Exploring the Differences Between Iranian Women and Men Academic Article Writings According to Mood and Modality

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Abstract: The role of using modals in writing, especially in research articles is so important that by them writers can convey their ideas and views in their writings, thesis or articles. Researchers also can get more information from articles through evaluating these markers and can specify their views about the articles. The function of meta-discourse in interpersonal relationship, texts and articles is as an appointment role that helps both readers and writers. In this paper various articles from different disciplines written by both genders were studied. That is, 60 articles from 2 academic disciplines written by Iranian language learners like Medicine and Social Sciences were studied, where for each field 30 articles written by both genders were selected and studied. *The* analysis was done by ANOVA test to compare the frequency and distribution of the meta-discourse devices. The result of the test indicated differences between the selected disciplines i.e. Biology and Applied Linguistics and also male and female writers.

Key words: Exploring · Iranian women · Biology · Applied linguistic

INTRODUCTION

Modality is a semantic concept that covers notions such as possibility, probability, permission, ability, volition, necessity and obligation. The class of modals is in many languages both syntactically and semantically highly irregular and unpredictable: modals frequently have idiosyncratic conjugational patterns and are subject to highly specialized syntactic rules [1].

According to some researchers; [2-5] there are some important agents which the researcher attend them; so, one of these factors which has been cleared to consider during the process of discourse conception is the presence of interlocutors, of an audience. The concept of audience is so important and controversial. The classical concept of audience as a homogeneous group of people has been debated and contested by several theorists.

Meta-discourses can show not only a speaker's uncertainty but a variety of social meanings. It has been detected that modals never state uncertainty, impression, warmth, or any other social function in the abstract.

They do so, only as they become mobilized in the concrete arenas of everyday talk, as forms of situated practice [6]. According to [7-8], meta-discourses are seem to play a crucial role in producing and creating conversational solidarity.

Modality draws attention to the fact that expressions do not just commitment ideas, but also the author's attitude to them and to readers [9].

Sometimes there are some situations which in there the researchers try to get more attention on writers' findings. This concentration on meta-discourse can be motivated by the growing recognition that academic authors do not simply report and explain their findings in an objective or impersonal methods, but actively draw from a range of rhetorical strategies rooted in their own disciplines and socio-cultural milieus to organize and classify arguments, provide evidence and evaluate claims to convince their readers [10-15].

September 9, 2013As [8] modals are response to the potential negotiability of claims and an indication of the author's acknowledgement of disciplinary norm of the special argument. They work to stabilize and balance objective information, subjective evaluation and

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interpersonal negotiation and this can be an important and powerful persuasive factor in gaining acceptance for claims.

Modal verbs are used by academic authors to show and express underlying attitudes and strength of commitment or claim which means that modals can be used to avoid opposition to a proposition [8-16].

One of the important functions of modals is to contribute to a relationship by altering and changing readers to the author's perspective and view towards both propositional information and to the readers themselves [8-16].

As [16] the important reason for paying attention to text linguistic cues or devices is that use of a meta-language in the analysis of the language itself may facilitate access to the propositional content and construct meaning. Finally, Science students tend to prefer an approach to textual analysis that draws upon concrete points taught, if possible in an explicit, rational and objective way. And modal verbs are the common strategy for mitigating and modulating academic discourse.

According to [16], modals can be used to state the writer's attitude(s) to both proposition (i.e. content) and readers (i.e. peers). The term "hedge" is utilized by [17-20] "Hedge?...? like possible, might and perhaps?...? represent explicit qualification of the writer's commitment. This may be to show uncertainty and indicate that information is presented as an opinion rather than accredited fact, or it may be to convey deference, modesty or respect for colleagues' views".

According to [21], the following example is a positive critical act which the single italicized and underlined text contains evaluative material on the metadiscoursal plane: "Reader of ELT *may* be especially *interested* in the long chapter centered on the Ruskin-Whistler controversy". In above example the modal verb *may* is used to soften slightly the power and force of proposition stated and expressed by the author by adding the extra meaning of tentativeness. The meaning of the expression becomes something like: "it is possible but not guaranteed that reader of ELT will be interested in the aspect of the book commented upon." But the important factor here is that without this modal item, a hedging plane or devices, the prediction would have been expressed in very categorical terms [Readers of ELT will be especially interested in…], showing the author's strong belief in it. In above example the model item *may* can also

be put or situated on the metadiscourseal plan since the epistemic meaning added by it affects, or modifies, the meaning of the entire proposition without adding or annexing any new propositional content to the text [21].

