Gender Issues in Computer-Mediated Communications

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Abstract

This paper offers an exploratory analysis of the linguistic features of WebCT discussion postings by graduate and undergraduate students in a course on computer technology in language teaching. Based on research related to language and gender, it was hypothesized that men and women differ in the use of language with respect to qualifiers and intensifiers in computer- mediated communication. The results suggested that the WebCT discussion postings of students revealed some gender-related distinctions with respect to the use of linguistic qualifiers and intensifiers. However, despite the claim of previous research that women use more qualifiers, hedges, and personal pronouns, the associations were not strong. While men and women may use gendered language in some situations, in academic discussions, they did not talk as men or as women but as scholars.

Introduction

The field of computer-mediated communication (CMC) continues to generate interest from sociolinguists who are concerned with whether the traditional gender differences in face-to-face interaction are carried over into online discourse. Does the language used by males and females in CMC reveal gender-related differences? The goals of this paper are twofold. The first is to develop a linguistic profile of WebCT discussion postings by graduate and undergraduate students in a course on computer technology in language teaching in the spring semester of 2006. The second is to determine whether these postings reveal gender-related distinctions.

This paper begins with a review of relevant research on gender differences in CMC. This is followed by a theoretical review of computer-mediated communication. Next, features and benefits of using WebCT are outlined. The remainder of the paper is dedicated to an exploratory analysis of the corpus of WebCT discussion postings collected in the above-mentioned class, concluding with a discussion of whether WebCT postings mirror or depart from gender-based language differences.

Computer-Mediated Communication (CMC) and WebCT

CMC refers to a group of interpersonal communication systems used for sending messages to individuals or groups, mainly over the Internet via computer. CMC is classified into two different modes: synchronous or asynchronous. The *synchronous* mode of CMC requires participants to be communicating in real-time. The *asynchronous* mode does not require interlocutors to be online at the same time. It can be between two people, or one-to-one, or from one person to multiple interlocutors, or one-to-many (see Figure 1).

Web Course Tools (WebCT) is one form of the online phenomenon of computer-mediated communication used by colleges and universities to create entire online courses. It contains both elements of synchronous and asynchronous modes. WebCT allows an ordinary classroom to continue meeting beyond the class hours. Some of the types of tools and functions found within WebCT include: animation and audio/video, syllabus, chat, compiling, e-mail, discussions, links, and content modules. Users' interaction in online discussions will be the focus of this paper.

Gender Communication

Differences in the way men and women portray themselves in oral language have been the subject of "much debate and little consensus" (Cassell & Traversky, 2005, p. 6). Some have argued that gender differences may potentially affect or alter the interpersonal dynamics within a group (Graddy, 2004). Therefore, it is important to understand how such differences play out in spoken and written language and in CMC.

Figure 1. Types of CMC

| | Type | |
Mode	One-to-One	One-to-Many
Asynchronous	E-mail, WebCT	Bulletin boards, listservs, WebCT
Synchronous	Instant Messaging (IM)	Internet Relay Chat (IRC)
		Multi-user dungeons (MUDs)
		Multi-user object oriented (MOOs)
		WebCT chat

Note: Adapted from "Four Classes of CMC" (p. 4), Baron, 2003. *See you online: Gender issues in college student use of instant messaging.* Retrieved March 27, 2006, from http://www.american.edu/tesol/BaronSeeYouOnlineCorrected64.pdf.

Spoken Language and Gender

Most of the research about language and gender is based on the examination of spoken language, derived from "direct observation, interviews, or transcriptions appearing in large-scale corpora" (Baron, 2003, p. 9). Sociologists reported that females tend to speak in a less assertive manner than males, while males tend to speak in a more assertive manner. Other sociolinguists reported that women generally use conversation to facilitate social interactions, while men tend to use conversation to convey information (Holmes, 1993; Cameron, 1998). Baron (2003) illustrated the differences in the way men and women present themselves verbally:

> For example, women tend to use more affective markers (e.g., *I know how you feel*), more diminutives (e.g., *little bitty insect)*, more hedge words (e.g., *perhaps, sort of*), more politeness markers (e.g., *I hate to bother you*), and more tag questions (e.g., *We're leaving at 8:00 pm, aren't we?*) than do men. Men, on the other hand, are likely to use more referential language (e.g., *The stock market took a nosedive today)*, more profanity, and fewer first person pronouns than are women. (p. 9)

Lakoff (1990) considered men's language to be the "language of the powerful…it is meant to be direct, clear, and succinct" and women's language to be "nonpowerful or nonseeking of power, imprecise and indirect,

and more capable of expressing emotions" (p. 205). In addition to the preceding traits that Baron (2003) mentioned, the following are some of the characteristics that have been identified as women's language according to Lakoff (1990):

1. Women use more variety of intonational contours and intonation patterns that "resembles questions, indicating uncertainty or need for approval." (p. 204)
2. Women use more of adjectives that express emotion (e.g., *adorable, divine*).
3. Women use better grammar and fewer colloquialisms.
4. Women are more polite (*would you please, I'd really appreciate it if…*).
5. Women use forms that express vagueness (*so, such*). (p. 204)

Another way to illustrate the social function of language is to analyze or measure the amount of talking that takes place in any given conversation. In some cultures, it is often assumed that women talk more than men. But Holmes (1993) suggested that men, not women, tend to dominate public conversations in a mixed-gender setting.

