequences have been understood in terms of an initial action, the complaint, making relevant a specific **type of** paired action, one which either affiliates or disaffiliates with the complaint—the positive, affiliative



response being ‘preferred’ over negative or disaffiliative responses, which are dispreferred (**examples** in the literature of complaint sequences treated as adjacency pairs include Dersley & Wootton, 2000; Drew, 1998; Pomerantz, 1984, p. 63; Schegloff, 1988, p. 122). An **example** which **might seem** to illustrate the character of complaints as initiating adjacency pairs is the following, from a telephone conversation between two women, one of whom (Robbie) has recently started teaching at a school at which Lesley has taught in the past. (Drew, P. & Curl, T.). *Journal of Pragmatics*, 2009, 41, 2400-2414.

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**Example # 16:** When describing sets or entities in terms of a two-valued variable, one **may** choose either value to do the job. **For instance**, the success of a medical treatment **may** be described in terms of its survival rate (i.e., in a positive frame) or in terms of its mortality rate (the negative frame). Psychological studies have shown that the frame, or profile as we **prefer to call** it, influences the evaluations of readers: positively profiled objects are evaluated more positively than negatively profiled ones. This article analyzes the communicative mechanisms behind profile production and interpretation. It suggests two pragmatic inference rules to be at work: a heuristic **called** Argumentative Orientation, and a Manner implicature based on markedness differences. (Holleman, B.C. & Pander-Maat, H.L.W.). *Journal of Pragmatics*, 2009, 41, 2204-2221.

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**Example # 17:** What is needed is, **perhaps**, to investigate the problem at hand using different **kinds of** tools, that is, qualitative techniques, as some researchers have long expressed a desire for. *IJAL*, September 2008, 11(2).

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### 3.2 Multiple Marking Patterns

The analysis of metaphorical material from the corpora reveals that in both corpora, more than one metaphorical marker was used in order to signal a metaphor. In other words, in our analysis of markers we found that patterns of multiple marking, and double marking were used more than triple variations and the cases of four-fold markings were used rarely in the two corpora. The following examples reveal how markers have been used:

**Example # 18:** Some critics claim that Pinter is **absolutely** absurd as they see the first side; while, on the contrary, some other critics repudiate Pinter as being an absurdist writer because they see the other side. **For instance**, Philip Hope-Wallace (1986) regards Pinter’s works as **absolutely** absurd, **saying** that “These Pinter pieces, variously amusing according to taste, and often fraught with that fashionable commodity menace, are not **really** ‘about’ anything” (197). *Journal of Social Sciences & Humanities of Shiraz University*, Spring 2006, 23(1), SER. 46.

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**Example # 19:** The discursive practices of professional academic writers are too multi-faceted to be labeled **simply** as ‘critical analysis,’ yet the terms ‘critical

analysis,' 'a critical approach,' and 'critical thinking' are frequently used to characterize the approach required in undergraduate writing and in student learning generally. While critical analysis is arguably not the same as the socially and rhetorically motivated discursive practices of a discipline, it seems that there are distinct commonalities which are the result of viewing disciplinary knowledge as constructed and contestable. (Woodward-Kron, R.) *Journal of English for Academic Purposes*, 2002, 1, 122.

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**Example # 20:** Regular variation also points to the fact that distinctive semantic information is in both cases conceptually **just as** implicit and that these traits should thus not be characterized **as** subordinate in actual language use. Activating common or different conceptual traits **seems** instead to be the regular product of a contextual construal. (Storjohann, P.) *Journal of Pragmatics*, 2009, 41, 2145.

