

Hedging in English and Persian Editorials: A Contrastive Study

Mohammad Hasan Tahririan *

Professor of Applied Linguistics, English Department, Faculty of Literature & Humanities, Sheikhbahaee University, Isfahan, Iran

&

Mozhdeh Shahzamani

Islamic Azad University, South Tehran Branch

Abstract

The present study was conducted to examine the hedging phenomenon, an important linguistic feature which is concerned with the expression of tentativeness and possibility, in journalistic English. It specifically aimed at examining English and Persian social, economic and political newspaper editorials to describe the similarities and differences in the frequency of hedging devices in the two languages. The results revealed that English newspaper editorials enjoyed more hedges than Persian ones. Regarding topic variations, English political editorials were slightly more hedged than the economic and social ones; whereas, Persian economic editorials were slightly more hedged than the political and social ones.

Keywords: Contrastive Analysis; Editorials; Genre analysis; Hedging; Journalistic Texts

* *E-mail address:* tahririan@shbu.ac.ir

Introduction

Genre analysis deals with the study of how language is used within a particular context, or the study of specialist areas of language. It has been in the focus of different researchers by a particular speech community which has coincided with many studies on academic genre texts such as research articles (RAs). Among these are numerous studies dealing with “hedging”, one element included in the interpersonal, interactional metadiscourse that has received great attention. (Atai and Sadr, 2008; Davoodifard, 2006; Falahati, 2004; Hyland, 1999, 1998; Myers, 1989; Salager-Meyer, 1994; Skelton, 1988). As hedging is a crucial aspect of the linguistic behavior of academic genres, and it has been mostly studied in RAs, the present study tends to investigate this feature in journalistic language, a discourse type in which hedges are used commonly. The other reason for such a choice is that newspapers have more readers than any kind of written text, and editorials “cover a major portion of newspaper pages and represent the position and underline the reputation of a newspaper” (Tahririan 1995, p. 128). Therefore, as newspapers are good sources of language forms and contain different text-types and language styles, it is worth considering newspaper editorials as an evidence of hedging and dealing with them in a contrastive study.

Moreover, errors in the use of hedging devices can cause ambiguity and misunderstanding. Being unaware of this linguistic feature, nonnative speakers of English may have many difficulties understanding the intended meanings of the authors. This may be much more serious for those who want to read and write or even translate journalistic texts effectively. Thus, contrastive analyses of the occurrence of hedges in the journalistic genre will give more insight to L2 learners regarding the possible functions hedges may have in learning a second language.

Review of the literature

Hedges are sometimes needed in utterances to present the information vaguely, uncertainly, or imprecisely. In other words, hedging is used to reduce the potential risk of a claim or prevent embarrassing situations in

case one is found to be wrong (Varttala, 2001). The following two examples taken from Varttala (2001) may clarify the point:

1. This drug *may* help you.
2. Penguins are *sort of* birds.

The hedging devices in these two examples, *may* and *sort of*, insert an air of imprecision and fuzziness into the utterances and indicate that the writer wishes to control his commitment regarding the accuracy of what is being said. In addition to modal auxiliaries which most readily indicate hedges, the scope of the concept is also extended to cover linguistic items conveying meanings similar to the most typical epistemic items like such adverbs as *possibly and presumably*, such adjectives like *probable*, nouns like *hypothesis* and some verbs like *suggest* and *appear*.

The hedging phenomenon, as a subtype of interpersonal metadiscourse, is a multi-faceted phenomenon that has been the concern of many scholars and viewed from such different perspectives as politeness (Brown & Levinson, 1978, 1987; Leech, 1983; Myers, 1989), semantics (Lakoff G., 1982, 1986), logic (McCawley, 1981; Zadeh, 1972) and the nature of hedging (Hyland, 1995, 1997, 1998; Markkanen & Schröder, 2000; Varttala, 1999, 2001; Vassileva, 2001; Vold, 2006). Along with such perspectives, there has been an additional distinct research trend dealing with the hedging phenomenon which examines hedging from within contrastive framework in two or more languages. Clyne (1991) in a study regarding the variations in the use of hedging devices across languages found that German researchers in producing academic texts in English tend to hedge their writings more strongly than native speakers of English.

