# Hedging as an Index of Gender Realization in Research Articles in Applied Linguistics

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## Abstract

Despite the importance of hedging in academic productions, its use in different disciplines and genres has been given little attention (Hyland, 1998; Crystal, 1995). More precisely, the role of different genders as contributors to this social phenomenon (i.e., research articles) has been taken as neutral, as if gender is inconsequential in identity construction. The studies done in English suggest that females' language is proportionately more hedged. So hedging has been claimed to be a strategy that is used mostly by female writers than male writers. To examine the role of gender in text construction, we investigated the linguistic realizations of the identities reflected in male and female authors' preferences for hedging words in the research articles in applied linguistics. To this end, 130 single-authored research articles written in the field of applied linguistics were examined. The results revealed significant differences between two sets of articles in using hedges. Statistical analysis revealed that female authors' articles were significantly (i.e., *p*-value of 0.000) more hedged as compared with those of males. Furthermore, it is suggested that the hedging words that are used in these articles could be used as an index through which gender of the author is identified.

**Keywords**: Gender, Research Articles, Hedging Words

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# 1. Introduction

Gender "as a social construction" (Eckert & McConnell-Ginet, 2003, p. 14; Paltridge, 2006) and identification and interpretation of possible differences in linguistic styles between males and females have been the focus of attention by researchers since 1970s (Trudgill, 1974; Lakoff, 1975; Zimmerman & West, 1983; Cameron & Coates, 1989; Cameron, 1990; Tannen, 1990; Labov, 1991; Holmes, 1992; Wray et al., 1998; Eckert & McConnell-Ginet, 2003; Holmes & Meyerhoff, 2003; Argomon et al., 2003). Sunderland (2006) has summarized the gender-related studies chronologically: Haas (1944), Lakoff (1975), Milroy (1980), Fishman (1983), Tannen (1990), Bucholtz (1999), Nelson (2002) among others. In a seminal work, Holmes (1992) has also listed other studies highlighting gender related differences in speech.

In these studies, consistent differences have been reported in various aspects of language used by males and females. For example, women's language has been characterized as non-assertive and polite (Lakoff, 1975), more supportive and rapport building while men's language is typically considered as report-giving and informative (Tannen, 1990). McElhinny (2003) also stressed that "gender often becomes a key tool for signaling differentiation". Even women's language is believed to be facilitative, affiliative, cooperative, affective, more polite, and more other-oriented whereas men's language is said to be competitive, control-oriented, more factual and status-oriented (Holmes, 1995, 2003). Talbot (2003) emphasized the role of gender stereotypes in construction of gender ideologies arguing that stereotypes of 'women's language' are so resilient that their repeated contestation does not change 'their commonsensical status'. This position was backed by Cameron (2007) highlighting the deficiency of men's speech in comparison to women's speech. Finally, from interactional perspective,

Bucholtz (2003, p. 53) emphasized the role of gender "as a phenomenon whose meaning and relevance must be analytically grounded in […] participants' own understandings of the interaction" in conversational analysis. Tannen also believed that it would be fine to conclude that among other factors, gender's influence on language use is undeniable across cultures, (as cited in Fasold & Conner-Linteon, 2006, p. 363). In sum, all these studies endorse the idea that "gender differences are […] ethically indefensible, yet nearly universal", as the philosopher John Dupre puts, (as cited in McElhinny, 2003, p. 26).

The focus of related studies in the literature is versatile. Most previous works have focused on phonological and pragmatic differences between female and male language use in speech (Trudgill, 1974; Holmes, 1990), informal writing (Mulac et al., 1990), fiction and nonfiction textbooks (Argomon et al., 2003), and electronic messaging or web logs as a new genre of computer-mediated communication (Herring & Paolillo, 2006). Sociolinguists, on the other hand, have reported different styles of language use in speech in statistical terms. For instance, females have been speculated to be excessive users of hedging in communication while males have been speculated to be more assertive users and interrupters particularly in mixed gender interactions (Holmes, 1984). Tannen (1990) suggested that females talk about relationships more than males. They use more compliments and apologies and use more facilitative tag questions (Holmes, 1984, 1988). In the second language acquisition context also Spanish learners of English" either frequently fail […] to identify hedges in the L2 or consider […] them as negative evasive concepts," (Alonso, Alonso, & Mariñas, 2012, p. 47).