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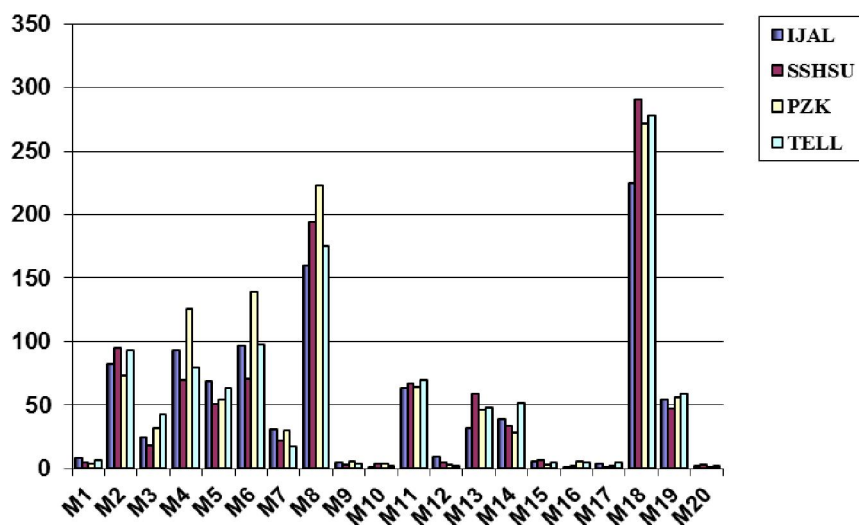
**Example # 21:** We usually distinguish between the nominal stimulus and the functional stimulus; a nominal stimulus, **for example, might** be a grammatically ambiguous sentence in its **purely** physical manifestation (either written or spoken), while the functional stimulus **would be** what the hearer or reader **perceives** it to **mean**. Moreover, the psychologist does not **think** of a response only in terms of a consequence of some specific stimulus. Nor does the response have to be defined in terms of a particular physical movement—**saying** a word, **for example**, for many purposes can be thought of **as** equivalent to writing the word. *TESOL Quarterly*, June 1997, 5(2), 102.

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As it can be seen in the above examples, in the international journals, two-fold marking were used skillfully in comparison with local ones, and copular similes (Marker 8) were accompanied by intensifiers (Marker 2) in order to emphasize the meanings that were driven from the paragraph.

### 3.3 Quantitative Findings

The following figures and tables show how metaphor markers have been used in the two corpora. The data illustration, then, will be followed by a detailed analysis:



*Figure 1* Frequency of Markers in the Iranian Journals (IJAL, SSHSU, PZK, & TELL)

As can be seen from Figure 1, the highest frequency of markers belongs to the category of modals (Marker 18) and among the journals, the Journal of Social Sciences and Humanities of Shiraz University has the highest frequency. The next frequency belonged to copular similes (Marker 8), and the lowest frequencies refer to Markers 16 and 20. Figure 2 shows the frequencies of markers in the international journals (EAP, ELT, Pragmatics, & TESOL Quarterly).

According to Figure 2, the highest frequencies of markers are the categories of modals (Marker 18) and copular similes (Marker 8), respectively. Among the journals, the Journal of Pragmatics shows the highest frequency in both markers. The lowest frequencies belong to Markers 16 and 20:

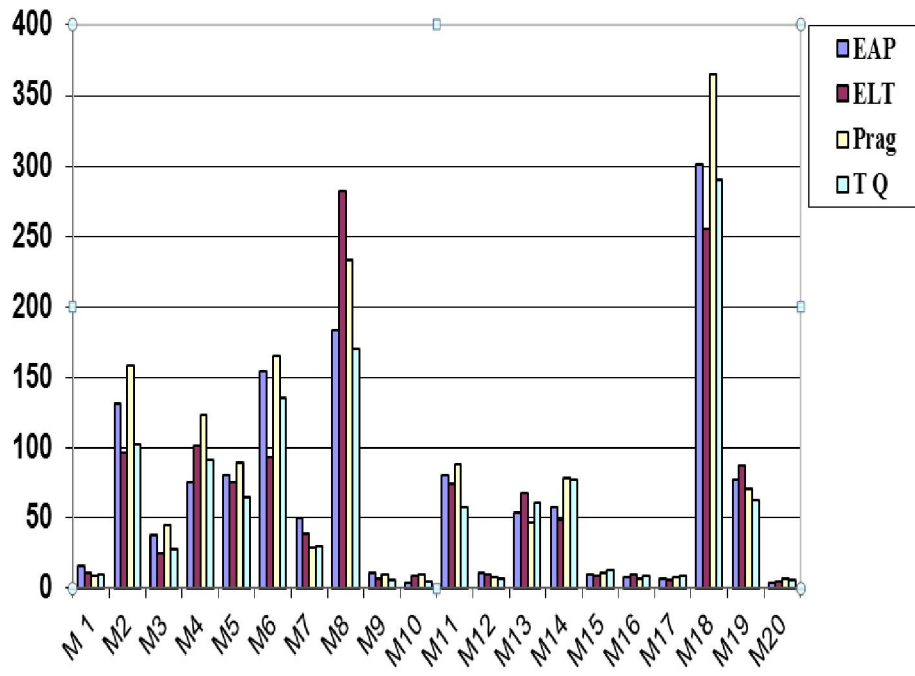


Figure 2 Frequency of the Markers in the International Journals (EAP, ELT, Pragmatics, & TESOL Quarterly)

Table 2 reveals the frequency of the markers in the international and Iranian journals together. It shows the percentage of the markers in the international and Iranian journals (within-group differences):

Table 2 *Percentage of the Markers in the International and Iranian Journals (Within-Group Differences)*

Markers	International Journals				Iranian Journals			
	EAP	ELT	Pragmatics	TQ	IJAL	SSHSU	PZK	TELL
M1	23	23	29	24	25	21	26	28
M2	25	21	30	24	21	28	25	26
M3	23	20	26	30	24	29	18	29
M4	24	29	21	26	22	17	34	27
M5	23	22	25	30	29	34	14	23
M6	23	18	30	29	25	22	18	33
M7	23	30	21	26	17	32	25	26
M8	30	27	23	20	47	27	15	11
M9	29	23	28	20	23	25	24	28
M10	15	32	35	18	10	36	36	18
M11	32	21	29	17	28	16	33	23
M12	22	33	26	19	22	34	22	22
M13	33	26	20	21	31	22	30	17
M14	28	17	30	25	24	17	35	24
M15	27	33	18	22	29	22	22	27
M16	22	18	36	24	25	19	34	22
M17	28	18	34	20	21	15	28	36
M18	27	20	33	20	24	28	21	27
M19	32	28	20	20	23	20	17	30
M20	18	22	32	27	25	37	12	25

As it can be observed from Table 2, the extent to which each marker was used in each Iranian journal can be compared to its international counterpart. For example, M1 is used most frequently in the journal of TELL (28%), and the lowest frequency is related to the Journal of Social Sciences and Humanities of Shiraz University (21%). Therefore, it can be deduced that, in within-group differences comparisons, there are differences among the Iranian journals in the application of the different types of metaphorical markers. Like the Iranian journals, there are within-group differences among the international journals in the application of the different markers. For instance, the highest frequency of M8 refers to the journal of ELT, but the lowest one refers to TESOL Quarterly. So, like the Iranian journals, there are differences among the international journals in the application of the metaphorical markers. Figure 3 shows the frequencies of the markers in the Iranian and international journals (IJAL, SSHSU, PZK, & TELL; EAP, ELT, Pragmatics, & TESOL Quarterly):