Vassileva (2001) examined the similarities and differences in the degree of detachment in English, Bulgarian and Bulgarian English, drawing on three sections of research articles namely, Introduction, Discussion and Conclusion and came to the conclusion that the degree of detachment was the highest in English and the lowest in Bulgarian

English. In this connection, Burrough-Boenisch (2005) asked 45 biologists from eight different countries to critically read and amend the English in Discussion sections of three Dutch-authored papers. He concluded that Dutch scientists tended to under-hedge.

Davoodifard (2006) studied the occurrence of hedging in English and Persian academic research articles and she came up with the result that English academic research articles were more hedged than Persian ones. In the same line, Atai and Sadr (2008) examined the occurrence of hedging in the Discussion sections of English and Persian journals published in the field of applied linguistics. Their findings revealed that the variety of hedging used in the Discussion sections of English articles was significantly wider than the variety of hedging employed in those of Persian articles. What seems to be unanimously agreed upon in the obtained findings is that in terms of the frequency and variety, the use of hedging devices in academic genre is language sensitive.

These findings are valuable and make us aware of the possible differences which exist between different languages in terms of using hedging devices; however, they have revealed little about variations in the use of hedging devices in other discourse types. Journalistic language, an area in which hedges are used commonly, can cause problems for nonnative speakers (NNS) of English who may be unaware of the functions associated with this linguistic feature. Errors in the use of hedges in journalistic language can also cause misunderstanding, misinterpretation, ambiguity and vagueness. One may seem more assertive or uncertain or may cause misunderstanding and incorrect conclusion about the intended meaning. In addition, the hedging phenomenon can cause many difficulties and problems for L2 learners in writing, reading or even translating journalistic texts. Each language community has its own culture and norms which prescribe content, style and rhetorical structure (Árvay & Tanko, 2004). The L2 learners' awareness of such norms can help them to properly decode the author's intended meaning or to write effectively for another community with

different discourse, and neglecting these rules can hinder readers' comprehension.

Studies on cross-linguistic and topic variations in journalistic texts can provide us with more accurate information about the differences not only in the frequency but also in the functions associated with these devices in journalistic texts to find out about the L2 context norms. They can also lead to a better understanding of the norms of L2 contexts. Considering the above mentioned gap, this study set out to contrastively analyze English and Persian newspaper editorials as a distinct type of discourse in terms of the frequency of hedging devices. More specifically this study sought to investigate what similarities and differences can be observed in linguistic realization associated with hedging used in Persian and English journalistic texts.

Method

Corpus

The corpus of the study was taken from the English and Persian newspaper editorials available online. A preliminary pilot study was conducted to select a representative sample of newspapers. To this end, those newspapers which had specific political or economic orientation or were published for specific audience were excluded. From the remainder, then, those newspapers which addressed a wider variety of topics and audience and were balanced in terms of the occurrence of hedging were selected. Out of these, three English and three Persian newspapers were finally decided to be used for the purpose of this study.

The selected issues of the Persian newspapers were from *Hambastegi*, *Iran*, and *Jam-e-Jam*, and the English ones were *Washington Post*, *New York Times* and *USA Today* published between *January* and *April 2007*. Editorials from each newspaper were then randomly selected from political, economic and social sections of each newspaper and analyzed in terms of the frequency of occurrence of hedges. The final corpus of the study comprised 56073 running words in Persian and 38356 running

words in English. Table 1 summarizes the distribution of length of the editorials in words by language and topic.

