Gender and the use of Linguistic Hedges in Computer-Mediated Communication: An Examination of JESSE, the Library/Information Science Education Forum

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Gendered language traits have been studied for decades, particularly the use of attenuated or "softening" language and hedges. There is continued debate over how hedges are used and by whom are they used more often. Computer Mediated Communication (CMC) has been found to be much like spoken language, and therefore holds many of the same language traits, such as the use of hedges. This study examined the Library/Information Science Education Forum listserv, JESSE, for use of the hedges 'perhaps' and 'I guess' in order to find if there was a difference in usage by gender. It was found that men use just as many, if not more hedges than women do. This supports the theory that a listserv will adopt the language practices of the majority gender, particularly in "feminized" disciplines such as librarianship.

Introduction

From an early age, males and females are taught different language practices. It starts within the first days of childhood. People ask, "Is it a boy, or a girl?" Only after they know the answer can they begin talking and interacting with the child – typically soft and gentle with girls, rougher and more aggressive with boys. This continues to play out throughout childhood, and consequently, adulthood.

Not surprisingly then, gendered language has been a topic of discussion and debate for linguists, sociologists, and countless others. In 1975, American linguist Robin Lakoff broke ground with the book *Language and Woman's Place.* Lakoff defined what she believed to be a "woman's language." She believed that women's speech lacked authority, due in part by women's fulfilling of the "feminized" role, where women must not use assertive language. Women's language was filled with super polite forms, tag

questions, empty adjectives, etc. One trait that Lakoff felt was typical of women's language was the use of hedges. A hedge is a word used to soften language and be indecisive, non-committal, tentative, etc. Some of the most commonly used hedges include: 'perhaps', 'probably', 'I guess', 'sort of', and 'I mean'.

With the introduction of computer-mediated communication (CMC) many hoped and believed that there would finally be a level playing field in terms of communication. CMC was thought to be gender-neutral and democratic. The language differences Lakoff defined would become irrelevant. Research quickly dispelled this belief by showing that there are indeed gender differences in CMC, and in technology in general. Men and women participate in CMC with different styles, of which language is a part. The language used in CMC has often been compared to that of verbal communication – carrying with it many of the same traits. One of these traits is the use of hedges. Many researchers have noted the use of hedges in CMC, though few studies have focused solely on the issue. The purpose of this research will be to look at the relationship between gender and the use of the hedges "perhaps" and "I guess" in the electronic discussion listserv JESSE.

A brief history of hedging

Lakoff noted there were qualities of woman's speech that were different than men's. Among these differences was the use of attenuated language when speaking. This came through the use of such things as tag questions, "…that is right, isn't it?", and hedges, "perhaps this is the case". Lakoff believed that these qualities led to a powerlessness of woman's language. However, Lakoff's statements came through observation, intuition, and her own personal opinion – and it was left to others to show empirical evidence.

Since that time, researchers have questioned not only the existence of gender differences in hedging, but also Lakoff's interpretation of their "social and linguistic functions" (Dixon & Foster, 1997). Eliasoph (1987) questioned the assertion that women's language is powerless. Stating that the use of hedges does

not always signify a lack of power, but instead an ability by women to "play the game" of conversation in a mixed gendered group. She believes that men and women have different values and priorities when communicating – and therefore use different "language moves" to participate.

Coates (1993) also found that hedges have multiple functions in women's language. They can be used to express doubt, but also to be sensitive to other's feelings, and avoid playing the expert, thereby continuing a discussion, instead of stopping it in its tracks. These are generally seen as more "feminized" communication qualities. Givon (1990) also found that hedging is used to tone down language that a higher authority might disagree with, but is used by both men and women. Holmes has done extensive research on the topic of hedging. (1984; 1986; 1990; Holmes & McConnell-Ginet, 1997) In her studies she has found that it is in fact men, not women, who were using more attenuated language to show uncertainty.