Research Question and Research Hypotheses
Research Question1: Is there any difference between female Iranian women and men academic article writings according to mood and modality in research articles of Biology and Applied Linguistics?

Null Hypotheses1: There is no difference between female Iranian women and men academic article writings according to mood and modality in research articles of Biology and Applied Linguistics.

Literature Review
Native and Non-native Writers: According to [19] there are important differences between the use of modal verbs by native writers and the use of modal verbs by non-native writers. "Can" is the modal verbs, most frequently utilized by non-native Spanish writers writing their articles in English. Then "will" is used, followed by "May" and then "would" and "shall". The tentative member ("should") is the least frequently used of all modal verbs in this sub-corpus. About boosters, results show that Spanish Business Management Scholars make use of a wider range of boosters and contains moreboosters per 1000 words than their international North American peers. "Will" is the most common boosting modal verb in the two corpora. Those tokens of "will" expressing future time were not included in the counts. Of course the use of boosting is different in different cultures. Modal verbs which express the writers' certainty and confidence are more common in the Business Management Research Articles in the Spanish-Speaking academics than English-Speaking ones. Results show that there are clear differences between the use of modal verbs by native English writers and the use of modal verbs by non-native Spanish writers. There is mismatch in the expression of epistemic meaning between some modal verbs: "can" is utilized instead of "May" to express possibility. So there are different and important differences among cultures and languages in using modal verbs; that is, native and non-native writers use modals for different goals [22].

Native speakers of English were seen and observed to do the opposite, i.e. hedge their claims heavily in the discussion section of their articles while using more emphasizing expressions and appearing more confident in the concluding section of their texts [23-24]. Hedging is an important and crucial and necessary part and feature of EST/EAP (English for Science and Technology/ English for Academic Purposes) writing….The famous practice of hedging in scientific writing is due to and because of the fact that every attempt to explain a given phenomenon in a particular manner is open to an alternative explanation [25].

Stance-Taking and Role of Interaction: The role of interaction in academic articles is important for the function it does when constructing new knowledge. If the new information written or presented by the writer was not assimilated by the audience or reader and understood as such, it would not contribute to the development of the discipline involved. In order to make this knowledge, various and plans come into play. Linguistic conventions and plans, among which boosters are included, appear in the discourse to convince the audience of the certainty of its expressions [24].

When readers are notified about the relationship between text form (i.e. language conventions of various academic disciplines), audience and social context, they can understand and learn the meta-discourse markers, modals [16].

Of course it seems that the awareness of contextual socio-cultural plans and devices like context for different academic genres or reader/writer roles, are considered important and fundamental for successful reading [16].

According to Mauria (2008), language proficiency of learners and academic writers may yet be another important factor in the writers' choice of linguistic features. Hedging is a crucial discourse part that students and learners must learn if they want their ideas to be taken completely and seriously in the academic community.

Modality and Sexuality: Most researchers believe that there is a difference between female speakers than male [26].

Sometimes the position like social status causes that women and men use modals more or less, that is, women use modals more frequently in their language than men [27].

According to Inga and [28] the general assumptions promoted and developed by earlier researchers regarding women's and men's use of hedging and boosting linguistic plans are:

- Women's speech is often specified by a more frequent use of intensifiers, down toners and modals; as a result, it has more positive/negative politeness strategies;
- Even if hedging and boosting planes do not show quantitative differences, they are used by men and women for arriving to different communicative aims (e.g. status vs. cooperation).
- Lakoff (1975 as cited in Broad bridge, 2003) discussed the differences between women and men's language, considering them as differences, not abnormalities. Lakoff believed that women and men employ different and various meta-discourses for writing their articles.

One of the crucial differences in women and men's speech is that men have been found to dominate conversations through the use of interruptions and overlaps and that the amount of these conversational irregularities that took place rose significantly as men were talking to women (Braodbridge, 2003).

Broad bridge (2003) concludes that women use the most active listening devices, but men use less; men speak more and women speak less; women use more modals which signify tentative speech and men use more vulgar terms.

According to Holmes (1995 as cited in Dixon & Foster, 1996), women's use of modals states interpersonal warmth and not linguistic tentativeness, it is typically men who employ modals to convey imprecision and incertitude.

Dixon and Foster (1996) believe that based upon data about modals distribution in the speech of men and women researchers have constructed bold theoretical claims-most commonly that women's language is indecisive and deficient.

