

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)**ScienceDirect**

Procedia - Social and Behavioral Sciences 98 (2014) 1678 – 1685

---

---

**Procedia**  
Social and Behavioral Sciences

---

---

International Conference on Current Trends in ELT

## **The Frequency and Types of Hedges in Research Article Introductions by Persian and English Native Authors**

Mahmoud Samaie<sup>a,\*</sup>, Fereshteh Khosravian<sup>b</sup>, Mahnaz Boghayeri<sup>c</sup><sup>a,b,c</sup> *English Department of Ilam University, Ilam 69315-516, Iran*

---

### **Abstract**

This study examined the types and frequency of hedges employed by Persian and English native speakers in the introduction section of academic research articles in the field of literature. In so doing, a corpus of forty research articles published in national and international journals were randomly selected and analysed through descriptive statistics in terms of frequency. In the introduction section, hedges allow researchers to establish an early niche for their research. The results of the study indicate that English writers are more tentative in putting forward claims and in rejecting or confirming the ideas of others than Persian writers. English native writers used modal auxiliaries, evidential main verbs, adjectives and nouns in RAs more frequently than their Persian native writers' counterparts. The present findings can be employed to design tasks and materials for teaching writing that focus not only on grammar but also on rhetorical structures and various genres of writing. The study also recommends that as hedges are used differently across languages and non-native authors mostly desire to publish their scholastic writings in prestigious journals, adequate consideration seems necessary to be paid to the descriptions of linguistic and rhetorical devices in English.

© 2014 Mahmoud Samaie. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](#).  
Selection and peer-review under responsibility of Urmia University, Iran.

*Keywords:* Types; Frequency; Hedges; Introduction; Literature

---

---

\* Corresponding author. Tel.: +98-912-447-8125.  
E-mail address: [m.samaie@ilam.ac.ir](mailto:m.samaie@ilam.ac.ir)

## 1. Introduction

One important means through which Research Articles (RAs) represent the features of an underlying community is through the writer's use of metadiscourse (Hyland, 2004). The concept of metadiscourse is better understood in the framework of Systematic Functional Linguistics (SFL), proposed by Halliday (1985). Halliday and other proponents of SFL believe that the forms of language are shaped by key features of the surrounding social context, as defined by Halliday's (ibid.) *field*, i.e. the type of activity going on, *mode* that is the channel of communication, and *tenor* which is the relationship between participants. These networks accordingly describe a range of relationships that exists between the components of a communicative event, i.e. between an author and a subject matter, the audience, and the options an author uses to structurally organize his/her text, thereby ascribing three metafunctions to language: ideational, interpersonal, and textual functions, respectively. He continues that the ideational system is a level at which the content of the text is considered and it is mainly informational, referential, and representational. In interpersonal level, the writers establish interpersonal relations with their audience, express their feelings about the ideational content, and guide readers in processing the propositional content. In textual level, on the other hand, choices are made by the writers to give texture to the discourse.

In this study, an attempt was made to focus on hedging since it is one of the main categories of interpersonal metadiscourse. Hedging is a communicative strategy for increasing or reducing the force of statements (Hyland, 1998). He (ibid.) further adds that the importance of hedges in academic discourse lies in the fact that they contribute to an appropriate rhetorical and interactive tenor, conveying both epistemic and affective meanings. In other words, it carries both an attitude towards the audience along with the writer's degree of confidence in the truth of the statement. Accordingly, in order to comply with the expectations of their academic communities, researchers may decide to be cautious in presenting the information and instead of claiming, say, "Penguins are birds", put it as: "penguins are considered to be/sort of birds" (Varttala, 2001).