Generally, the differences found between males' and females' language use appeared to be centered on interaction in speech. However, speech is not the sole means of communication and the comparative studying of the differences

in males and females' writing modes has been neglected. As a result, the literature lacks gender-based studies of difference in written (academic) language.

Communication among the members of a discourse community, such as applied linguists, normally occurs via research articles. "A great deal of research has now established that written texts embody interaction between writers and readers," (Hyland, 2005, p. 173). Research articles as means of communication between writers and readers have been well established as a source of study.

The significant role of hedging in academic writing and research articles has been documented in different studies (Hyland, 1994, 1996a, 1996b, 1998; Salager-Meyer, 1994; Vande-Kopple & Crismore, 1990; Varttala, 2001). "Authors in research articles do not present sheer description of knowledge and do not just report their findings straightforwardly, rather they take into account potential audience opposition," (Varttala, 2001, p. 67). Myers (1989) believes that hedging in scientific writing is an important device in interaction between authors and readers of *exoteric* audience (wide) and *esoteric* audience (smaller) and writers take these two audiences into consideration by down toning their claims.

The linguistic variation, especially in the use of hedges among western cultures has mainly been explored cross-linguistically (Crismore et al., 1993; Vassileva, 2001) and cross-disciplinarily (Varttala, 2001) and just marginally with respect to gender (Vold, 2006). However, the review of previous studies reveals that, in general, research article contributors' gender has been considered as ineffective and inconsequential in their identity construction.

Hedges are linguistic rhetorical strategies exploited by authors to modify their amount of commitment to the truth value of their claims. Ghazanfari and

Abassi (2012) examining the Persian prose reported that hedges have mainly threat-minimizing and politeness functions. Hedges have been investigated in different disciplines and research articles (Hyland, 1996, 1998, 2005; Varttala, 2001). For example, the amount of hedging devices used by authors is believed to vary from hard to soft disciplines and from culture to culture. Ansarin and Seyyed Bathaie (2009) compared medical science research articles with applied linguistic ones with respect to hedging devices, and reported that research articles in the latter discipline are heavily hedged than the former. They chose applied linguistics with the justification that hedging is an indispensible part of this particular discipline.

Hedging is said to be mostly a "lexical phenomenon" (Hyland, 1998, p. 104). Lexical realizations of hedges identified by Varttala (2001) were taken as the bases of comparison in this study. Among other categories of hedging devices such as those mentioned by Holmes (1988) and Hyland (1996, 1998), Varttala's categorization (2001) is more comprehensive as it includes all possible lexical hedges. This classification of hedging devices consists of five main categories of *Modal auxiliaries*, *Full verbs*, *Adverbs*, *Adjectives*, and *Nouns*.

Even though the importance of hedging in academic context has been emphasized (Hyland, 1996a, 1996b; Salager-Meyer, 1994; Skelton, 1997), its use, frequency and distribution in different disciplines and genres, specifically written discourse, has been given less attention (Hyland, 1998; Crystal, 1995).

The present study mainly is an attempt to bridge the gap in the study of gender difference in the amount of hedges used by male and female authors in production of formal written texts, particularly research articles. Precisely, in this study, possible variation of males and females writing styles is explored by examining the frequency of lexical hedges in research articles. The rationale for

this study comes from Bhatia (1993) claiming that applied linguistics deals, on one hand, with theory, and on the other, with pedagogical observations, so it falls somewhere on the middle of these two extreme poles of soft and hard sciences. Accordingly, it is hypothesized that this field could be a good example of genre type in which linguistic behavior would be evenly distributed by both genders.