O'Barr and Atkins confirmed Lakoff's beliefs, but with several points of clarification (1980). They called the use of hedges a "powerless" language – but not necessarily "women's" language. They found that while women hedge more often, men do hedge, and that social standing often plays a role. Therefore, the theory would have it that the more power a woman has, the less she will hedge. Women have not historically held power in the world of technology. Perhaps it is not surprising that Herring and others have found again and again that women hedge more in CMC then do men.

Gender, Language and CMC

As noted before, with the inception of the Internet came the belief that CMC would serve as a democratizing force, leveling the playing fields for all involved. It would serve as a genderless way for people to communicate. Preliminary studies supported the notion that hierarchies were flattened, and wider participation by members of a group using CMC as opposed to face-to-face communication was

found (Kiesler, Siegel, & McGuire, 1987). However, the honeymoon period of CMC quickly passed, as those who held power learned their way around the medium and made their way back to the top.

Men and women have different styles of posting to the Internet. Studies have found that men use adversarial language, while women display features of attenuation and hedging. Some feel that since men and women have different styles of communicating via CMC, women are often put at a disadvantage if their gender is clearly known. Studies have shown that women would change their gender identification if they could in order to mask their gender, yet men have little desire to do so. Researchers found that 81% of men would keep their gender identification, while 81% of women would change theirs. This is telling in how women feel they are perceived in CMC simply for being a woman (Jaffe, Lee, Huang, & Oshagan, 1999).

Men's language includes "strong assertions, self-promotion, rhetorical question, challenges and humor". Features of women's language include "attenuated assertions, apologies, questions, personal orientation and support"(Herring, 1993). Women are also discouraged from participating in CMC by men posting longer and more aggressive messages (Herring, 1993, 1994, 2003). She finds that in asynchronous modes such as listserv discussion lists and Usenet groups – women participate less, introduce fewer successful topics and receive fewer public responses than men.

Researchers speak of women needing to be "bilingual" as far as gendered language is concerned. Women are able to shift their language when either talking with men, or perhaps when masking their gender in an online setting (Jaffe et al., 1999). Other research has show this to be the case for men as well, in fact it is believed that Internet discussion lists simply take on language attributes of the dominant gender. Therefore most members of the non-dominant gender on any given list end up style mixing. Taking on some attributes of the dominant style while keeping features of their "native" style. It is easier for men to maintain a distinct style than it is for women. Women must use some features of "men's" language in

order to be taken seriously – but some of women's language in order to not be seen as aggressive or unpleasant (Herring, 1993, 1994, 2003; Herring, Martinson, & Scheckler, 2002).

Spoken Language and CMC

Spoken language has been compared to CMC in many studies. Baron's (1998) study found email to be much like spoken speech. She calls listservs a "close cousin" of email and finds the qualities are often the same. Hedges are used often in verbal communication and therefore it is a logical assumption that they will be found in CMC as well. Baron acknowledges, "Linguistic properties of speech and writing vary from context to context…such that writing may assume the characteristics of speech." In fact we often then behave as if CMC, like speech, is ephemeral.

Noblia (1998) agrees that CMC "endows writing with the most characteristic features of the oral language". Hiemstra (1982) finds that much of the same "face-saving" maneuvers of face-to-face communication also takes place in CMC, again drawing a strong comparison between CMC and verbal speech. Rice & Love (1987) report that CMC systems can facilitate the exchange of "socio-emotional" content – something that was not believed in the early years of CMC. However, human beings are social creatures, and therefore work this content into their CMC interactions. Jaffee, et al (1999) also believes it is a highly interpersonal medium capable of socio-emotional and relational discourse.

Gender, CMC and Hedges

The similarity between CMC and spoken language allows researchers to study linguistic elements of CMC, such as the use of hedges. Winograd and Milton (2000) found that hedging does occur in listservs, though for a variety of reasons. They give five categories of use: things we don't know, equivocational support ('but'), insecure recommendations ('maybe'), insecure admissions, and defining the intangible (kind of like, sort of like).

