Influence of Communication Partner's Gender on Speaker's Language

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B.S. in Speech and Hearing Sciences, June 2011, University of Washington
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A Thesis submitted to

The Faculty of
The Columbian College of Arts and Sciences
of the George Washington University
in partial fulfillment of the requirements
for the degree of Master of Arts

May 19, 2013

Thesis directed by

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Abstract of Thesis

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This research investigates the influence of communication partner gender on a speaker's conversational style. Forty participants (20 male) had two 3-minute conversations with a trained male and female communication partner. Eighty three-minute conversations were transcribed and coded for *dependent clauses, fillers, tag questions, intensive adverbs, negations, hedges, personal pronouns, self-references, justifiers,* and *interruptions.* A ratio of the frequencies of these linguistic markers to total number of words produced was calculated for each speaker in each conversational context. Results suggest no significant changes in language based on speaker gender $F(10, 29) = .412$, $p = .929$, $\eta^2 = .124$. However, communication partner gender was influential in language change $F(10, 29) = 15.573$, $p < .000$, $\eta^2 = .843$. There was no significant interaction to suggest language change for communication partner was specific to one gender group $F(10, 29) = 1.061$, $p = .421$, $\eta^2 = .268$. These results are discussed in context of previous research, communication accommodation, and social-versus-biological factors associated with language and gender.

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Chapter 1: Introduction

People routinely adopt dialectal features and communication styles of their communication partners. Referred to as "code-switching", this phenomenon is described in the context of regional, ethnic, or socioeconomic dialects. Popular science and conventional wisdom assert a gender dialect: stylistic language differences between males and females. Previous literature also suggests males and females may exhibit their own specific linguistic profiles, though results have been inconsistent in proving such gendered language characteristics (Giles & Powesland, 1975; Giles, Scherer, & Taylor, 1977; Ashmore, 1981; Mulac & Lundell, 1982). If differences do exist, then Communication Accommodation Theory would have us expect speakers to modify their linguistic profile, or "code switch", when speaking to someone of the opposite gender with a linguistic profile distinct from their own. This paper examines how a speaker will change language styles according to the gender of their communication partner.

Chapter 2: Proposed Theories to Explain Gender Differences in Linguistic Output

Several theories seek to explain the underlying causes of gendered speech. Dominance Theory and Lakoff and Tannens's proposals suggest that language style is a display of status, either dominant or subordinate, and that characteristics of male and female speech are a result of differed social importance. Mulac and colleagues, while still differentiating male and female behavior, suggested that gender is a *cultural* phenomenon and gendered speech is similar to cultural linguistic variations rather than a manifestation of dominance and subordination (1982).

Dominance Theory

The underpinnings of *Dominance Theory* are rooted in animal observations and the notions of dominance and submission in the zoological domain (Henley 1973, 1977; Halberstadt & Saitta, 1987). Henley, after viewing different hierarchical power roles between animals, extrapolated the findings to explain the social and communicative roles between humans. The theory suggests that social interactions between individuals of different statuses (i.e. powerful/dominant versus powerless/submissive) observed in nature parallel the verbal interactions between people of different statuses (Henley 1973, 1977).

When applied to language, *Dominance Theory* explains both verbal and nonverbal productions as reflections of social status; a dominant individual is more assertive, concise, and competitive whereas a submissive individual is more cooperative and

emotional, seeking to maintain agreement and intimacy (Helweg-Larsen, Cunningham, Carrico, & Pergram, 2004). Head nodding, for example, is considered submissive communication and is demonstrated more often when students are interacting with their professors than with their peers indicative of status-based language (Helweg-Larsen et al., 2004). In conversations, females are more likely than males to display this so-called submissive or uncertain language (e.g., back channel responses (*yeah* or *uh huh)*, hedges (Mulac, Wiemann, Widenmann, & Gibson, 1988), and tag questions in their speech (Lakoff, 1975)), suggesting a parallel between non-dominant and feminine language patterns. However, Hall (2006) asserts that the similarities between these language patterns are not necessarily based in the same cognitive intentions.