## 2. Method

### 2.1. Material

The descriptive design of the study determined the nature of data and the nature of data collection. Initially, a list of single-authored research articles (RAs) was made. So co-authored research articles were excluded. The data were drawn from a number of leading English journals: *Applied Linguistics, Language Testing Journal, International Journal of Applied Linguistics, Language Learning, Language Testing, System, and English for Specific Purposes, The Modern Language Journal, Linguistics and Education,* and *Text.* The selected journal articles have been published in the field of applied linguistics from 1998 to 2006. Maximum effort was made to include only the articles that had similar designs and covered similar areas of research. The authors' affiliation was also used as a guide for selection of the articles for the study.

### 2.2. Procedures

First, we checked for the word counts of the articles, all having between 4000 to 7000 words. From a list of single-authored RAs, the final sample consisting of 130 RAs (65 written by male and 65 by female researchers) were randomly

selected. The data included the body section of articles, i.e., complete running text from which bibliographies, quotations, examples, extracts were excluded. The data comprised of 407423 words written by male and 425587 words by female researchers. Two PDF files, one for male-authored articles and another for female-authored articles were made.

Initial word count was done mainly by Adobe Acrobat 10 on a computer. First, we ran a frequency count on the hedging words in each file. Whenever needed, each word was critically examined for being hedge by a substitution test i.e., by substituting the word with *perhaps* to make sure whether it was a hedge or not. Accordingly, we counted all the words functioning as hedge and excluded non-hedged words from the data. Since in the process of arriving at pure words of each author we had to exclude all kinds of words not written by the author, for example quotes, the word count of some of the research articles decreased drastically. For further statistical analyses we normalized the variation in total word count of each article by calculating the proportion of occurrence of each hedge out of the total counts of words for both males and females separately. As the length of the articles varied, the most suitable statistical method for the analysis of our data was proportion analysis. For this analysis we used the statistical software called Minitab (version 16) for the analysis as it could provide us with the two way comparison of the data belonging to male and female writers.

One hundred and eighty nine hedging words were submitted to computer to be tallied up in each article. Each word was studied in its context to avoid polypragmatic bias. The context of each word was viewed as a concordance and after evaluation, its function as a hedge was confirmed. The criteria used to identify hedging words in the texts were like the criteria used by Vold (2006, p. 65). Two criteria used are: 1) they explicitly qualify the truth-value of certain

propositional content; 2) they should be lexical and grammatical units (not the phrases, paragraphs used to tone down the findings).

It is important to note that, despite the convenience of the electronic format, hard copies of all research articles were also utilized throughout the study. Sometimes manual processing and evaluation were needed to include the counts which might have not otherwise been considered as hedge and vice versa. The frequencies and proportions were then tabulated so that the results could be easily compared and analyzed. All the neutral and polypragmatic words were excluded from the study.

## 3. Results

Although according to Varttala (2001) there are numerous ways in which hedging may be realized in English like certain modal auxiliaries, some lexical elements with related meanings as well as non lexical hedging devices, namely clausal elements, questions, etc., he has pinpointed lexical phenomenon, by endorsing Hyland (1998), as being the first and foremost hedging devices in academic writing and has categorized them as five main categories. The hedging words in our linguistic corpus could be classified into certain categories as follow.

**A. Modal Auxiliaries:** We have included *can, could, may, might, must, should, will, and would* as the auxiliaries that create hedged meaning. Determining *will* as a hedging device is said to be somehow problematic as it has been distinguished in two ways by scholars (Palmer, 1979; Coates, 1983; Hyland, 1998; Varttala, 2001), ones as an expression of futurity, next, as an indication of epistemic modality (predictability meaning). "Occurrences of [*will*], with future reference, commonly involve a component of uncertainty," (Coates, 1983, p. 179). This is because referring to the future "inevitably

involves some uncertainty or doubt" (Hyland, 1998, p. 116). However, we have included those instances of *will* which convey mainly uncertainty and have excluded those instances which merely convey futurity. Consider examples below for uncertainty of meaning where the claims are far from being certain.