As it is cited in Jalilifar (2007b), for many years, scholars in corpus linguistics have been studying hedging as a particular feature of academic writing (Myers, 1989; Salager-Meyer, 1994; Hyland, 1998). Lakoff (1972) referred to hedges as "words or phrases whose job is to make things more or less fuzzy". In academic writing, Hyland describes hedging as absence of commitment to the truth value of a proposition or a tendency to avoid expressing that commitment categorically (Hyland, 1998). Myers (1989) and Hyland (1998) have also illustrated that making claims in academic writing requires a lot of mitigation. Due to the significant role of hedging in academic writing, the present research intended to examine the types and frequency of hedging devices in academic research articles by comparing their frequencies in the field of literature and between Persian and English. The introduction section of research articles was the main focus of the current study, because it takes the form of an extended preface in which the nature of the study is explained.

## 2. Review of the related literature

Hedging has been a subject of interest to many linguists for many years. Among these linguists, in 1994, Salager-Meyer discussed how the communicative purpose of the different rhetorical sections of research papers and case reports in medical English written discourse influences the frequency and category distribution of the modulation devices such as hedges used in each section. To this end, a corpus of 15 articles drawn from five leading medical journals was analyzed. Hedges were identified by means of a contextual analysis, their frequency was recorded in the different rhetorical sections of the 15 articles, and their percentages over the total number of running words were computed. He concluded that the choice of expressions of tentativeness and flexibility is prescribed by the level of claim the writers wish to make, the overall structure of the discourse, its communicative intention, and the authors' pretension to universality and generalization.

In 2001, Vassileva analyzed research articles in linguistics in English, Bulgarian, and Bulgarian English meticulously to investigate the similarities and differences in the degree of commitment and detachment of interpersonal metadiscourse markers. The results showed considerable differences in the overall distribution of

hedges and boosters throughout the three main parts of the article, namely the introduction, discussion and conclusion, which may lead to misunderstandings in cross-cultural communication. The variations were related to the different rhetorical and educational traditions to further facilitate the teaching of academic writing in English to Bulgarians, but also to appeal for a better understanding and tolerance of culture-specific features with a view to preserving cultural identity when using English as the international language of academic communication.

Jalilifar (2007a) selected forty research articles published in national and international journals and analyzed them for a combination of the existing classification of hedges. He tried to find answers to the context and frequency of hedges in Humanities and Natural sciences articles by English and Iranian RA authors. Results showed that there are differences in the use of hedges in the different rhetorical sections of the articles. Yet the difference was not statistically significant. Besides, the existing differences revealed the research writers' leaning to seem objective, make claims about their own results and discover implications resulted from their studies.

Jalilifar (2007b) investigated hedges in English academic research articles but this time with a close focus on the abstract section by three groups of researchers, namely native speakers of English, native speakers of Persian and native speakers of other languages. He provided a corpus of 552 thesis and dissertation abstracts from nine disciplines with the hedges computed. Afterwards, according to the accepted models, the recorded hedges were categorized and the chosen hedging types in each rhetorical section were determined. The results demonstrated that conventional hedges that are hedges by passive voice and hedges by putting oneself at a distance from the data were the primary types of hedges used in the abstracts. Moreover, concerning the incorporation of hedging devices, there could hardly be variations among the disciplines and groups.

In 2007, Abdollahzadeh focused on the use of metadiscourse in 52 Persian and English newspaper editorials that was 26 from each. The results demonstrated a significant use of certainty markers and code glosses by English editors. On the other hand, Persian editors employed a significantly higher instance of emphatic markers. The results also showed that although writers may try to abide by the norms and proclivities of their disciplinary community; they are mainly influenced by their cultural preferences in their attempts to appear persuasive.

Šeškauskien (2008) examined the use of hedging devices by second language users of English, more specifically, by Lithuanian undergraduate students majoring in English. The investigation drew on the data collected from the Lithuanian students' bachelor papers written according to Swales' IMRAD model (Swales, 1990). The research was limited to the introductions of the papers, which were subjected to peer-review before submission. The findings did not support the view that English users can hardly notice hedges in the text. Even more, more advanced and proficient learners of English were able to produce texts which in terms of hedging were comparable to those produced by experienced academics.