Table 1

The distribution of length of the editorials in words by topic and language

Topic Language	Economic	Social	Political	Total
English	5900	13719	18737	38356
Persian	19902	16334	19837	56073

Data analysis

In order to identify the hedging devices, the editorials were meticulously examined. Based on Varrtals' (2001) model, Figure 1, instances of hedging in the editorials were identified, coded and categorized. Varrtala's taxonomy was considered to be valid since his analysis of hedging was supported by the authors of the research article through personal contact and native speakers' reactions. Needless to say that due to the tentative, indeterminate and complex nature of the hedging phenomenon, no study can claim to be absolutely valid and reliable and provide objective interpretations with respect to the analysis of hedging.

The locations of the hedges in the texts were also recorded and stored for later reference. The types of hedges and their frequency were identified and recorded. To avoid probable errors of identification and in order to have a uniform set of data, all the editorials were examined and analyzed twice.

Figure 1
The five major categories in Varttala's (2001) study

<i>Modal auxiliaries</i>	Verbs	Adverbs	Nouns	Adjectives
	Nonfactive reporting v.	Probability adv.	Nonfactive assertive N.	Probability adj.
	Tentative cognition v.	Indefinite frequency	Tentative cognition N.	Indefinite frequency adj.
	Tentative linking v.	Indefinite degree	Tentative likelihood N.	Indefinite degree adj.
		Approximative adv.		Approximative adj.

Varttala's (2001) model divides hedges into five main categories of modal auxiliaries, full verbs, adverbs, adjectives, nouns and an additional category classified under "other hedges" which includes such devices and strategies as "if clauses" and references to "limitations". As to the identification of verbs functioning as hedge, nonfactive reporting verbs are used to report other scholars' studies or to give some description of the author's own research. *Suggest* and *argue* are examples of this type of verb. Tentative cognition verbs like *hope* and *suspect* refer to the mental status of the author whose work is being reported and their tentative nature making them act as hedges lies in the idea that "the information they introduce in one way or another based on subjective cognitive activity rather than uncontroversial empirical evidence" (Varttala, 2001, p.122). Also, tentative linking verbs are such verbs as *seem* and *appear*.

As to the hedges being adverbs in form, probability adverbs like *apparently* and *probably* are used to show some degree of tentativeness toward the proposition the author puts forth. Adverbs of indefinite frequency like *sometimes* and *often* are cases in which authors do not like or wish to provide readers with exact information about the frequency of an event in time. Using this adverb is a kind of help to the authors in order to prevent providing exact numerical information. Adverbs of indefinite degree like *significantly* and *somewhat* are helpful devices to lessen the risk of being proved wrong or rejected when the

exact figures, degrees or quantities are not known to the author or when the author pointing to exact figures is in the danger of rejected or being wrong. Approximative adverbs like *about* and *almost* are used to show tentative limits and degrees as their name suggests. These adverbs also show imprecision in quantification and approximation in numerical data.

Regarding the adjectives, probability adjectives like *possible* are used to show some degree of tentativeness toward the proposition the author put forward. Adjectives of indefinite degree have the responsibility of reducing the absoluteness of what is said and avoid commitment to exact figures.

With respect to the nouns, nonfactive assertive nouns such as *prediction* show tentativeness in reporting other researcher or the author's own work. Nouns of tentative likelihood are used to say that what is presented is not an absolute truth or proved wrong. *Likelihood* can play such role in English texts.

Frequency counts of each of the identified categories and subcategories were separately done for each in both languages. Finally, to see if the differences between the frequency of the occurrence of the hedging devices in the English and Persian editorials in general and across different topics in particular were statistically significant, chi-square tests were applied.

Results

Besides categories which were present both in Persian and English, there were category cases which were not presented in both languages. For example, tentative cognition nouns were absent in both English and Persian corpuses. Also, no instances of adjective and tentative likelihood noun were identified in the Persian corpus. Finally, the subcategory of approximative adjectives had no instance in the English corpus.