1. "… this provides evidence that learners *will* be more accurate in the self-assessment process if the criterion variable is one that exemplifies achievement of functional skills on the self-assessment battery …" (Ross, 1998, *Language Testing Journal*, male author).
2. "… This type of processing *can* serve a *somewhat* different function in L2 lexical acquisition; however, because semantic networks for target L2 words *often* already exist, at least *to some extent*, successful initial acquisition of L2 words often *may* depend more on allocating processing resources toward the form …" (Barcroft, 2003, *System*, male author).
3. "… Although some psychometricians *might* not consider this contribution to the variance noteworthy, considering the large number of potential factors (including motivation, intelligence, aptitude, attitude, anxiety, personality, learning style, confidence, beliefs and so on) which *might possibly* relate to level, a group of language learning strategies such as this, which accounts for more than 10% of the variance …" (Barcroft, 2003 *System*, male author).

*Might* is often mentioned as a common way of expressing hedging and is said to be more tentative and hypothetical than *may.*

4. "If it *could* be demonstrated that individuals with certain psychological characteristics *tend* to adopt certain types of CSs, then this *would* give some insight into the psychological processes that lie behind those CSs" (Littlemore, 2001, *Applied Linguistics,* female author).

**B. Full Verbs:** According to Varttala (2001) auxiliaries are not the only devices of hedging. Varttala (2001) categorized full verbs as three subcategories of a) *Non-factive Reporting Verbs*, b) *Tentative Cognition Verbs*, and c) *Tentative Linking Verbs*. The first subcategory includes most of the *performative verbs.* As Hyland (1998, p. 120) pointed out they "perform, rather than describe the acts." *Suggest, imply, claim,* and *propose* are examples of the case. *Tentative Cognition Verbs*, the second category of full verbs, refers to "the mental status or processes of those whose views are reported rather than to linguistic activity," (Varttala, 2001, p. 122). Altogether, 35 verbs have been examined in this subcategory. The third category, *Tentative Linking Verbs*, includes 3 verbs of *appear* (example 4), *seem,* and *tend.* They "express tentativeness concerning […] the ideas put forth by the authors," (Varttala 2001, p. 123).

5. "… It *appears* that self-assessment of this skill is *relatively* more valid than that of lesser developed skills …" (Ross, 1998, *Language Testing Journal*, male author).

**C. Adverbs:** The subcategories of adverbs are *Probability Adverbs, Adverbs of Indefinite Frequency, Adverbs of Indefinite Degree, and Approximative Adverbs.* These subcategories are not on the basis of syntactic aspects rather they are on the basis of potential meaning, Varttala (2001). The first subcategory, probability adverbs, includes those that "express some degree of doubt" (Quirk et al., 1985, p. 620), including *likely, perhaps, possibly,*

*potentially, probably, seemingly, tentatively, etc.* The adverbs of the second subcategory (e.g., *frequently, occasionally, often, seldom, sometimes, usually*) pose inherent indefiniteness in the meaning conveyed. The third subcategory includes those adverbs that "seek to express only part of the potential force of the item concerned" (Quirk et al., 1985, p. 598), such as, *considerably, fairly, greatly, largely, mostly, partly, relatively, slightly, significantly, etc.* Finally, *approximative* adverbs as the last category consists of those items that "express an approximation to the force of the verb" such as, *about, almost, approximately, around, closely, just, roughly, nearly, etc.* (Quirk et al., 1985, p. 597).

6. "… Somewhat *surprisingly perhaps*, in light of the evidence of their almost ubiquitous use, there is little support for the use of recasts in the teacher training manuals or teachers' guides associated with communicative and comprehension-based language teaching. Indeed, there are …" (Barcroft, 2003*, System*, male author).
7. At the start of the new millennium we are *perhaps* less blind to the fact that much social life, including our educational life, is gendered in some way, but the *claim* still holds. (Sunderland, 2000, *language Testing Research*, female author)

**D. Adjectives:** According to Varttala (2001) there are some adjectives found to express tentative, uncertain, and not quite precise characteristics of nouns or actions. They are categorized as *Probability Adjectives*, *Adjectives of Indefinite Frequency*, *Adjectives of Indefinite Degree*, and *Approximative Adjectives*.