Written Language and Gender

Only a small number of studies have been done with regard to gender differences in written language. Baron (2003) reported that "some of the data analyzed are historical in nature (relying heavily upon personal letters), while other data derive from large-

scale written corpora or experimental essay composition tasks" (p. 11). Personal letters are considered to be comparable to face-to-face interaction because "linguistic transactions take place between two interlocutors who not only know each other but typically share personal experiences" (p. 12). But does gender dichotomy manifest itself in the written language?

Researchers Mulac and Lundell (1994) analyzed the impromptu essays of college students who were asked to describe in writing the landscape scenes projected on a large screen. The researchers coded the writings using the following linguistic features, which they judged to be indicative of male and female writers:

1. Male language variables: references to quantity, judgmental adjectives, elliptical sentences, locatives, and sentence-initial conjunctions or filler words.
2. Female language variables: references to emotion, intensive adverbs, dependent clauses, sentence-initial adverbials, uncertainty verbs, hedges, and long mean length sentences. (Baron, 2003, p.5)

Using the above gender-coded language variables, the researchers were able to identify the gender of essay writers with an accuracy of 72.5%. (Baron, 2003) In 2002, Argamon, Koppel, Fine, and Shimoni developed a computer algorithm for detecting the gender of the writer of a given text. The study was based on a group of linguistic variables, which they believed to be indicative of male and female writers. Their algorithm correctly identified the gender of writers with an accuracy rate of 80% (Koppel, Argamon, & Shimoni, 2002).

Cultural Origin and Gender in Online Discussion

A number of studies have been conducted regarding the relationship between cultural origin and gender in online discussions. Gender differences in CMC manifest themselves cross-culturally, not just in the West or in the United States (Chambers, 1992). Eckert and McConnell-Ginet (1992) looked at the issue of gender and language in the

context of class and race. Herring (2000) found that minority gender in online discussion tends to conform to the style of the majority.

Panyametheekul and Herring (2003) studied the interaction between gender and cultural origin in a Thai chat room. They found that Thai females participated more, which was inconsistent with general expectations about the roles of women in Thai society. In another study, Ryoo (2003) analyzed how gender identities were constructed, contested, and reproduced within CMC in Korea using data collected from two e-bulletin boards. The author concluded that "gender impacts online discussions" and that "men talk more and do so differently than women who are online" (p. 1).

Linguists and other social scientists acknowledged the differences in the style of discourse between men and women in computer-mediated communications. Herring (2000) analyzed the language and gender issues in Chat, multi-user dimensions (MUDs), Multi-user object oriented (MOOs), listservers, and newsgroups. She found that gender socialization from face-to-face interactions is carried over into both synchronous and asynchronous environments. Graddy (2004) reported:

> Male conversational style [tended] to be adversarial, self-promoting, contentious, and assertive. Males were less concerned about discussion posting rules than females, and males worried more about threats to individual expressions. Males were likely to post longer and more frequent messages than their female counterparts. Female computer-mediated conversations tended to be qualifying, apologetic, supportive, and polite. (p. 3)

Selfe and Meyer (1991) undertook similar studies and concluded that, even in a state of complete anonymity, men who occupy high status off-line dominated the interactions of an academic listserv.

Rossetti (1998) attributed the differences in online discussions between men and women to the socialization process that begins in early childhood. She explained

that in the formative stages of social development, children tend to associate with their own gender. This socialization process results in the peculiar ways males and females negotiate status within the gender groups. Cameron (1998), however, pointed out that the various styles of speech were the result of children's activities. Boys learn direct, confrontational speech because they tend to play in groups organized around hierarchy structure. Girls learn to play in small groups based around friendship and intimacy. In general, women exhibit a collaborative-oriented style of discourse, while men are competition-oriented (Rossetti, 1998; Baron, 2003).