Hedging variation by language

The Persian and English editorials indicated differences in the frequency of the usage of different categories of hedges. In general, the English editorials were more heavily hedged than the Persian ones. The total tokens of devices identified as hedges in the English and Persian newspaper editorials were 871 and 626 cases respectively. Of all the hedges in the Persian editorials, 245 cases were in economic, 207 in political, and 174 in social editorials. Out of 871 hedging cases in the English editorials, 132 cases were in economic, 308 in social, and 431 in political editorials. Table 2 illustrates the summary of the results.

Table 2
Frequency of hedges in different text types of discourse

Language	Political	Economic	Social	Total
English	431	132	308	871
Persian	207	245	174	626

The Chi-Square test results indicated that the differences between the frequency of hedges in English and Persian newspapers Editorials were significant (Pearson Chi-Square value = 194.55; $p = 000$).

Hedging variation by topic

The frequency of occurrence of hedges, revealed that the English political editorials were slightly more hedged than the economic and social ones. Also the Persian economic editorials were slightly more hedged than the political and social ones. More specifically, the occurrences of nonfactive verbs in English were more common in the political editorials (50%), followed by economic (26.66%). In the Persian editorials, the economic editorials contained the highest frequency of hedges (66.66%), followed by political editorials (20.83%).

Regarding the use of tentative cognition verbs, the English political editorials contained (47.22%), following by economic editorials (30.55%). In the Persian editorials the political editorials (40.62%) had the highest frequency. Probability adverbs in English editorials were highest in frequencies in political editorials (55.55%). With respect to the adverbs of indefinite frequency, the social English editorials had the highest frequency (50%). Moreover, these adverbs were more common in Persian economic and social editorials (38.77%). The highest frequency of approximative adverbs belonged to Persian economic editorials (51.72%). In English editorials the most frequent of these adverbs belonged to the social editorials (43.42%).

The analysis of the English and Persian newspaper editorials on various topics illustrated great degrees of variations in the use of hedges. The chi-square test results showed that variations in the frequency of hedges in different topics were statistically significant ($p = .000$).

The obtained values of Pearson Chi-Square for political, economic, and social editorials were 93.562, 32.005, and 65.767 respectively and all three differences between English and Persian in terms of the frequencies of occurrence of hedging devices were statistically significant ($p = 0.000$).

Categories of identified hedging devices in the corpus

English modal auxiliaries

The total number of devices identified as hedges in the English newspaper editorials was 871 cases. Out of these cases, 292 occurrences which comprised 33.52% of all the hedges belonged to modal auxiliaries (Table 3).

Table 3
Frequency of occurrence of the English modal aux. identified as hedges by subject

Modal aux. verb	Economic	Political	Social	Total
May	4 (9.25%)	16 (0.73%)	4 (3.88%)	24 (8.21%)
Might	5 (11.90%)	22 (14.76%)	16 (15.83%)	43 (14.72%)
Can	4 (9.52%)	10 (6.71%)	14 (13.59%)	28 (9.58%)
Could	3 (7.14%)	28 (18.79%)	17 (16.50%)	48 (16.43%)
Will	0	2 (1.34%)	2 (1.94%)	4 (1.36%)
Would	23 (54.76%)	60 (40.26%)	31 (30.09%)	114 (39.04%)
Must	0	3 (2.01%)	4 (3.88%)	7 (2.39%)
Should	3 (7.14%)	6 (4.02%)	15 (14.56%)	24 (8.21%)
<i>Total</i>	42 (4.82%)	149 (17.10%)	103 (11.82%)	292 (33.52%)

The highest and the lowest frequencies of identified modal auxiliaries were 17.10% and 4.82% in the political and economic editorials respectively. "*Would*" with 114 occurrences in English editorials, was the most frequent modal auxiliary (39.04%), while "*Would*" had 23 occurrences in economic editorials. "*Will*" with 4 occurrences was the lowest (1.36%).