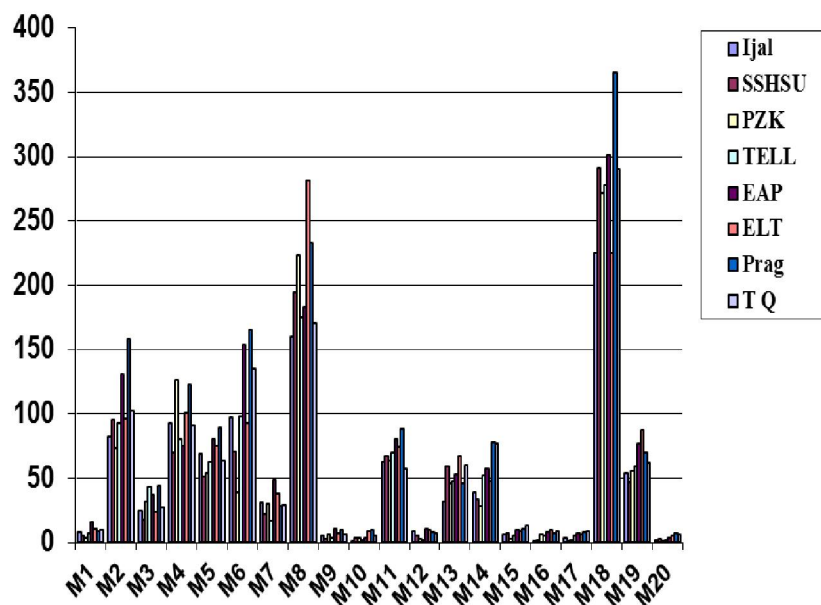


Figure 3 Frequency of the Markers in the Iranian and International Journals (IJAL, SSHSU, PZK, & TELL; EAP, ELT, Pragmatics, & TESOL Quarterly)

According to Figure 3, the international articles show higher frequencies than the Iranian articles in the application of the 20 metaphorical markers. It means that the international writers used the metaphorical markers (2, 8, & 18) more than the Iranian ones.

Table 3 shows the percentage of the markers in the Iranian and international journals (IJAL, SSHSH, PZK, & TELL; EAP, ELT, Pragmatics, & TESOL Quarterly):

Table 3 *Percentage of the Markers in the Iranian and International Journals (Inter-Differences)*

Markers	Iranian Journals				Iranian Journals			
	IJAL	SSHSU	PZK	TELL	EAP	ELT	PRAGMATICS	TESOL
M1	7	10	4	7	22	16	23	20
M2	11	10	12	12	15	12	15	13
M3	9	12	11	12	14	11	11	12
M4	9	10	7	10	10	13	17	19
M5	8	6	11	9	9	19	13	17
M6	9	11	5	11	16	14	17	20
M7	7	6	5	9	10	8	14	13
M8	8	15	12	12	9	17	12	9
M9	16	9	6	5	10	18	14	12
M10	12	13	12	13	13	10	13	9
M11	5	10	10	5	20	23	25	12
M12	11	17	15	11	13	12	13	11
M13	17	12	16	9	10	15	10	11
M14	10	8	14	11	15	10	17	14
M15	20	14	15	19	15	10	6	7
M16	12	9	16	11	15	13	17	12
M17	10	7	12	17	13	9	17	10
M18	10	11	9	11	10	12	20	13
M19	11	8	5	9	13	19	12	13
M20	7	10	4	7	14	16	23	20

Table 3 shows that the frequencies of the markers in the Iranian journals are less than the frequencies of the markers in the international ones, especially in the use of Markers 8 and 18. To see if the difference among the Iranian journals in the use of metaphor markers was significant or not, a chi-square was run. Table 4 shows the results of the given chi-square for Iranian articles (i.e., IJAL, SSHSU, PZK, TELL):

Table 4 Results of  $\chi^2$  in the Iranian Local Journals

Markers	$\chi^2$	Sig.
M1	3.6	.29
M2	64.	1.6
M3	*19.	.009
M4	3	.32
M5	11.5	.00
M6	*3.4	.00
M7	*23.	.14
M8	3	.008
M9	5.3	.46
M10	*11.	.48
M11	7	.92
M12	3.6	.10
M13	2.4	.00
M14	.45	.04
M15	6.0	.64
M16	*55.	.77
M17	2	.56
M18	*8.1	.02
M19	1.6	.69
M20	1.1	.39
	.33	
	*9.3	
	1.4	
	3.0	

\*Note.  $p < .05$

According to Table 4, the values marked by an asterisk are significant. It means that the metaphorical markers were used by the Iranian writers differently. In other words, there are within-group differences in the Iranian journals with regard to the use of the metaphorical markers. To see if the differences among the international journals in the use of the metaphorical markers had any significance or not, another chi-square was run. Table 5 shows the results of the given chi-square among the international articles:



Table 5 Results of  $\chi^2$  in the International Journals

Markers	$\chi^2$	Sig.
M1	2.6	.44
M2	*20.	.00
M3	1	.00
M4	*20.	.00
M5	2	.15
M6	*12.	.00
M7	4	.37
M8	5.2	.00
M9	*21.	.57
M10	4	1.0
M11	3.14	.11
M12	*36.	.77
M13	1	.02
M14	2.0	.01
M15	.00	.75
M16	5.8	.89
M17	1.1	.88
M18	*5.9	.00
M19	*10.	.53
M20	2	.82
	1.1	
	.58	
	.66	
	*16.	
	8	
	2.1	
	.90	

\*Note.  $p < .05$

In the analysis of the international journals, it was observed that, like the Iranian journals, there were significant within-group differences among the journals in the use of the metaphorical markers at  $p < .05$ . However, unlike the Iranian Journals, the intensifiers (M2) displayed a significant difference here:

Table 6 Results of  $\chi^2$  in the International and Iranian Articles  
(IJAL, SSSSU, PZK, & TELL)

Markers	$\chi^2$	Sig.
M1	4.05	.25
M2	4.8	.18
M3	*20.	.00
M4	2	.00
M5	*24.	.302
M6	7	.00
M7	3.6	.39
M8	*41.	.00
M9	9	.42
M10	2.9	.44
M11	*37.	.703
M12	2	.16
M13	2.7	.00
M14	.2.6	.01
M15	1.4	.91
M16	5.1	.98
M17	*11.	.31
M18	0	.00
M19	*11.	.39
M20	3	.94
	.500	
	.145	
	1.0	
	*72.	
	2	
	2.9	
	.40	

\*Note.  $p < .05$

Finally, in the analysis of the metaphorical markers among the two corpora, as it can be observed from Table 6, both corpora show significant differences.

#### 4. Discussion

The results obtained from the application of Goatly's (1997) inventory of metaphorical markers show that there are obvious differences in the use of metaphorical markers in the two corpora, though certain similarities can also be noted. In the Iranian journals, it can be seen that some markers show considerable

differences, that is, of the 20 marker types checked up, all the marker types, more or less, were found in this corpus, but seven marker types showed significant differences, namely, hedges and downtoners, semantic metalanguage, symbolism terms, copular similes, cognitive processes, verbal processes, and modals. Moreover, in the international journals, eight marker categories indicated significant differences: intensifiers, hedges and downtoners, semantic metalanguage, symbolism terms, copular similes, cognitive processes, verbal processes, and modals. As it can be seen, intensifiers (M2) show a significant difference. The use of certain exclusive markers in the international journals could be regarded as interconnected with the context in which these articles were produced and received. To be accepted as an authority in the society, this discourse type possibly tolerated for a more frequent use of metaphor as a rhetorical device, and for a more diverse linguistic expression in its signalling in comparison to the Iranian journals. The different script principles in the two types of text, imposed on the contextual characteristics of their production and reception, could involve different references to the metaphorical language used. For instance, in the international journals, the categories of markers expressing cognitive and verbal processes (*believe, think, regard, call, refer to*, etc.) seem to adjust to other linguistic expressions revealing cognitive processes involved in the articles. In addition, the markers from the category of modals (*may, might, could, probable, possible*, etc.) seem to reflect the uncertain language typically used in the results or discussion section of an article. The nonexistence or scarce instantiation of explicit markers, verbs expressing perceptual operations, and misperception terms in both corpora could be regarded as a unique feature of metaphor use in nonbookish types of discourse. The categories mentioned, alluding explicitly to the use of metaphor or referring to particular physical sensations, are more likely to be found in literary texts, rather than in popular academic-discourse articles.