Herring has also identified the use of gendered language in CMC, and she, like Lakoff, believes that women do use more hedging (Herring et al., 2002). Herring finds that females use more hedges and expressive language (1993). These findings provide support for gender differences in discourse style among discussion groups on the Internet. She and other researchers have found that CMC does have distinctive gender qualities and that it is not the democratizing gender-free space that people once thought it might be (Hall, 1996; Herring, 1993, 1994, 1999, 2003; Mahoney & Knupfer, 1997; We, 1993). Research has shown that even when women are not dominating the conversation, men will sometimes perceive it as such. When this occurs, men threaten to leave the list, begin hedging more, and eventually abandon the topic all together (Herring, 1999). Some may see this as a perception of loosing control and power – which in turn promotes the use of "powerless" language.

The Present Study

As CMC is being used more and more in the field of Library and Information Science (LIS), it is important to gain a greater understanding of what effects it may have. As noted earlier, CMC has not been the democratizing force that some people hoped it would be. Male patterns of language and dominance have been widely found. Herring, however, believed that women were representing themselves well in feminized disciplines such as librarianship (1994). Research into CMC in LIS has shown this is not the case (Sierpe, 2000, 2001). Herring also found that women use much more attenuated language then men do, though believes that the language of the group often tends towards the gender of the majority. What then will happen in JESSE, an LIS educators' listserv?

The current research will examine the relationship between gender and the use of the selected hedges, 'perhaps' and 'I guess' in the LIS listserv JESSE. JESSE is a moderated listserv used primarily by LIS educators and scholars. Messages posted range from a variety of discussion topics, to more formal job and conference announcements.

This study will be done by looking at two sets of data; one set coming from a group of discussions first identified and studied by Sierpe (2001) taking place between April 1998 and August 2000, and the second coming from a range of yearly data from 1998-2002. As hedging language is generally used in topical conversations, it is expected that a greater percentage of hedges will be found in the discussions than in the list as a whole.

Variables

Conceptually, a hedge can be defined as: In pragmatics and conversational analysis, refers to terms and expressions that are hearer-oriented and express tentativeness, evasiveness or approximation, e.g. 'sort of', 'kind of', 'more or less.' Considered by some to be used more by women than men (Gibbon, 1999).

Operationally, this study will be limited to the examination of two hedges – 'perhaps' and 'I guess' (or close variations – such as 'I would guess'). It will not be the mere presence of the word, but instead will look towards the usage of the word as a true hedge, i.e. softening, face-saving, self-doubting.

Methodology & Data Collection

In order to conduct this research, a great deal of research on hedging language was done. The JESSE listserv was initially surveyed to determine if there was a use of hedges at all. Once it was clear that hedging language was used, four hedges were selected for analysis. 'Perhaps', 'kind of', 'sort of', and 'I guess' (or variations such as 'I would guess'). Although 'sort of" is one of the most 'popular' hedges for research – it was not found in great numbers in JESSE. Nor was 'kind of'. This may be because the language of 'sort of' and 'kind of" is less formal, and while JESSE can be seen as somewhat casual, it is a professional listserv. Participants were much more likely to use the hedge 'perhaps' and 'I guess' in their discussions, and therefore were used in this study.

Data was collected in two parts. First, building on a set of previously researched postings (Sierpe, 2001), the hedges "perhaps" and "I guess" were collected for five distinct discussion topics ranging in time from April 1998 to June of 2000. These were chosen in order to look more closely at the percentage breakdown of the use of hedges between men and women within active topical discussions. The number of messages in each thread was compared – with only one discrepancy found (see limitations and problems). The hedges were searched for using the search capabilities of the JESSE listserv archive. Each message was then read for content to ensure there was no duplication and that the word usage was, in fact, a hedge.

While this did provide a small data set, worthy of analysis, a second survey of the postings was also taken. This data was collected from year to year, from 1998-2002, again searching for 'perhaps' and 'I guess'. This time period was chosen for several reasons. First, it gave a larger view of the use of hedges over the same time period as the discussions were occurring – allowing a more complete look at that time period. Secondly, it allowed for data to be drawn from more recent postings to get a larger sense of the use of hedges over time. A team of three people, one with a background in linguistics, collaborated to determine if each use was a hedge or not.