Persian modal auxiliaries

In the corpus of Persian editorials four modal auxiliaries with 121 cases of occurrences were identified, which made 19.32% of all the incidences of hedges. The frequency of identified modal auxiliaries was the most in the political editorials (38.01%). With a total of 88 occurrences, توانستن /tævanestæn/ which corresponds to English modal auxiliary *can/could* was the most frequent modal auxiliary in the Persian editorials (72.72%). This modal with 33 cases of occurrences (27.27%) had the highest frequency in the social editorials. ممکن بودن /momken bodæn/ which corresponds to English modal auxiliary *may/might*, was the next most frequent modal auxiliary in the Persian editorials. This modal made 12.39% of all the incidences of modals in Persian editorials, out of

which 66.66% were observed in the political editorials. Table 4 indicates the share of each modal auxiliary in each topic in the Persian editorials.

Table 4
The frequency of occurrence of modal auxiliaries in Persian editorials

Modal aux.verb	Political	Economic	Social
توانستن (can/could)	31	24	33
ممکن بودن (may/might)	10	3	2
خواستن (will)	3	5	4
بایستن (should /must)	2	0	4
Total	46	32	43
	38.01%	26.44%	35.53%

The identified categories of parts of speech

In the verb category, the highest distribution of this category belonged to English political editorials (6.08%) whereas the Persian editorials, in each topic, revealed similar frequency of this category (5.75%). Table 5 indicates the information about the full verbs considered as hedges in the Persian and English editorials in different topics.

Table 5
Frequency of occurrence of full verbs by language and topic

Full verbs	Political		Economic		Social	
	English	Persian	English	Persian	English	Persian
Languages						
Nonfactive reporting	15	5	8	16	7	3
Tentative cognition	17	26	11	15	8	23
Tentative linking	21	5	3	5	8	10
Total	6.08%	5.75%	2.52%	5.75%	2.64%	5.75%

The information related to the adverbs considered as hedges in the English and Persian editorials and the total number of hedges shared by each topic are summarized in Table 6.

Table 6
Frequency of occurrence of different types of hedge adverbs in Persian and English editorials

Adverbs Type	Political		Economic		Social	
	English	Persian	English	Persian	English	Persian
Languages						
Probability adv.	15	12	7	8	5	23
Indefinite freq. adv.	6	11	2	19	8	19
Indefinite degree adv.	6	12	5	7	9	8
Approximative adv.	31	29	12	45	33	13
Total	6.65%	10.22%	2.98%	12.61%	6.31%	10.06%

In the category of adverbs, frequencies of hedging devices were 10.22% in the English and 6.65% in the Persian political editorials,

respectively. Table 7 summarizes the information and observations on the incidence of different kinds of adjective hedges in the English and Persian editorials.

Table 7
Frequency of occurrence of different adjective hedges by topic language

Adjective Type	Political		Economic		Social	
	English	Persian	English	Persian	English	Persian
Probability	0	0	0	0	2	0
Indefinite freq.	1	0	0	0	2	0
Indefinite degree	3	0	1	0	2	0
Approximative	0	0	0	0	0	0
Total	0.45%	0	0.11%	0	.068%	0

The results of investigating the incidence of different kinds of adjectives in the English and Persian editorials revealed that the highest frequency of adjectives belonged to English social editorials (68%), while the Persian ones enjoyed no category of adjectives.

The obtained results on the occurrence of different kinds of nouns in the English and Persian editorials indicated that the highest incidence of nouns was in the Persian editorials (95%), whereas the English social and economic editorials had the lowest frequency of nouns.

Miscellaneous hedges

Other than categories identified as hedges and discussed so far (modal auxiliaries, verbs, adverbs, adjectives, and nouns) there were some other incidences of hedgings which in function and form were not similar to the mentioned categories. Thus, these devices were grouped under the title of "miscellaneous hedges."

In the examined Persian editorials 20 types of this hedging with 163 tokens which made 26.03% of all the hedges were observed. Among these "if clauses" were the most frequent (48.78%).

Ten different types of miscellaneous hedges in the English editorials with a total of 156 tokens were identified. This group made 17.91% of all the hedges observed in the English editorials.