*Probability adjectives* like *plausible, potential, probable, suggestive, etc.*, express different degrees of probability concerning the certainty or accuracy of what is being said. The second subtype, *Adjectives of Indefinite Frequency*, expresses tentative quantifications where it is not exactly necessary or possible to quantify the phenomenon. The items are exemplified as *frequent, common,*

*typical, rare, popular, etc.* The third subcategory, *Adjectives of Indefinite Degree*, by which the authors "invest the information presented with the degree of certainty…" (Varttala, 2001, p. 137), include adjectives like *fair, large, little, main, significant, relative, slight, small, substantial, etc.* Finally, *Approximative Adjectives*, as the last subtype, are just *approximate, close, gross,* and *virtual.* According to Varttala (2001, p. 138) these adjectives allow the writers to "draw attention to the approximate nature of the information presented."

8. "… A *plausible* reason for this slight advantage for reading *may* relate to the extent of experience learners have with second language reading. In many foreign language contexts, exposure to the written word predates extensive opportunities for listening and speaking practice, and thus *may* influence to some degree the relative accuracy of self-assessment. This experience factor is explored in detail below. …" (Ross, 1998, *Language Testing Journal*, male author)

**E. Nouns:** There are some nouns with potentially hedging meanings. Varttala (2001) identifies three general types of nouns: a) *Non-factive Assertive Nouns* like *argument, assertion, claim, implication, prediction, proposition, suggestion, etc.*, b) *Tentative Cognition Nouns* like, *assumption, belief, estimation, inference, notion, interpretation, view, etc.*, and c) *Nouns of Tentative Likelihood* such as *chance, likelihood, possibility, probability, opportunity, etc.*

9. "… is of interest in terms of *possible implications* for effective teaching and learning …" (Griffiths, 2003*, System*, female author).

In fact, there might be other means of hedging in English but as stated earlier the focus of this study is examining the frequencies of the above mentioned five lexical categories in the field of applied linguistics.

By shifting attention from linguistic analysis of the data to the statistical analysis we could initially summarize the data in the form of overall counts of hedging words used in males and females RAs as illustrated in Table 1. In general, 31561 hedging words were retrieved in 130 RAs studied in this research. Hedging words for males as a whole were 16152 out of 407423 total word counts of males' RAs, while 15191 hedges out of 425587 words were found in females' RAs. In the first glance, as shown in Table 1, and Table 2, the frequency and proportion of hedging words used by male authors is higher than those used by female authors, but it should be noted that total word counts are varied too across genders.

**Table 1. Overall Distribution of Hedging Words in 130 Research Articles**

| | Hedging words | Proportions | Total word counts |
|---|---|---|---|
| Males' RA | 16152 | 3964 | 407423 |
| Females' RA | 15191 | 3569 | 425587 |

The total word counts of each article varied from about 4000 words to almost 7000 words. As noted earlier the length of all the articles was controlled to be roughly the same at data selection stage. Nevertheless, as the direct or indirect quotations and examples or excerpts were removed from the data, the word counts of some of the articles decreased. Finding the proportion of each hedge helped us to normalize occurrence of a specific hedge and create relatively the same condition (i.e., frequency per 100,000).

**Table 2. Raw and Proportion Values of the Various Hedging Categories in RAs**

| Categories | Raw frequency in males' RAs | Raw frequency in females' RAs | Proportion in males' RAs | Proportion in females' RAs |
|---|---|---|---|---|
| **All hedges** | 16152 | 15191 | 3964 | 3569 |
| **Modals** | 4279 | 4063 | 1050 | 955 |
| **Full verbs** | 3821 | 3621 | 938 | 851 |
| **Adverbs** | 4395 | 4027 | 1079 | 946 |
| **Adjectives** | 2435 | 2125 | 598 | 499 |
| **Nouns** | 1222 | 1355 | 300 | 318 |

Two proportion tests were run to test whether the difference between the proportions of hedging words used in males' and females' RAs was significant or not. The first test revealed that the difference is highly significant. The result of the two tailed test as given in Table 3 revealed that males and females used hedges differently as the p-value is 0.000. Subsequent one-tailed directional tests proved that the females used more hedges than the females as the p-value 0.000 is significant in the case of males<females.