Difficulties and Limitations

This research was limited to one particular Library and Information Science (LIS) listserv. While two data sets were collected, it was not within the scope of this project to collect complete data in terms of a yearly breakdown on how many posts were made by males, and how many by females. This would have allowed for a greater percentage breakdown of how often male and female participants hedge within the listserv over time.

In terms of the discussions chosen for analysis, there was one discrepancy found between Sierpe's (2001) findings and this study. Sierpe reports 43 messages found for the "Information Behavior" discussion.

This study only identified 41 messages. Also, the gender of all participants was determined using standard naming conventions, as well as a variety of searches of personal and professional web sites.

The complicated and sometimes ambiguous nature of hedges was also challenging. Linguists have noted this in verbal communication, and researchers often listen for inflection and then place the usage in context. CMC gives no benefit of inflection. Investigators can look for punctuation usage, but this is often misused in CMC, or not used at all. Investigators must then use their own intuition, knowledge, and experience to determine the use of hedging language. If hedges were found in quotations of others or forwarded messages, they were not included.

Findings

For the hedges selected, there was no great variation in percentage of usage between men and women in either of the datasets examined. In the topical discussions, women hedged just slightly more than men at 13.5% - or 10 out of 74 messages *(See Tables 1 and 2).* Men hedged 13.1% of the time, for a total of 13 hedges out of 99 messages. Both genders used the hedge 'perhaps' much more often than "I guess", with 78.3% of the hedges found using 'perhaps.' In two discussions there was a distinctive gender difference in hedging. In 'Students who can't write', women hedged over 30% of the time in comparison to less than 4% of the time for men. Conversely, in 'Information Behavior', men hedged 20% of the time, whereas women did not hedge at all. Overall, there was a 13.3% usage of hedges in the topical discussions.

TABLE 1. Use of hedges 'Perhaps' and 'I guess' in Selected Topical Discussions

Discussion topic	Total No. of messages	Male authored messages	Female authored messages	**Male use of Perhaps**	**Female use of Perhaps**	**Male use of I Guess**	**Female use of I Guess**
Students who can't write	50	27	23	**1**	**5**	**0**	**2**
"Information Behavior"	41	30	11	**5**	**0**	**1**	**0**
Selecting a publication venue	33	17	16	**3**	**1**	**0**	**0**
Is your thesis for sale?	24	16	8	**1**	**0**	**0**	**1**
Problem students	23	10	14	**1**	**1**	**1**	**0**
Totals	**173**	**99**	**74**	**11**	**7**	**2**	**3**
Total % of use				**11.1%**	**9.5%**	**2%**	**4%**

TABLE 2. Percentage use of hedges 'Perhaps' and 'I guess' in Selected Topical Discussions

Discussion topic	Total No. of messages	Male authored messages	Female authored messages	**% of Male use of Perhaps**	**% of Female use of Perhaps**	**% of Male use of (I) Guess**	**% of Female use of (I) Guess**
Students who can't write	50	27	23	**3.7**	**21.7**	**0**	**8.7**
"Information Behavior"	41	30	11	**16.7**	**0**	**3.3**	**0**
Selecting a publication venue	33	17	16	**17.6**	**6.3**	**0**	**0**
Is your thesis for sale?	24	16	8	**6.3**	**0**	**0**	**12.5**
Problem students	23	10	14	**10**	**7**	**10**	**0**
Totals	**173**	**99**	**74**				
Total % of use				**11.1%**	**9.5%**	**2%**	**4%**

The second dataset yielded similar results in terms of usage of hedges (See Table 3). Both men and women were shown to use hedges, however it was men who used them more often. Only in the year 2000 did women outnumber men in usage, and then it was only by two. Overall men hedged 2.8% of the time and women hedged 2.18% of the time, for an overall 5%. This number is significantly less than those in the topical discussions. This is not surprising given the topical discussions were just that, discussions.