Discussion

Although there were similarities in the categories of hedging devices observed in the English and Persian editorials, significant differences between the frequencies of hedges in the two languages were noted. The findings of the study revealed that the English editorials were more heavily hedged than the Persian ones. Indeed, as hedging deals with vagueness, indeterminacy and doubt, English authors seem to apply more hedging devices than Persian writers as confirmed by Davoodifard (2006).

The next factor investigated in this study was that of hedges by topic variation. The obtained results showed that the English political editorials were slightly more hedged than the social and economic ones. Also, hedging in the Persian economic editorials was more frequent than the social and political ones which means the nature of the topic can account for the variations observed in the use of hedges in various topics in the two languages. The categories of hedges employed in each topic and language and the functions associated with the use of these devices in their own context were also other points of contrast between the two languages and the three topics.

One possible explanation for the observed variations in the frequencies of hedging devices can be related to the fact that Persian authors seem to be more assertive than their English counterparts, and English writers to be more concerned about the interpersonal functions performed by hedges, while Persian authors are not. Although Wierzbicka (1999) contends the idea that Western cultures are more assertive than the Oriental ones, the findings in this study showed that in journalistic discourse, English authors seem to be less assertive than their Persian counterparts, though they may be more assertive in other settings.

Alternatively stated, although noticeable variations was observed in the use of hedges in the editorials of each language, the most important issue was the language differences which, following Hyland (1997), are attributed to the cultures of English and Persian communities.

The concept of culture-specificity as developed Hyland (1997) refers to the ideological schema which controls each community's self-identification, knowledge, goals and conduct. The community members' use of language can reflect traces of their community-specific culture. Therefore, writings of authors of editorials to be characterized by their native language, discourse community values and norms. English authors heavily hedge their writings with a variety of devices, as confirmed by Atai and Sadr's (2008) findings, different from Persian editorials. Persian editorials in general are less frequently hedged than English editorials and the types of devices used in them are fewer compared to their English counterparts as supported by Davoodifard, (2006). This indicates the differences in the perceptions of members of different cultures about employing relevant discourses for expressing their intentions. Apparently English editorial writers limit their responsibility toward what is said and avoid being wrong imposing their views on the addressees and, thus, increase the probability of acceptance by the audience as Brown and Levinson (1987) consider hedging as "a primary and fundamental method of disarming routine interactional threats" (p. 146). Accordingly, it seems that English editorial writers are

concerned with the affective nature of their discourse, and this can be related to their awareness of cultural factors, the way they perceive themselves in relation to other members of the society. According to the data, the English writers seem to conceal a point against a thrust, and thereby mitigate their claims. This can be related to the point that because of impreciseness of an unhedged proposition, all the necessary information can not be presented (Varrttala, 2001).

Although Persian editorial writers use fewer hedging devices and somehow are more frank than their English counterparts, this could not mean that Persian writers want to show more authority or are impolite. It seems that their perception of society and of cultural factors is utterly different from their English counterparts. Another reason for the differing use of hedges by writers may be linked to the culturally determined paradigms and frameworks that influence writers' rhetorical choices.

The findings of this study confirms and gets support from the findings of many investigators who have documented that differences in cultural background can account for the variation of such linguistic features as hedging. Vassileva (2001) and Burrough-Boenisch (2005), for instance, assign NS vs. NNS variations in the degree of commitment to the different rhetorical culture and educational traditions. Also, Dahl (2004) argues that national culture affects the written discourse conventions and is the main cause for differences in texts across languages. Thus, it is inferred that appropriate interpretation of hedges depends on understanding cultural matters.