Most of the studies conducted on hedging have either focused on western languages (Clyne, 1991; Crismore, Makkannen, & Steffensen, 1993), or they have been done in the context of casual or oral discourse (Coates, 1987; Horman, 1989; Nittono, 2003; Stubbs, 1986). Due to the lack of studies conducted on the use, frequency, and distribution of hedges in the field of literature and across languages (Crystal, 1995; Hyland, 1998), this study investigated hedging in academic research articles by comparing different types and frequency of hedging devices in this discipline and between two languages, English and Persian.

### *2.1. Statement of the problem*

The extent to which research-article authors emphasize and/or deemphasize the truth-value of their claims is one of the issues that have for a long time occupied the minds of researchers in the field of contrastive rhetoric. Recent studies (Clyne, 1991; Kreutz & Harres, 1997; Vassileva, 1997; Ventola, 1997 to mention only a few) have shown that various languages display considerable variations in the use of hedges, which may bring about cross-cultural misinterpretation and hinder scientific communication. Since nowadays English has been widely recognized as an

international language of scientific communication and dissemination of knowledge all over the world, most of research articles which are to be published in high-prestige journals should be written in English. One of the main criteria for writing a publishable research article is making a coherent text. Hedging devices are among the tools by which this purpose would be accomplished. In doing so, this study tried to explore how much published literature articles in English and Persian achieved consistency through employing these devices.

## 2.2. Significant of the study

The significant role of hedging in academic writing and research articles is well documented in different studies (Hyland, 1994, 1996b, 1996c, 1998, 1999; Salager-Meyer, 1994; Vande Kopple and Crismore, 1990; Varttala, 2001). Despite its major role in academic discourse, hedging has received most attention in the context of casual and oral discourse (Stubbs, 1986; Coates, 1987; Horman, 1989; Nittono, 2003). There have not been many cross-linguistic studies on hedging in research articles. The limited numbers of studies which have been conducted in this area have shown that there are some variations in the use of hedges across languages (Clyne, 1991; Crismore et al., 1993; Vassileva, 2001; Yang, 2003). The cross-linguistic studies on hedging have mainly focused on those languages which belong to western culture. This study examined hedging in a non-western language, Persian, to see if there are any differences in the types and frequency of hedges used in the above-mentioned texts written in this language and in English. Literature was the selected field in this study to address the scarcity of studies on hedges in this area. It was expected that the findings of this study would also help the Iranian students majoring in English and Persian literature to be successful in publishing research articles in scholarly journals.

## 2.3. Research questions

With regard to what has already been stated in the previous sections and based on the objectives of the present research, the following research questions were sought to answer:

1. Do Persian and English native speakers employ the same types of hedges in the introduction section of their academic research articles in the field of literature?
2. Do Persian and English native speakers employ the same number of hedges in the introduction section of their academic research articles in the field of literature?

## 2.4. Null hypothesis

Based on the second research question above, the null hypothesis was as follows:

Ho: There is no significant difference between the number of hedges employed by Persian and English native speakers in the introduction section of their academic research articles in the field of literature.

## 3. Method

A descriptive approach applied in this study. This study compared and analyzed a specific feature of discourse, namely hedging. To this end, it incorporated models proposed by Hyland (1996a, 2000). According to Hyland (1996a), hedging is most commonly expressed by lexical verbs (e.g. *appear, believe*), epistemic adverbs (e.g. *possibly, apparently*), epistemic adjectives (e.g. *likely, possible*), and modal verbs (e.g. *may, should*). In this study, the analysis was based on the comparison between the types and number of these four classes in academic research article introductions across two languages, Persian and English, in the field of literature. The sensitive point arising from this method was the use of quotations in the articles. Some researchers avoid paraphrasing and tend to give preference to quotations in all possible cases. Therefore, quotations were excluded from the overall count.

### 3.1. The corpus

The corpus was comprised of 40 research articles (RAs), 20 in Persian and 20 in English and the focus was on one rhetorical section, introduction. Due to different rhetorical functions of each RA section, this part was

considered as one of the main sections which contain hedging devices. The RAs were randomly selected from leading (Iranian and International) journals in the field of literature. Regarding the date of RA publication, all the Persian and English RAs were limited to those published within the last ten years. It was assumed that time influences the writers' style and with this time limit the probable writers' style diversity was taken into account.