The second subset of data included all messages for each year. Therefore, the numbers included posts of a professional nature such as conference announcements, job postings, etc., where hedges are generally not found. It should also be noted that the participation in JESSE, in terms of number of postings, nearly doubled from 1998 to 2002. The amount of hedges nearly tripled in the case of 'perhaps', and doubled in the case of 'I guess'.

TABLE 3. Use of hedges 'Perhaps' and 'I guess' from 1998-2002, by year and gender

	Male use of 'Perhaps'	Female use of 'Perhaps'	Male use of '(I) guess'	Female use of '(I) guess'	Total hedges per year	Total messages per year
1998	13	12	4	3	32	643
1999	12	3	1	0	16	530
2000	11	11	3	5	30	824
2001	18	13	1	0	32	674
2002	41	35	8	3	87	1247
Total use	95	74	17	11	197	3918
Total % of usage	**2.4%**	**1.9%**	**.4%**	**.28%**	**5%**	

Discussion

These findings show, within the listserv JESSE, men hedge generally as much, and at times more, than women. This contradicts Herrings view that women hedge more often in CMC than do men (1994). These findings, while not supporting Herring, do support Holmes' research showing that men do hedge, and often more than women. The data also supports the research that says CMC has traits of verbal language (Baron, 1998; Himestra, 1982; Noblia, 1998).

The hedge 'perhaps' was used more often then the hedge "I guess". There are several possible explanations for this. First, different hedges are used in different ways; some are used to question, some as a sign of self-doubt, and some to soften opinions. 'Perhaps' can do all of these, but in a more academic sounding way then 'kind of' or 'sort of'. It was most often used to soften assertions or opinions – so that

speakers would not be seen as trying to play the expert or give orders, such as *"Perhaps the ALISE office staff could look for a site that was a little more…"* The speaker clearly wants ALISE staff to do this, but does not want to come across as ordering or demanding them to do so. Perhaps was also used to question and encourage further discussion, such as *"Perhaps our field has matured?"*

The lower usage of 'I guess' overall can also be explained. The use of 'I guess' is one clearly of self-doubt. While participants of JESSE did use hedges for self-doubting purposes as in, *"Well, perhaps it should,"* they do so in a less obvious way by using 'perhaps.' 'I guess' is announcing to the world that *'I' don't know*, 'perhaps' in many ways does the same thing, but may sound less hesitant. Interestingly, though not frequently used, women did use 'I guess' twice as often in the topical conversations, possibly showing less fear of admitting to not knowing something. Both genders appeared to use hedges in a variety of situations, though further research looking precisely into that matter would be useful.

One might first think that the usage of hedging may be more widely used in academia – where open discussion is supposedly heralded, and therefore people aren't taking a role as the expert and they are encouraging continued discussion. However, in Herring's study of a Linguistic listserv this was not the case (1993). Is it in fact something about the feminized profession of librarianship? It would make sense if the profession as a whole used more feminine language traits, but is this good or bad? Are librarians generally a more communicative and supportive group, or a disempowered group? "Perhaps," a little bit of both. Certainly questions for future research.

Potential areas for future investigation

There are many directions this research could take in the future. CMC is a perfect medium for a linguistic discourse study – mainly, because you have the words captured for you. Analysis must happen – but half the battle is complete. With CMC there is a rich dataset just sitting around every electronic corner. In terms of the study of hedging language and JESSE, it would be useful to see whether there is a gender

difference in terms of how and when hedges are used. Linguists have studied this in spoken language, and somewhat in CMC – as many scholars feel there is a strategic use of hedging language.

It is also widely thought that men and women use this language in different ways – for example men are thought to use it more for face-saving means, and women for community building and drawing people into the discussion. A deeper look into the particular uses of these "conversational maneuvers" in JESSE would then be useful to gain insight to the overall power struggles that occur in CMC. Another area of exploration could examine if any hedging variation occurs when participants address a particular gender. JESSE is a mixed gender group – and if a participant posts to the list they know that everyone is going to see it. However, many messages are responding directly to a particular message or person. Future research could look to see if men's use of hedges varies when responding to a male or female, and visa versa.

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