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Variations in Language Use across Gender: Biological versus Sociological Theories

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Abstract

We examine gender differences in language use in light of the biological and social construction theories of gender. The biological theory defines gender in terms of biological sex resulting in polarized and static language differences based on sex. The social constructionist theory of gender assumes gender differences in language use depend on the context in which the interaction occurs. Gender is contextually defined and fluid, predicting that males and females use a variety of linguistic strategies. We use a qualitative linguistic approach to investigate gender differences in language within a context of marital conflict. Differences appeared in the use of self references but not in the use of social words and positive and negative emotion words. The results of this study failed to support the sociological theory and provide preliminary evidence for the biological theory.

Keywords: gender; social construction; biological; language differences.

Introduction

Men and women have long been in dispute over things such as spending, emotions, division of labor, and male withdrawal during conflict. One of the factors that may contribute to the continuation of such disputes is language differences between the two genders. Two competing theories have evolved to explain language differences between men and women: the *biological theory* and the *sociological theory*. Because social psychologists have traditionally studied both decontextualized, mechanical features of language and isolated the individual from the social context (Coates & Johnson, 2001), language and gender research provides little empirical evidence supporting the sociological theory (c.f., Eckert & McConnell-Ginet, 2003; Goodwin, M.H., 1990) which makes the biological theory the most cited and accepted theory by default. The current study tests predictions made by the two theories using corpus analysis of texts of marital disputes. Our results thus contribute empirical evidence to the gender and language debate.

Currently, results from gender and language research are inconsistent as exemplified by the research on gender and interruptions. Evidence suggests that men are more likely to interrupt women (Aries, 1987; Zimmerman & West, 1975; West & Zimmerman, 1983) and overlap women's speech (Rosenblum, 1986) during conversations than the reverse. On the other hand, other research indicates no gender differences in interruptions (Aries, 1996; James & Clarke, 1993) or insignificant differences (Anderson & Leaper, 1998). However, potentially more important than citing the differences, is positing possible explanations for why they might exist. We approach that problem here by testing the biological and social constructionist theories (Bergvall, 1999; Coates & Johnson, 2001; Leaper & Smith, 2004). These two theories are the dominant theories by which researchers define the construct of gender (see Sheldon, 1990, for a review). This study tests the two theories using corpus analysis of emotionally laden marital disputes.

Gender Theories

The *biological theory* defines gender in terms of biological sex. The theory assumes that men outsize and outpower women (Bergvall, 1999; Tannen, 1993) and that gender polarities exist in language use. The theory gives little regard to language individualization (Coates & Johnson, 2001). The biological theory also assumes that gender roles are static and contextually independent. On the other hand, the *social constructionist theory* (Leaper & Smith, 2004) defines gender in light of social contexts in which interactions occur. It assumes that gender roles are fluid and contextually situated (Leaper & Smith, 2004), that gendered identities are voluntary, and that males and females choose their gendered identities (Leaper & Smith, 2004). In terms of language use, the social constructionist theory assumes that males and females are not confined to one particular language style, but exchange styles based on the social context of their interactions (Coates & Johnson, 2001; Leaper & Smith, 2004).

Models of Gendered Language Use

Two examples illustrate the influence of researchers' theoretical orientation towards gender on their explanations of gender and language variation. Maltz and Borker's (1982) model of gender-marked language use is based on the assumptions of the biological theory. Their

model claims that male and female speech have different content and serve different purposes. Male speech is characterized as competition oriented or adversarial. Males use language primarily to assert their position of dominance, attract and maintain an audience, and to assert themselves when other speakers have the floor. In contrast, female speech is characterized as collaboration oriented or affiliative. They use language more cooperatively than males, respond to and elaborate on what others have said, make more supportive comments, ask more questions, and work to keep conversations going. Finally, women use language to create and maintain relationships of closeness and equality, to criticize others in acceptable ways, and to accurately interpret other female's speech (Sheldon, 1990).

In addition to Maltz and Borker's model, Gilligan's (1982; 1987) model of gender-marked conflict styles also provides an example of how researchers' theoretical orientation towards gender influences their explanations of gender and language variation. Her model is also based upon the assumptions of the biological theory of gender. The model suggests that males' conflict style has a justice orientation. It claims that during conflict, males maintain a universal point of view and use language to command respect while assuming separation of themselves and others. Finally, males value logic and rationality while attempting to resolve conflict through rules or reason.

Gilligan's model asserts that females' conflict style has a caring orientation, focuses on the relationship, and on maintaining connections between self and others. It also claims that women use more collaborative speech acts, pay more attention to the needs of others, and frame resolutions in terms of the relationship. The model suggests that contrary to males, females are less legalistic in their conflicts and more willing to make exceptions to the rules. Predicated on the assumptions from the biological theory of gender which suggest that gender language differences are static and polarized, both the Maltz and Borker (1982) and Gilligan (1982; 1987) models predict that males will always use a linguistic style that reflects their concern for themselves, rules, dominance, and competition, whereas females will always use a linguistic style that reflects their affiliative nature, concern for others rather than themselves, cooperation, nurturance, and submission (Sheldon, 1990).