### 3.2. Procedure, data collection and analysis

For the purpose of the study, the types and numbers of hedges were analyzed to see whether the incidence of hedging forms would vary across English and Persian in the RA introductions in the field of literature. In order to meet these goals, lexical verbs, epistemic adverbs, epistemic adjectives, and modal verbs that show uncertainty and tentativeness in the two sets of data were identified and classified. The list of items expressing doubt and uncertainty provided by Hyland (1996a, 2000) for English were used and because of the lack of taxonomy of Persian hedges, the relevant types of hedges in Hyland's taxonomy were translated into Persian and employed in the analysis of the related texts.

In order to show the frequency of hedging devices across the languages, Persian and English, the researcher decided to consistently use a standardized size of 2000 words. Since the size of RAs in each language varied, converting the raw scores into meaningful figures and calculating the frequency of hedging per 2000 words provided a basis for comparison. The procedure for calculating the relative frequency per 2000 words was as follows: first the raw frequency of the device in the introduction sections of the RAs in the specified language was determined. Then, the raw frequency (F) was multiplied by 2000 and the result was divided by the total number of words in the specified section of RAs. To reveal the final results in the tables, the figures were rounded off to the first two decimals. So, the procedure of investigation consisted of hedge identification, types and frequency calculation, and interpretation of results. The collected data were analyzed using descriptive statistics in terms of frequency. Additionally, to check if the probable differences between obtained frequencies were statistically significant, inferential statistics, namely Chi-square was employed.

## 4. Results

To analyze the data, first the number of words in introduction sections of RAs was calculated. Table 1 below provided the total number of the words in RAs of the discipline, literature, in English and in Persian across introduction section.

Table 1. Number of words in English and Persian RAs in the field of literature across introduction section

Discipline	literature	
	English	Persian
Introduction	4302	6469

The table shows that the number of words in English literature RA introductions is 4302 and the number of words in Persian literature RA introductions is 6469. The frequency of hedging types was calculated and distributed based on their categories. The three main categories of "main verbs, non-main verbs, and modal auxiliaries" were used to show the distribution of hedging forms in this study. Main verbs were further divided into "judgmental and evidential" verbs. Non-main verbs were also sub-categorized into "adverb, adjective, and noun". Table 2 presents the results of the hedging categories across the introductions of English and Persian research articles in the field of literature.

Table 2. The frequency and percentage of hedging forms across introduction sections in English and Persian RAs in the field of literature

Forms of hedge	English		Persian	
	F	Per 2000	F	Per 2000
Main verb	30	13.95	32	9.89
Judgmental	18	8.37	22	6.80
Evidential	12	5.58	10	3.09
Non-main verb	33	15.34	43	13.29
Adverb	16	7.44	36	11.13
Adjective	9	4.18	0	0.0
Noun	8	3.27	7	2.16
Modal auxiliary	35	16.27	0	0.0
Total	98	45.56	75	23.19

\*The figures in this table are rounded off to the first two decimals

Key to table: F = Frequency

According to table 2, the introduction sections of English literature RAs show a frequency of 45.56 ( $n = 98$ ) per 2000 words. The frequency of hedges in the introduction section of Persian RAs, as shown in table 2, is 23.19 ( $n=75$ ) per 2000 words. Concerning the types of hedging devices, as it is observed in table 2; *main verbs*, *non-main verbs*, and especially *modal auxiliaries* – as different types of hedging devices – employed by English RA writers are more than those applied by Persian RA writers. The percentage of the total number of hedging forms reveals that English RA writers employed hedges twice as much as Persian RA writers did. The only type of hedging forms that Persian RA writers utilized more than English RA writers was *adverb* that was included in non-main verb (Persian, 36 per 2,000 words (11.13); English, 16 per 2000 words (7.44)). After the detailed analysis of the type and frequency of hedging devices, Chi-square was carried out to clarify the probable differences. The results appear in Table 3.