Several other explanations can be categorized as discursal considerations influencing the frequency of occurrence of hedging. The hedging phenomenon as dealt with in this study is linked to the concept of epistemic modality. Variations in the use of this linguistic feature between English and Persian newspaper editorials can be viewed from both linguistic and sociological perspectives. The English community welcomes hedging in writing because un-hedged and assertive

statements imply that what the author says has to be accepted as a fact, and thus there would be no room for others' opinions and personal ideas. This value as a conviction in discourse was observed in all of the English newspaper editorials examined in this study. In Persian, however, this expectation as a value is treated differently. For example, the findings revealed that the frequency of the usage of modal auxiliaries, which help writers to reduce their commitment to the truth value of the propositions by changing "what is" into "what may/can, etc.", in English editorials, were higher than those in the Persian editorials. For instance, *might*, with 43 occurrences out of the 292 incidences of modal auxiliaries observed in the English newspaper editorials, comprised 4.39% of all the hedging cases. This modal in Persian, */momken bodæn/*, comprised 2.39% of all the incidences of identified hedges in the Persian editorials. Consistent with Falahati's (2004) finding, it was observed that while English authors were mainly concerned with the affective nature of their discourse, their Persian counterparts were not. It can be inferred that English editorial writers are more concerned about the interpersonal functions performed by hedges. Besides, according to Fairclough (2003), modality features in discourse are important in texturing both personal and social identities, which illustrate how the speaker / writer perceive themselves in relation to other members of the society.

Conclusion and implications

The analysis of the English and Persian editorials revealed that the English editorials were more heavily hedged than the Persian ones. This might be explained by language and topic variations which can be attributed to cultural differences between the two communities. Besides, another explanation relates to discursal considerations. As for the implications of the study, students can benefit from courses in which they have opportunity to investigate and discover the appropriateness of hedging roles and are made aware of the conceptual, cultural, social and psychological factors underlying them.

Salager-Meyer (1995) proposes some reading and writing classroom exercises to empower the young readers to learn about hedges and to help their comprehension. This can also be helpful for learners' in writing, and approximating their writing to the target community norms. Cultural misunderstandings and pragmatic failures in this area will be prevented or at least reduced. In the same line, Mauranen (1997) suggests that the inability to use hedges in a native-like fashion is a question of language skill. So, teaching materials which introduce relatively simple taxonomies of hedging devices might be useful in so far as they provide non-native speakers with basic tools for expressing different degrees of commitment. Thus, ESP/EAP writing and reading courses are likely to be beneficial to learners if they consider textual hedging devices across various topics.

Received 12 January, 2009
Accepted 23 September, 2009

References

- Árvay, A. & Tanko, G. (2004). A contrastive analysis of English and Hungarian theoretical research article introductions, *IRAL*, 42, 71-100.
- Atai, M. R. & Sadr, L. (2008). A cross-cultural study of hedging devices in discussion section of applied linguistics research articles, *TELL*, 2 (7).
- Brown, P. & Levinson, S. C. (1987). *Politeness some universal in language use*. Cambridge: Cambridge University Press.
- Brown, P. & Levinson, S. C. (1978). Universals in Language Usage: Politeness Phenomena. In Esther N. Goody (Eds.), *Questions and Politeness: Strategies in Social Interaction*, (pp.56-289). Cambridge: Cambridge University Press.
- Burrough-Boenisch, J. (2005). NS and NNS scientists' amending of Dutch scientific English and their impact on hedging, *English for specific purposes*, 24, 25-39.
- Clyne, M. (1991). The sociocultural dimension: the dilemma of the German- speaking scholar. In T. Sheen & R. Whitely (Eds.), *Subject-oriented texts: Languages for special purposes and text theory* (pp. 49-68). Berlin and New York: Walter de Gruyter.
- Dahl, T. (2004). Textual Metadiscourse in research articles: A marker of national culture or of academic discourse? *Journal of Pragmatics*, 36(10), 1807-1825.
- Davoodifard, M. (2006). *A Contrastive Analysis of Hedging in English and Persian Research Articles: Linguistic and Cultural Variations across Languages and Disciplines*. An unpublished thesis, University of Esfahan, Iran.