Lakoff (1975 as cited in Dixon and Foster, 1996) argued that women's speech lack authority since, in order to become "feminine", women should learn to adopt an unassertive style of communication; that is, they must learn and know to denude their expressions of declarative power. Lakoff coined the phrase "women's language" to point to a group of linguistic devices that serve this function, including hesitations, intensive adverbs and tag questions. Modals form part of this group.

MATERIALS AND METHOD

In this study, the researcher has tried using [8] for studying and searching the modals and also researcher has utilized 60 academic articles from 4 disciplines across gender and ANOVA test, since there will be three variables; writers (female/male), meta-discourse (modal verbs) and branches(Applied Linguistics and Biology) in different disciplines. According to the researcher, the result can help language teachers, professors and students in different disciplines to improve writing course.

Procedures of Data Analyses: As it was mentioned before, the whole 60 articles from two disciplines were read and analyzed carefully the researcher tried to study the differences of male and female according to mood and modality through the disciplines so, to find it, researcher separated all modals according to Disciplines and Genders, then counted them separately, that is, in each discipline males were counted separately from females and then in each discipline all research articles were counted without attending to gender to find the modality in two disciplines,so because of this, each discipline had three counts, two for genders; male and female and one for discipline.

To find the word frequency through the gender, the researcher used this formula:

$$\text{Word frequency} = \frac{\text{Total number of modal verbs} \times 1000}{\text{The total words in articles}}$$

DISCUSSION

Mood and Modality with Regard to the Disciplines and Genders: Academic writing is created by paying special attention to the specific constraints or conventions of the different disciplines. These constraints condition the resources used by academic writers in their different disciplines. Scholar work is reflected in academic discourse through a selection of linguistic elements and this selection is made by following the conventions or rules of a particular discourse community. These conventions might ensure academic writers that their work will actually be recognized by readers and accepted by their colleagues in that discourse community. As [23] states, "different disciplines may not be altogether uniform when it comes to frequency, forms and variety of modals". In this way, modals in Medicine may not present the same occurrence as in Linguistics or Chemistry.

In this research the researcher selected RAs from four disciplines that could be considered dramatically different in terms of their nature of their data of study, i.e. Linguistic and Biology. The reason for this variety in the discipline selection lies upon the possibility that we may find considerable differences in the occurrence of modals. For the analysis, the researcher has selected the model of meta-discourse suggested by [14].

Researcher's hypothesis of study expected not to find divers rates of frequency and through digital tools he has been able to scan the corpus in search for these interactional elements. The results happened to confirm these differences in the occurrence of modality. The examples shown in this research are illustrative of the different approach taken in relation to the different nature of the data used in each of the four disciplines.

As it was mentioned before, the goal of this research was to study the modality through the gender in different disciplines, so Table 1 shows the descriptive statistics in terms of gender differences. So the results show that the distribution of modals in females' articles is less than males by. 41126 whereas the distribution of modals is.45925 in males' articles. The means of word frequency based on gender can be seen in Figure 1.

Table 1: Statistics of word frequency based on the gender

Gender	N	Range	Minimum	Maximum	Mean	Std. Deviation
Female word frequency	30	1.284	.120	1.404	.41126	.228318
Male word frequency	30	1.005	.072	1.077	.45925	.274135

Note..N: The number of genders

Table 4.2: Descriptive statistics based on the discipline

Group	N	Range	Minimum	Maximum	Mean	Std. Deviation
Linguistics	30	.806	.090	.896	.33451	.196527
Biology	30	1.332	.072	1.404	.52456	.319545

Note. N: The Number of Articles in Each Discipline

Table 3: Differences between genders in utilizing meta-discourses in each discipline

Field		N	Mean	Std. Deviation	Std. Error	Mean
Applied Linguistics word Frequency	female	15	1.0447	.57210		.14772
	male	15	.9623	.62379		.16106
Biology word Frequency	female	15	1.6449	1.03379		.26692
	male	15	1.3860	.93804		.24220
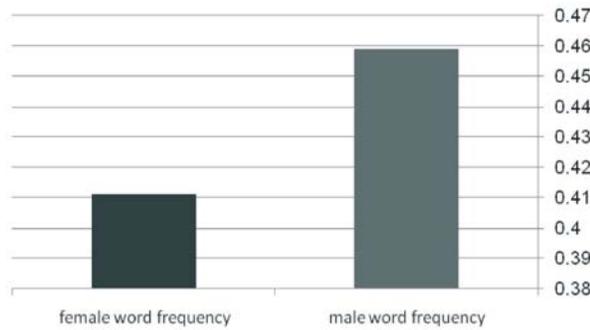
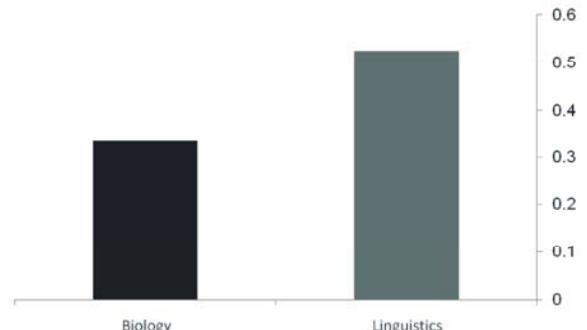Fig. 1: Frequency of words by males and females