**Table 3. Proportion Analysis of Five Hedging Categories in Male's and Female's RAs**

| | Proportions | | Two-Tailed | One-Tailed Males>Females | One-Tailed Males<Females |
|---|---|---|---|---|---|
| | *Ms' RAs | *Fs' RAs | P-Value | P-Value | P-Value |
| All hedges | 3964 | 3569 | 0.000 | 1.000 | 0.000 |
| Modals | 1050 | 955 | 0.000 | 0.999 | 0.001 |
| Full verbs | 938 | 851 | 0.003 | 0.999 | 0.001 |
| Adverbs | 1079 | 946 | 0.000 | 1.000 | 0.000 |
| Adjectives | 598 | 499 | 0.000 | 1.000 | 0.000 |
| Nouns | 300 | 318 | 0.872 | 0.428 | 0.588 |

*Ms= Males, *Fs= Females , ** p < .05

Then, we analyzed different hedging categories of *modals, full verbs, adverbs, adjectives,* and *nouns* one by one. Similarly, the proportion of each

category per 100,000 was computed for each male and female group. The results are presented in Table 3. The two tailed analyses of main categories of hedging words indicated that the difference between male and female RA writers is significant in the first four subcategories of *modals, full verbs, adverbs,* and *adjectives* as the p-values are significant in all cases except in the case of *nouns,* where no significant difference was observed.

## Modals:

The first category of hedging words is *modals* consisting of seven modal auxiliaries. The modals, i.e., *can, could, may, might, should,* and *would* were taken as hedging devices. Each word was searched separately for both genders. The total count as well as proportion (per 100,000 words) of each word in two groups was calculated.

The analysis of the two proportions of 1050 and 955, as shown in Table 3, revealed that the two groups are not equal in the use of *modals* as the p-value of two-tailed test is significant, i.e., 0.000. Subsequent one-tailed test checking males<females proved significant with p-value of 0.001.

The greatest preferences of both male and female authors in *modals* category were the use of *may and can,* although males used them more frequently. Proportion value of *may* was 265 for males and 233 for females. The proportion for *might* was almost the smallest for males and females (90 versus 69). This finding differs from the finding of Varttala (2001, p. 105) in which *might* had the greatest share in Economics, while in Medicine it had the second most share and Technology being the fourth. However, in this study, *may* had the greatest frequency and *might* had the lowest frequency. Among modals *may* was used by both groups maximally; however, male authors used it more than female authors.

### Full verbs:

Secondly, the occurrence of hedging *full verbs* was examined in both groups. As a whole, male and female authors of RAs appeared to differ in the use of full verbs, i.e., proportion of 938 for males (per 100,000) against the proportion of 851 for females. As summarized in Table 3, two-tailed proportion test revealed that the difference between the two groups was highly significant. Also p-value of 0.001 of the directional one-tailed test furthermore confirmed that male authors have used significantly fewer hedges than their female counterparts.

### Adverbs:

Thirdly, the category of *adverbs* makes the second most frequent type of hedging devices. They all lower the force of the verb they modify. In general, three subcategories of adverbs were analyzed. A similar proportion analysis with a p-value of 0.000 in a two-tailed test shows that the difference between the groups prevails in this case as well. The p-value of 1.000 in the case of one-tailed test, examining greater use of hedges by males than females, shows that it is not significant. Rather the opposite was proved, similar to the previous categories.

### Adjectives:

Fourthly, *Adjectives* made the third most common hedging category in this study. In this case too, men's use of hedging adjectives versus women's use with the proportion values of 598 versus 499 was examined by the two-tailed and one-tailed tests, both resulting in the p-value of 0.000. It indicated that, first, the difference between the groups was significant, and second, females opted for more adjectives to hedge. See Table 3 for details. Unlike the adverbs in

which there was even distribution among the subcategories, four subcategories of adjectives had uneven distribution.