Social Constructionist Theory Support

Unlike the generalizable differences assumptions underlying the biological theory, Coates and Johnson (2001) suggest that language and communication are integrally tied to the context in which they occur. Several researchers concluded that gender differences in language may be better described as gender preferential than gender exclusive because of the capabilities of both males and females to use various linguistic strategies and features within different contexts (Anderson & Leaper, 1998; Fitzpatrick, Mulac, & Dinidia, 1995; West & Zimmerman, 1983). Fitzpatrick and colleagues go further to suggest interaction context as a better predictor of interaction style than gender. Also, according to Hyde (2005), context can create, erase, or reverse gender differences.

For example, in a meta-analysis of gender differences in conversational interruption, researchers had the *a priori* belief that men interrupted more than women (Anderson & Leaper, 1998). However, averaged across all studies, only a small effect was found. The effect sizes for intrusive interruptions were larger, but the magnitude of gender differences varied depending on the social context (Anderson & Leaper, 1998). Anderson and Leaper's results suggest a smaller number of interruptions with dyads and a larger number with larger groups. The results also suggest there are more interruptions with friends than strangers. Considered in terms of overall results, the Anderson and Leaper study illustrates the importance that context plays in interpreting the results of gender differences and language.

Anderson and Leaper (1998) found similar results in emotion talk between same and mixed-gender dyads. According to Coates and Johnson (2001), Anderson and Leaper's study of actual behavior revealed no significant differences between same and mixed dyads. Coates and Johnson also report that emotion talk was best predicted by the topic of conversation such that when subjects talked about an emotionally laden topic, more emotion talk occurred regardless of gender

Purpose and Predictions

In light of Anderson and Leaper's (1998) findings, as well as Gilligan's (1982; 1987) and Maltz and Borker's (1982) theoretical models, the current study tests predictions made by the researchers which are based on the biological and social constructionist theories using an emotionally laden context involving conflict. Based on Gilligan's model, the researchers predict that males use more self-reference words than women. In light of both models, the researchers also predict women use more social words than men because of the presupposition that women are more nurturing and concerned with others rather than themselves. Women are also more likely to use more social words because of their use of language to maintain social relationships. For the same reasons as just mentioned, the researchers also predict that according to the biological model, women use more positive emotions and that men use more negative emotions because they are harsher and can be thought of as being less cooperative and less likely to be used to maintain relationships. Based on the social constructionist theory, the researchers predict that there will be no differences in the language men and women use during emotional conflicts (Leaper & Smith, 2004).

Our goal is to use an emotionally laden topic involving conflict to investigate whether the biological theory of gender or social constructionist theory of gender will better predict gender styles of language use. The question we seek to answer is whether stereotypical language differences as predicted by the biological theory of gender persist within an emotional context. Consistent with the social constructionist theory of gender and language use, our hypothesis is that stereotypical language use does not persist between genders within an emotional laden context such as marital conflict. More specifically, we hypothesize that the statistical analysis of the percentage of self reference, social, positive emotion and negative emotion words from a corpus consisting of emotionally laden marital conflict texts will not show differences between males and females use of self references, social words, and positive and negative emotion words.

Our present study has several limitations from the outset. First, it does not compare gender differences across contexts. Second, the present study does not consider the context of the self reference, social, positive emotion, and negative emotion words. Finally, the use of the texts from the *Ladies Home Journal* may not be truly representative of natural speech acts for males and females if they were altered for publication purposes and audience appeal (though we assume that they were not). In light of these limitations, the present study should be viewed as a preliminary investigation.

Methods

Materials

A corpus of 54 texts, 27 by males and 27 by females, was generated from counseling transcripts of the relationship column "Can This Marriage Be Saved?" from the *Ladies Home Journal* website at www.lhj.com. Texts covered a variety of issues, such as, sex, *infidelity*, *jobs, illness, stepfamily, looks, children, addictions, and in-laws*. Appendix A provides examples of the transcripts. The corpus contained 41,081 words, 24,765 for females (M=917.22, SD=319.248) and 16,316 for males (M=604.30, SD=181.025). The texts were analyzed using the Language Inquiry and Word Count (LIWC; Pennebaker, Francis, & Booth, 2001) analysis tool that examines written text and classifies it along 70 dimensions such as *self-references, social words, positive emotions, and negative emotions*. LIWC provides a word count for the text, calculates percentage of words matching up to 85 language dimensions, and records the data into one of 74 preset dictionary categories (Brownlow, Rosamond, & Parker, 2003). The LIWC dictionary comprises 2300 words and stems, and several sources such as natural language of conversing adults, written diaries, speeches, a thesaurus, and an English dictionary.