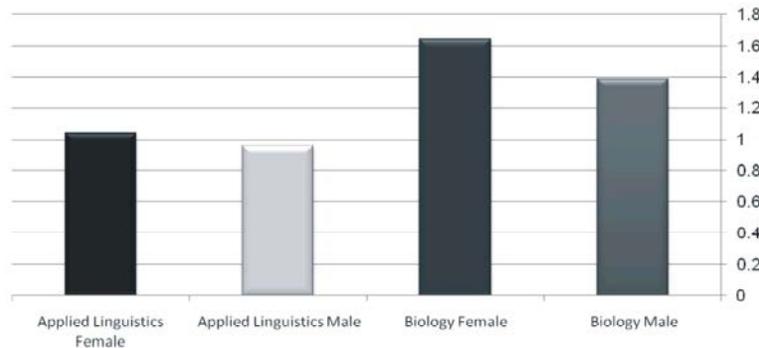
Fig. 2: Distribution of words in two disciplines4

Fig. 3: Word frequency according to gender and discipline

Table 2 shows the descriptive statistics with regard to the disciplines, i.e. two disciplines (Linguistics and Biology). As it can be seen in the table the number of articles in each discipline is 30; 15 written by females and 15 written by males. But there are important differences between disciplines in standard deviation, i.e. in all disciplines, standard deviation is more than 0.2, but in Linguistics standard deviation is less than the others, i.e. 0.196527. The mean also is the like, i.e. Linguistics has low mean than the other disciplines. In Biology, the frequencies of modals are.52456, but in Linguistics these frequencies are.33451. As it can be seen the difference between these two disciplines is.19005.So based on the mean values, the null hypothesis is rejected. Based on their mean values, the differences between two genders in the writing the articles among the two disciplines are also indicated in Figure2.

Figure 3 modals frequencies in terms of gender and disciplines.

Figure 3 shows the meta-discourse frequencies according to gender and disciplines. It means that each discipline is determined by gender. As it can be seen all females in Biology and Applied Linguistics the story is different. That is, females used more meta-discourse than males. And as it shows, females in Applied Linguistics and Biology used more meta-discourse than the others. Of course, it is important to mention that this analysis was done per 1000 words, i.e. the percent (%100) was changed to per 1000, since the number of the words in each article were not equal; the researcher had to consider the value per 1000words to normalize the data.

CONCLUSION

Academic writing is created by paying special attention to the specific constraints or conventions of different disciplines. These constraints condition the

resources used by academic writers in their different disciplines. A scholar's work is reflected in academic discourse through a selection of linguistic elements and this selection is made by following the conventions or rules of a particular discourse community. These conventions might ensure academic writers that their work will actually be recognized by readers and accepted by their colleagues in that discourse community. As Varttala (1999; 248) states, "different disciplines may not be altogether uniform when it comes to frequency, forms and variety of modals".

In this research the researcher selected research articles from two disciplines could be considered dramatically different in terms of the nature of their field of study (Biology and Linguistic). The reason for this variety in the disciplines lies upon the possibility that we may find considerable differences in the occurrence of meta-discourse.

The examples shown in this research are illustrative of the different approaches taken in relation to the different disciplines.

Academic writing has the main purpose of spreading new knowledge and discussing old. Rhetoric becomes, thus, fundamental and important in the construction of this genre since it strongly contributes to a successful dialogic negotiation of knowledge. In addition, rhetoric strategies also become a key in the supporting argumentation behind new statements presented in the research articles. Furthermore, it is inevitable that during this process authors wish to promote themselves. In doing so, they will also defend the statements present in their texts thanks to rhetorical strategies. Contrary to some claims made by scholars, that academic writing should always remain as objective and neutral as possible, academic writing very often seeks to demonstrate a viewpoint based on scientific research. Interactional elements such as modal verbs strongly contribute to the consecution of these purposes. This immediately produces engagement and complicity on the readership.

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