## Nouns:

The final category, and the only category of hedges in which no difference was found was the category of *nouns*. As shown in Table 3, the p-value of 0.872 of the two-tailed test is not significant. Furthermore, none of the two-tailed tests checking *males > females* or males *< females* proved significant. As the use of hedging nouns was proved not to be different among the groups, we decided to analyze the subcategories of this main category. It is noteworthy that the most frequent hedging nouns were *tentative cognition nouns*. However, the ways males and females used *tentative cognition nouns* and *nouns of tentative likelihood* were proved not to be different as p-values of the two-tailed tests in neither case was significant. But difference was significant only in the case of *Non-factive assertive nouns* with the p-value of 0.043 as reflected in the two-tailed test shown in Table 4.

The most common item used by both groups was '*possibility'*. The least common items were *inclination* and *likelihood.* Nouns like *chance* and *appearance* were most preferably used by female authors, while male authors used *opportunity* more than females in this subcategory.

**Table 4. Proportion Analysis of Subcategories of Nouns as Hedge**

| Subcategories of nouns as hedge | Proportions | | Two- Tailed | One-Tailed Males>Females | One -Tailed Males<Females |
|---|---|---|---|---|---|
| | *Ms' RAs | *Fs' RAs | P-Value | P-Value | P-Value |
| Nonfactive assertive nouns | 73 | 53 | 0.043 | 0.978 | 0.022 |
| Tentative cognition nouns | 176 | 192 | 0.677 | 0.339 | 0.680 |
| Tentative likelihood nouns | 51 | 73 | 0.082 | 0.041 | 0.959 |

* Ms'= Males', Fs'= Females' ; **$p < .05$

In sum, the analyses revealed more frequent use of hedging by female than male authors in the case of *modals*, *full verbs*, *adverbs*, and *adjectives*. The exception was in the use of *nouns* where no difference was observed. Another observation was that RAs in applied linguistics appeared to be hedged mostly through *modal auxiliaries*, more preferably by female authors.

## 4. Conclusion

It is gradually being accepted that examining the role of gender is crucial in the studies related to our social world. So addressing the issue and providing scientific evidences for the influence of society on the biological world and explanation of possible linguistic differences among two subculture groups of male and females is a welcome issue now (Eckert & McConnell-Ginet, 2003, p. 13). Their productions might always be similar in some aspects but unique in others. The main aim of this study was finding the dominant patterns preferred by male and female authors in RAs.

The results of the study indicated significant differences in terms of use of hedging words. Previous studies addressing spoken language suggested that females used hedging in a variety of ways more than males (Lakoff, 1975; Holmes, 1984; Robson & Stockwell, 2005). The reasonable hypothesis was that in writing too, more precisely in RAs, the language would become hedged more by female authors than RAs written by male authors. The findings supported the idea that at written level, more precisely in research articles, the texts produced by females found to be more hedged than the texts produced by males.

Finally, it could be concluded that femininity and masculinity can be performed by language in social context. The findings support the idea developed by Stockwell (2005), suggesting that non-assertiveness, hedging,

inviting agreement and support seem to be more the linguistic behavior of female authors. The results of the present study indicate that female authors detached themselves more than male authors from the commitments to the truth value of their findings. If we are allowed to equate this detachment which is reflected through the increased use of hedging, then, we could conclude that hedging is mostly an indicator of femininity. These authors appeared to reveal their gender identities by their marked preferences for hedging devices. In general, nothing would be more precise than Litosseliti's statement (2006, p. 3) as saying: "our gender identities (our sense of who we are as gendered subjects) are largely constructed through the discourses we inhabit and negotiate".

The processes through which different writing styles develop and the way they relate to their social context remain a topic for further research. It also remains for further studies to determine the extent to which the distinctions found in this study remain consistent across cultural and chronological lines. In short, "...texts are therefore examined for what they reveal not about the author's gender but about the author's [dynamic] assumptions, about gender- or, more accurately, about the representation of gender that text offers up" (Holmes & Meyerhoff, 2005, p. 56).

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