Hypotheses

The focus of this exploratory study was on the use of linguistic qualifiers and intensifiers as found in the asynchronous function of WebCT using a discussion-posting transcript of a 15-week undergraduate/graduate course in Research in Computer-Assisted Language Learning (CALL) and Computer Technology in Language Teaching (CTLT) at Hawai'i Pacific University. Based on the foregoing discussions related to language and gender, it was hypothesized that men and women differ with respect to their use of qualifiers and intensifiers (Fahy, 2002):

1. Women tend to use more qualifiers such as *but*, *if*, *I think*, *probably*, *may/might*, *often*, and *though*.
2. Men tend to use more intensifiers such as *only*, *never*, *very*, *every*, and *always*.
3. Women tend to use more personal pronouns such as *I*, *you*, *we*, and *us*.
4. Women tend to use more hedges such as *sort of*, *kind of*, and *perhaps*. (p.12)

Methodology

The group studied consisted of 19 students: 9 males and 10 females. All students gave consent for their postings to be used in this study during Week 11 of the semester. Thus, for the majority of the data, the subjects were not aware of the purpose of this study. A transcript consisting of 589 student postings (86,642 words) was analyzed. Instructor postings were not included in the analysis. The transcript was compiled and downloaded using WebCT's built-in Compile function. The transcript was then saved to Microsoft Word. Next, the postings were separated by gender, resulting in two sets of transcripts. The names of students were known to the author during the process. Each transcript was then coded for linguistic qualifiers and intensifiers as identified by Fahy (2002), using the program's Find and Replace function. The author did not use any special computer-based qualitative research tool to code and analyze the transcript.

Findings

Table 1 shows differences in the use of qualifiers. Overall, the total average use of qualifiers by the males slightly exceeded the females (73.30 vs. 72.50). The results contradicted the hypothesis that females use more qualifiers than men. The results about the two genders' use of different qualifiers were mixed: the males used some qualifiers more often than the females (for *but, may/might,* and *often*), but the females used some other qualifiers with higher frequency than the males (*for if, I think, probably,* and *though*). The results may suggest that in academic discussions, both males and females may use different qualifiers to mark their assertions as tentative to sustain the discussion and minimize disagreement. This may have been influenced by the instructor-imposed rules of sharing and posting meaningful messages.

Table 1
Occurrence of Qualifiers

| Qualifiers | Males (n = 9) | | | Females (n = 10) | | | Total |
	Count	Average use per person	Range	Count	Average use per person	Range	
but	242	26.90	5 – 83	120	12.00	2 – 24	362
if	136	15.10	5 – 33	299	29.90	5 – 76	435
may/might	142	15.80	3 – 69	91	9.10	2 – 22	233
I think	93	10.30	1 – 93	128	12.80	2 – 27	221
often	14	1.60	0 – 9	7	.70	0 – 3	21
probably	15	1.70	0 – 5	21	2.10	0 – 7	36
though	17	1.90	0 - 4	59	5.90	0 – 27	76
Totals	659	73.30		725	72.50		1384

Table 2 shows differences in the use of certain intensifiers. The results contradicted the hypothesis that males use intensifiers more frequently than females. Females had slightly higher average of usage than did the males; however, the difference is not highly significant (23.60 vs. 23.00). Further, the females' average usage exceeded the males' on three intensifiers: *very, every,* and *of course*; the males on average used *often, never, always* and *certainly* more often than the females. The females' higher usage of intensifiers was likely the result of their need to emphasize the quality of what they were describing rather than to assert their opinions or viewpoints in academic discussions.

Table 2
Occurrence of Intensifiers

| Intensifiers | Males (n = 9) | | | Females (n = 10) | | | Total |
	Count	Average use per person	Range	Count	Average use per person	Range	
very	88	9.80	1 – 29	118	11.80	0 – 28	206
often	46	5.10	1 – 12	33	3.30	0 – 7	79
every	19	2.10	1 – 3	36	3.60	0 – 12	55
never	19	2.10	0 – 8	19	1.90	0 – 6	38
always	21	2.30	1 – 6	18	1.80	0 – 5	39
certainly	6	.70	0 – 4	1	.10	0 – 1	7
of course	8	.90	0 – 2	11	1.10	0 – 2	19
Totals	207	23.00		236	23.60		443

Table 3 shows the usage of pronouns. The overall results were not consistent with the hypothesis that females use pronouns more often. The total average of usage shows that the males used slightly more pronouns than the females (182.90 vs. 180). The males' use of pronouns exceeded the females' on three of the four items listed, *I, we,* and *you.* The females had higher rates of usage of one pronoun, *us.* If we collapse the two groups' use of *we* and *us,* the margin shows that males produced fewer instances of *we/us* than females (total average of 37.7 for males vs. 80.7 for females). This higher use of this collective pronoun by the females may suggest that the females in the data were more group-oriented than the males.