- Fairclough, N. (2003). *Analyzing Discourse: Textual analysis for social research*. London: Routledge.
- Falahati, R. (2004). *Contrastive study of hedging in English and Farsi academic discourse*. MA unpublished Dissertation, Department of Linguistics, Victoria University, Canada.
Retrieved January 2006 from:
<http://web.uvic.ca/ling/graduate/theses-dissertations.htm>.
- Hyland, K. (1995). The author in the text: Hedging scientific writing. *Hong Kong Papers in Linguistics and Language teaching*, 18. Retrieved July 5, 2005, from:
<http://sunzi1.lib.hku.hk/hkjo/view/4/400116.pdf>
- Hyland, K. (1997). Scientific claims and community values: articulating an academic culture, *Language and Communication*, 17(1), 19-31.
- Hyland, K. (1998). *Hedging in Scientific research articles*. Amsterdam/Philadelphia: John Benjamins.
- Hyland, K. (1999). Disciplinary Discourse: writer stance in research articles. In C. N. Candlin and K. Hyland (Eds.), *Writing: Texts, Processes and Practices* (pp. 99-121). London: Longman.
- Lackoff, G. (1982). Categories and Cognitive Models (*Series A. Paper No. 96*). Trier: L.A.U.T.
- Lackoff, G. (1986). Frame Semantic Control of the Coordinate Structure Constraint, *CLS* 22, part 2, 152-167.
- Leech, G. (1983). *Principles of Pragmatics*. London: Longman.
- Markkanen, R. & Schröder, H. (2000). *Hedging: A challenge for pragmatics and discourse analysis*. Lehrstuhl für Sprachwissenschaft, II. Retrieved July 1, 2005, from:

[http:// www.sw2.euv-frankfurt-o.de/Publikationen/ Hedging/markkane.html](http://www.sw2.euv-frankfurt-o.de/Publikationen/Hedging/markkane.html)

Mauranen, A. (1997). Hedging in Language Revisers' Hands. In R. Matkkaen and H. Schröder, (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.

McCawley, J. D. (1981). Fuzzy Logic and Restricted Quantifiers, *Philosophy and Grammar*, 101-118.

Myres, G. (1989). The pragmatics of politeness in scientific articles, *Applied Linguistics*, 10, 1-35.

Salager-Meyer, F. (1994). Hedges and Textual communicative function in medical English written discourse, *English for Specific Purposes*, 13, 149-170.

Salager-Meyer, F. (1995). *I think that perhaps you should. A study of hedges in written scientific discourse*. Retrieved April 18, 2006 from: <http://www.msu.edu/~abbottb/formal.htm>

Skelton, J. (1988). The care and Maintenance of Hedges, *ELT Journal*, 42(1), 37-43.

Swales, J. M. (1990). *Genre analysis: English in academic and research setting*. Cambridge: Cambridge University Press.

Tahririan, M. H. (1995). *Reading Journalistic English*. Tehran, Iran: Payame Noor University.

Varttala, T. (1999). Remarks on the communicative functions of hedging in popular scientific and specialist research articles on medicine, *English for Specific Purposes*, 18(20), 177-200.

- Varttala, T. A. (2001). *Hedging in scientifically oriented discourse: Exploring variation according to discipline and intended audience*. Unpublished Ph.D dissertation, Unverstiy of Tampereen Yliopisco, Finland. Retrieved Nov. 2004 from: <http://acta.uta.fi/pdf/951-44-5195-3.pdf>
- Vassileva, I. (2001). Commitment and detachment in English and Bulgarian academic writing, *English for Specific Purposes*, 20, 83-102.
- Vold, E. T. (2006). Epistemic modality markers in research articles: a cross- linguistic and cross-disciplinary study, *International Journal of Applied Linguistics*, 16(1), 61-87.
- Wierzbicka, A. (1999). *Emotions across language and cultures: Diversity and universal*. Cambridge: Cambridge University Press.
- Zadeh, L. (1972). Fuzzy-Set: Theoretical Interpretation of Linguistic Hedges, *Journal of Cybernetics*, 2 (3), 4-34.