Procedure

Ladies Home Journal relationship column, "Can This Marriage Be Saved?", was selected because it contained texts divided according to gender and was representative of emotionally laden conflicts. Couples take turns talking to male or female counselors and therapists primarily from the East Coast, who then offer resolutions ranging from small changes in the relationship to divorce. For our purposes, it was not necessary to include the counselors' speech. The first three stories were selected from each relationship topic to be consistent across corpora.

We analyzed the texts using LIWC and recorded the percentages for self-references, social words, positive emotions, and negative emotions used within each text. Examples of self-references include personal pronouns such as *I*, *me*, and *my*. Social words are those used to make references to others and exemplified by *they, she, us, talk,* and *friends*. Examples of positive emotion words are *happy, love,* and *good*. Examples of negative emotion words include *sad, kill,* and *afraid*.

Results

To determine if there was a difference in the number of self references, social words, and positive and negative emotion words males and females use, we conducted a one-way ANOVA on each variable. As shown in Table 1, there was a significant difference between males and females for self-reference words (p<.05). The difference between males and females for social words was marginal (p=.075). There was not a significant difference for males and females in positive emotion words, nor a significant difference between males and females for negative

Table 1. Means and standard deviations for the percentages of four types of words (self-reference, social, positive emotion, negative emotion) for males and females.

Word Types	Male	Female	F(1,52)	Partial Eta Squared
Self-reference	11.85(1.42)	9.98(1.56)	21.302*	0.291
Social	12.24(2.49)	13.46(2.45)	3.294	0.06
Positive emotions	2.54(.77)	2.43(.67)	0.279	0.005
Negative emotions	2.67(.84)	2.40(.82)	1.377	0.026

Notes: *p<.05

emotion words. These results indicate that the corpus analysis provides empirical evidence for the biological theories but does not support the social constructionist theories.

Discussion

The purpose of the present study was to further examine gender and language within an emotionally laden context involving conflict. We investigated whether the biological theory of gender or social constructionist theory of gender would best predict gender styles of language use. The question we sought to answer was whether stereotypical language differences as predicted by the biological theory of gender persist within an emotional context. Because of the role context plays as a determinant of linguistic styles, our prediction was that language use between men and women would be consistent with the social constructionist theory of gender and language. Because of the role context plays in social interactions (Coates & Johnson, 2001; Anderson & Leaper, 1998), we predicted stereotypical language use would not persist between genders within an emotionally laden context such as marital conflict. We also predicted that the percentage of self reference, social, positive emotion, and negative emotion words from a corpus consisting of emotionally laden marital conflict texts would not show differences between male and female use of self references, social words, and positive and negative emotion words.

Some of our predictions were supported by the data. The results indicated that there were not significant differences between genders for the number of social words, positive emotion, and negative emotion words. These results support the prediction that some characteristics of stereotypical language use, as assumed by the biological theory of gender do not persist within a context of marital conflict. These results in conjunction with those of Anderson and Leaper (2001) further support the claim that gender differences in language use are not polarized and that context does play an important role in predicting which gender will use a particular language strategy. We predicted that there would not be a significant difference between genders and the use of self-references according to the social constructionist model; however, there was a difference biased towards males. Although, we did not predict a difference between the average number of words per text for males and females, the results indicated a difference biased towards females. These results are consistent with research suggesting that women are more verbose than men because of their tendency towards elaborating, question asking, and making supportive comments during conversations. Such results may also suggest evidence for the biological theory. The results from this preliminary study suggest the need for further empirical investigation of gender and language use.

The current study adds to the field by providing empirical evidence for the development of the debate for both major theories of gender and language use. Future research will significantly broaden the corpus analyses into a variety of alternative registers. Such research will seek to offer empirical evidence as to where, when, and to what degree language differences can be associated with gender.

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Appendix

Appendix A. Samples of male and female text

Gender	Transcript
Female	Why isn't Lane turned on by me? It's been 8 months since we last made love successfully that is. We've tried a few times but he loses his erection. Then he goes to sleep while I lie there confused and frustrated. Soon we were fighting about sex. Naturally he was angry we weren't having it. When I'd say 'Let's try on Saturday' then back out because it hurt too much, he'd grow even more furious. My husband never listens to me said Marcy 42 a marketing director and mother of two. Howard hears the little things like if I ask him to turn down the TV, but when it comes to major issues, he tunes me out. His indifference is why we are constantly at odds.
Male	I can't make love anymore. Frankly I'm scared to initiate sex because I know I'll just fail again, and Angela doesn't hesitate to let me know how upset she is. She'll say things like I guess I don't turn you on anymore, and I don't know if I want to stay in a celibate marriage. I don't want a divorce but I can't stay in an unconsummated marriage any longer said Brad 36 a creative director for an advertising agency. I've been patient over the past 11 years. I believed Natalie when she promised to solve her problem**.** Marcy portrays me as the source of our problems, but she bears half the blame. One minute we're having a simple argument, the next she's calling me hateful names and dredging up my past sins. I've been hurt by Marcy's unfair and hostile criticisms, most of which center on her anger that I don't follow her instructions for running my business or handling my family.