Table 3
Use of Pronouns

	Males (n = 9)			Females (n = 10)			Total
Pronouns	Count	Average use per person	Range	Count	Average use per person	Range	
I	1001	111.20	18 – 231	830	83.00	10 – 37	1831
we	278	30.90	3 – 79	119	11.90	0 – 27	397
you	306	34.00	3 – 83	163	16.30	3 – 36	469
us	61	6.80	2 – 17	688	68.80	4 – 125	749
Totals	1646	182.90		1800	180.00		3446

Table 4 shows the use of hedges. The overall results were suggestive of a pattern predicted in the hypothesis that females use hedges more often (total average of 3.4 for the females and 2.7 for the males). The females' use of hedges exceeded the males' on three of the four items listed, *sort of, kind of,* and *I guess*; however, the males' rates of usage of *perhaps* exceeded that of the females'. Thus, even though the females had higher frequencies with more hedges than the males, both groups used different forms of hedges to mitigate their statements in the discussions. This again may have been because both males and females were trying not to provoke disagreement, and therefore aligning themselves with the instructor-imposed rules of posting meaningful messages that foster cooperation and collaboration.

Table 4
Use of Hedges

	Males (n = 9)			Females (n = 10)			Total
Hedges	Count	Average use per person	Range	Count	Average use per person	Range	
sort of	3	.30	0 – 2	8	.80	0 – 4	11
kind of	11	1.20	0 – 4	17	1.70	0 – 5	28
I guess	4	.40	0 – 2	7	.70	0 – 2	11
perhaps	7	.80	0 – 5	2	.20	0 – 1	9
Totals	25	2.70		34	3.40		59

Discussion and Conclusion

The trends in some of the data were not consistent with the hypothesis that females use qualifiers and personal pronouns more often than males. However, the rates of usage were not dramatically different or overwhelming, with the exception of the female students' more frequent use of *we/us* than the males, which could be an indicator of their stronger group-oriented tendency. One possible factor of the minimal differences between the two groups observed in the data could be attributed to the group members' similar academic backgrounds and age levels. Cassell and Tversky (2005) stated that "people show more cognitive complexity in their words as they age…using more insight words (think, know)" (p. 6). The ages of the students in the program ranged from 20 to 40 years, with the majority in their 30s and 40s; this might be the case in this data as well. It is also likely that the participants posted messages to share experiences and learn from each other rather than to compete.

Another possible factor could be the cultural heterogeneity of the group. Of the 19 students, there were 6 non-native English speakers (NNS) – 4 females and 2 males – all from Asian countries with the exception

of 1 of the male students. Whether the students' cultural origins affected the data in usage of intensifiers is subject to further analysis.

Another factor can be attributed to the mode of CMC used in the study. Studies showed that in asynchronous CMC, participants tended to post longer messages and choose words that are more polite compared to synchronous CMC, where gender disparity was more evident (Herring, 2000). Where the males were expected to use more intensifiers, the data suggested otherwise, as the females had higher average usage overall of intensifiers than did the males. One possible factor can be ascribed to the different meanings of the intensifiers examined. While *very* is used to modify an adjective, *certainly* is used to assert a position. According to Lakoff (1990), females tend to use more expressive forms than males: "adjectives not nouns or verbs and, in that category, those expressing emotional rather than intellectual" (p. 204). It is likely that the females used intensifiers to emphasize the quality of what they were describing rather than to assert their opinions/viewpoints. Another possible factor can be the presence of instructor-imposed rules and guidelines. The instructor made it clear that WebCT would be used to discuss readings, post meaningful messages, and share projects and resources. It is probable that the instructor's presence and imposed rules played a key role in the males' lower usage of intensifiers because of the need to conform to the rules and post messages that fostered cooperation and collaboration.

The WebCT discussion postings of students in one course revealed some slight gender-related distinctions with respect to the use of linguistic qualifiers and intensifiers. However, despite the claims of previous research that females used more qualifiers, hedges, and personal pronouns, the associations were not found to be strong. Further, while the results confirmed the hypothesis that females used more hedges than males, they also contradicted the earlier hypothesis that males used more intensifiers. It seems that males' and females' language use is influenced more by the context of use than their gender. In other words, while males and females may use gendered language in some situations, in academic discussions, they do not talk as males or as females but as scholars. This is consistent with Lakoff's (1990) claim that well-educated female professionals use male interactive styles or code-switch in order to "sound indistinguishable from their male counterparts" (p. 202). Thus, a female lawyer in court would speak with male features as much as her male counterparts in order to be seen as competent. Likewise, the female and the male students in the discussion postings examined may not have tried to construct themselves as gendered persons but as academic participants. More in-depth analysis must be done to accurately determine the nature or occurrence of gendered language in online academic discussions.

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