Table 3. Chi square result

	Number
Chi-Square	3.058
Df	1
Asymp. Sig.	.000*

\*  $P < .05$

As shown in Table 3, the obtained significance of .000 indicates that there is a significant difference in the application of hedging devices by Persian and English RA writers.

## 5. Discussion

Data analysis of introduction sections of English and Persian literature RAs revealed that there was a difference between the choice of terms used as hedging devices in the articles written by English native authors and Persian native authors in terms of their type and frequency. In the corpus under study, since *modal auxiliaries* were the most frequent hedge types, they could be considered as the core element of hedging types used in the corpus. However, *modal auxiliaries* and *adjectives*, were absent in Persian corpus. English native writers had used *modal auxiliaries*, *evidential main verbs*, *adjectives* and *nouns* in RAs more frequently than their Persian native writers' counterparts. This made introduction section of English native writers more in conformity with the rules of discourse community

of applied linguistics RAs. Moreover, in lines with Mauranen (1997), the tendency toward using fewer hedges by nonnative speakers might be explained by the observation that nonnative speakers with a lower-level proficiency hedge less than those with a higher level of proficiency.

To compare the findings of this study with the relevant literature, a reference made to Ventola and Mauranen (1990) and Clyne (1991). Clyne (1991) observed that when German scholars produce academic texts in English they tend to hedge their statements far more strongly than native speakers of English, a tendency probably associated with the linguistic convention of the corresponding type of discourse in German. This trend, Clyne stresses, is open to criticism, because texts that are heavily hedged may appear "layman like". Ventola and Mauranen (1990) and Mauranen (1997) found that Finnish speakers of English do not appear to use hedges in the same way as native speakers of English as a result of differences between levels of proficiency. To conclude the comparison between two studies, it could be claimed that the results of the present study correspond to the findings of the mentioned researchers since the subcategory of hedging devices used by English native authors and Persian native authors differs in terms of kind and frequency. English native writers have used a variety of terms to express tentativeness and degree of their commitments towards their findings. The larger number of hedges in English native speakers' corpus was an evidence for their familiarity with interactiveness feature of applied linguistics RAs. Persian native writers used a limited variety of terms to express their tentativeness and degree of commitments towards the findings due to their attention to textual rather than interactional aspect of academic writing, making their RAs less interactive compared to English corpus.

## 6. Conclusion

This study presented a descriptive analysis of RA introductions written in English and Persian by academic writers. In the selected articles, the writers made an attempt to introduce their work in the introduction sections of the RAs. To introduce and justify the conduct of their research, writers usually refer to the previous studies to show the shortcomings or the flaws which exist with different aspects of the study such as methodology or interpretation of the results. At the same time, they are aware that being too assertive while discussing the others' research boldly may not be a conventional style in academic context. Hedging as a functional category can help the researchers to take a cautious approach to introduce their views towards the other studies. Hedging also indicates that writers know the rules of conduct by showing concern regarding the face of the others. The neglect for this may cause confrontation with the other members of the community whose work has been criticized. The gained results are hoped to be useful for both teaching second language writing in general as well as teaching English academic writing for Persian advanced learners and Persian scholars.