In addition to the differences in the marker categories used in the two corpora, the figures related to the use of individual markers were dissimilar: The metaphorical markers were used differently in every journal. The corpus of the international journals, then, evidently employed not only a wider range of marker types but also a greater number of individual markers than the corpus of the Iranian journals. The occurrence of the metaphorical markers in the two corpora was outstandingly low, with the highest value being 33% and the lowest 17%. This may be indicative either of the poor marking of metaphors employed or the generally infrequent use of metaphors in the corpora studied, supposing that some of them are marked. The latter suggestion, however, challenges the claims of the writers stated previously about the two types of discourse being significantly metaphorical, both on the conceptual and on the text face level. This claim, nonetheless, needs to be addressed in a comparative study of marked and unmarked metaphors. Besides the low occurrence of the metaphorical markers as a shared feature of both corpora,

certain considerable differences in the individual use of the metaphorical markers were observed in the journals. The markers with the highest occurrence in the international journals were modals, in which the Journal of Pragmatics showed the highest frequency. These differed in some ways with the data from the Iranian journals, such as SSSU, PZK, and TELL that, more or less, show the highest frequencies in the application of the same markers. Therefore, modals then, when compared to other markers, had a high frequency in both corpora. This significant difference in the application of modals may be the result of the hesitancy of Iranian writers about the conclusion and discussion parts of their articles.

The similarities and differences described are noteworthy, as they reveal how the most frequent markers may adjust into the discursive attributes of the corpora studied. The frequent use of copular similes, such as *like* and *as*, which diminish a metaphor's effect and change it into a simile (see Goatly, 1997) is certainly suitable for academic discourse shown in applied linguistics texts where metaphor may follow strictly genre-related functions, like illustrating or filling terminological gaps. The dissimilarity in the sensitivity of the use of metaphorical markers could particularly be related to EFL instructional settings where texts standing for academic discourse are used with nonnative and elementary students. The text surrounding a metaphor could progress metaphor recognition strategies, as well as expand students' reading skills. Clearly, the lack of objective criteria for marker recognition further recommends that a limited inventory of words and expressions used to mark metaphors would be complicated if not impossible to achieve. In addition, markers stating verbal processes (such as *say*, *call*, *refer to*, and the likes) often indicate metaphors in two corpora. And these types of metaphors are strongly marked as someone else's quotation. Intensifiers, in sequence, may permit researchers not only to place enough emphasis, but also to strengthen metaphor's effect, whereas symbolic terms could help concentrate information into meaningful metaphors. The restricted numbers of overlapping markers, that is, those found in both corpora also are evidence for certain frequency variations. The majority of the overlapping markers were more often used in the international journals than in the Iranian ones. Finally, both corpora revealed similar models of multiple marking: Double marking was considerably more frequent than the triple variety, and the cases of four-fold marking were rare in both corpora. The pattern of two-fold marking was similar in both corpora, although this should further be proved regarding the discourse of the Iranian journals articles given the low number of metaphors indicated by two-marker patterns. The mentioned pattern consisted in using two lexical markers or one lexical marker in concert with inverted commas. A frequent arrangement in the corpus of the international articles was that of *as* (copular similes) with *model* (mimetic terms), on the one hand, and with a marker stating cognitive processes (*think*, *regard*), on the other. Pertaining to the corpus of

the Iranian articles, it is not easy to conclude a typical marker combination due to the variety of markers involved. It should be pointed out, however, that *like* (copular similes) and *just* (intensifiers) repeatedly had been combined with *really* (intensifiers), and *could* (modals). Consequently, regarding the two-fold signalling, markers from the category of copular similes were often used. These, in turn, were employed in conjunction with the markers typical of each corpus: mimetic terms and cognitive processes in the corpus of the Iranian articles, and intensifiers and modals in the corpus of the international articles. To sum up, the findings of this study reveals that the use of metaphorical markers as other kind of markers particularly pragmatic markers is the function of many variables among them one can refer to the mode of speech, level of formality, sociolinguistic orientation, and last but not least, kinds of genres used. Accordingly, researchers should be cautious in using such cohesive devices.

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