## References

- Abdollahzadeh, E. (2007). Writers' presence in English and Persian newspaper editorials. Paper presented at the 34th International systemic functional grammar. Odense, Denmark.
- Clyne, M. (1991). The sociolinguistic dimension: The dilemma of the German-speaking scholar. In H. Schroder (Eds), *Subject-oriented texts: Languages for special purposes and text theory* (pp. 49-68). Berlin & New York: Walter de Gruyter.
- Coates, J. (1987). Epistemic modality and spoken discourse. *Transactions of the Philological Society*, 85, 100-131.
- Crismore, A., Makkannen, R., & Steffensen, M. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication*, 10, 39-71.
- Crystal, D. (1995). In search of English: A traveler's guide. *ELT Journal*, 49, 107-121.
- Halliday, M. A. K. (1985). *An introduction to functional grammar*. London: Edward Arnold.
- Horman, L. A. (1989). The evaluative consequences of hedges, hesitations, and intensifiers: Powerful and powerless speech-styles. *Human Communication Research*, 15, 383-406.
- Hyland, K. (1994). Hedging in academic writing and EAP textbooks. *English for Specific Purposes*, 13(3), 239-256.
- Hyland, K. (1996a). Nurturing hedges in the ESP curriculum. *System*, 24(4), 477-490.
- Hyland, K. (1996b). Talking to academy: Forms of hedging in science research articles. *Written Communication*, 13, 251-281.
- Hyland, K. (1996c). Writing without conviction? Hedging in science research articles. *Applied Linguistics*, 17, 433-454.
- Hyland, K. (1998). *Hedging in scientific research articles*. Amsterdam, Philadelphia: John Benjamins Publishing Company.
- Hyland, K. (1999). Talking to students: Metadiscourse in introductory course books. *English for Specific Purposes*, 18, 3-26.

- Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing*. Singapore: Longman.
- Hyland, K. (2004). *Genre and second language writing*. Ann Arbor, MI: University of Michigan Press.
- Jalilifar, A. (2007a). All the way through the hedges: A corpus analysis of hedges in research articles, *JAL*, 23, 39-63.
- Jalilifar, A. (2007b). Hedging as a pragmatic strategy: Variations across disciplines and cultures. *TELL*, 1(3), 43-69.
- Kreutz, H., & Harres, A. (1997). *Some observations on the distribution and function of hedging in German and English academic writing, culture, and styles of academic discourse*. Mouton de Gruyter: Berlin.
- Lakoff, G. (1972). Hedges: A study in meaning criteria and the logic of fuzzy concepts. *Chicago Linguistic Society Papers*, 8, 183-228.
- Mauranen, A. (1997). Hedging in language revisers' hands. In Markkanen & H. Schroder (Eds.), *Hedging and discourse: Approaches to the analysis of a pragmatic phenomenon in academic texts* (pp. 115-133). Berlin and New York: Walter de Gruyter.
- Myers, G. (1989). The pragmatics of politeness in scientific articles. *Applied Linguistics*, 10, 1-35.
- Nittono, M. (2003). Japanese hedging in friend-friend discourse. Unpublished Ph.D dissertation. Columbia University, USA.
- Salager-Meyer, F. (1994). Hedges and textual communicative function in medical English written discourse. *English for Specific Purposes*, 13(2), 149-171.
- Šeškauskien, I. (2008). Hedging in ESL: A case study of Lithuanian learners. *Studies about languages*, 13, 71-76.
- Stubbs, M. (1986). A matter of prolonged fieldwork: Notes towards a modal grammar of English. *Applied Linguistics*, 7, 1-25.
- Swales, J. M. (1990). *Genre Analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Vande Kopple, W. J., & Crismore, A. (1990). Readers' reactions to hedges in a science textbook. *Linguistics and Education*, 2, 303-322.
- Varttala, T. A. (2001). Hedging in scientifically oriented discourse: Exploring variation according to discipline and intended audience. Unpublished Ph.D dissertation. University of Tampereen Yliopisto, Finland.
- Vassileva, I. (1997). *Hedging in English and Bulgarian academic writing, culture, and style in academic discourse*. Mouton de Gruyter: Berlin.
- Vassileva, I. (2001). Commitment and detachment in English and Bulgarian academic writing. *English for Specific Purposes*, 20, 83-102.
- Ventola, E. (1997). Abstracts as an object of linguistic study. In F. Danes, E. Havlova & S. Cmejrkova (Eds.), *Writing vs. speaking: Language, text, discourse, communication* (pp. 333-352). Proceedings of the Conference held at the Czech Language. Tübingen: Günter Narr.
- Ventola, E., & Mauranen, A. (1990). *Tutkijat ja englanniksi kirjoittaminen*. Helsinki: Helsinki University Press.
- Yang, Y. (2003). A contrastive study of hedges in English and Chinese academic discourse. Unpublished MA thesis, Jilin University, Changchun, China.