Hall (2006) warns against assuming females are the non-dominant communication partner because the use of these gestures cannot be empirically supported to indicate a consistent gender-status link. Female students may nod their heads during class because they feel they have to show support for their professors, but another potential intention is to indicate a desire for continuing the communicative interaction (Hall, 2006). This does not automatically indicate an inherently lowered status. While *Dominance Theory* could be used to explain differences in statuses, using it to explain gender-differences relies heavily on perceived social inequalities and stereotypes (Hall, 2006). In Western Culture, the head-nod can signify greeting, affirmation, or understanding, functions which cannot be empirically cited as status-indicative. Therefore, *Dominance Theory* alone does not adequately account for gender-differences in language because supporting research does not examine the underlying communicative intention of the speech or gestures.

Psychological States

On a similar branch as *Dominance Theory*, some research regards gendered language as a product of psychological states, which may include but are not limited to dominance status, dictated by the gender roles of a society. According to Lakoff (1975) and Tannen (1990), males and females show differences in linguistic behavior because of their differences in biology, development, and role in society (Goldsmith & Fulfs, 1999). Hallmarks of feminine speech (e.g., tag questions, hedges, and uncertainty verbs) suggest the speaker's uncertainty, oppression, and subordination. Lakoff attributes "female language" to women's "lowered" role in society and asserts that women are more person-oriented, emotion-centered, and subordinate to men.

Although Lakoff and Tannen's claims are intriguing, as they openly suggest differences between sexes, both lack empirical support to prove the assertions; anecdotal evidence is provided and observational data is suggested but not explicitly described. The wild success of these claims is likely due to the unconditional explanation they offer concerning a universal topic. However, as with *Dominance Theory*, the psychological proposals for feminine speech are not adequately grounded in data and should be carefully examined before adoption. While the present study will not focus on the psychological implications of gendered speech, Lakoff and Tannen's ideas provide a basis on which to treat males and females as different social groups.

Gender as Culture

Another explanation for sex-related speech differences comes from Mulac, Bradac, and Gibbons (2001). Culture is commonly defined as a system that has values and practices not necessarily bound by geography (Maltz & Borker, 1982; Gudykunst & Ting-Toomey, 1988). To test the gender-as-culture hypothesis, Mulac et al. categorized transcribed oral communication from perceptual ratings. They concluded that a male dialect is more low-context and individualistic (direct, succinct, and possibly more egocentric) than a female dialect, which is perceived as more high-context and collectivistic (indirect, elaborate, and emotional) (2001); there were significant correlations found between perception of male speaker and use of direct and succinct language and perception of female speaker and use of indirect and elaborate language (2001). These findings suggest that males and females should be examined separately when researching gendered language.

Communication Accommodation Theory

Communication Accommodation Theory seeks to explain how speakers in a conversation will change their verbal and nonverbal communication style when there are perceived differences between communicators. Communication accommodation operates with underlying assumptions: people want to communicate with one another, people have expectations about how others communicate. Because of these expectations, speakers will *accommodate* or converge to their partners' style when agreement is sought to minimize the overall communicative burden (Giles & Ogay, 2007). On the other hand, if a speaker does not seek agreement with his partner (a *dominant* personality characteristic), communication accommodation will either not occur, the accommodation

will be greater for the converging partner (showing speaker subordination), or the speaker will intentionally diverge his or her language.

Evidence from Mulac et al.'s study relates gender to culture; they concluded that different genders represent different cultures− an assertion not unlike those presented in previous sections. Dominance Theory and Lakoff and Tannen's corollaries proposed that language differences between genders are an issue of dominance/submission, while Mulac and colleagues suggested that these differences may be stylistic preferences rather than manifestations of psychological states (2001). Communication accommodation is not necessarily concerned with gender per se, but rather explaining how clashing linguistic styles are mitigated in conversation. If, according to the first three theories, language is in fact different between males and females because of the differing cultures or psychological statuses, Communication Accommodation Theory would further suggest that these differences are either suppressed or exaggerated when the two members of the different genders interact.

Chapter 3: Role of Speaker's Gender in Language Production

The theories presented in Chapter 2 provide a rationale to treat male and female speech differently in linguistic analysis. Empirical studies of these theories include investigations of *observed differences* (finding the frequency of occurrences of gendered speech) or *perceived differences* (subjects rate transcripts as characteristic of either male or female speaker). Previous research suggests that both methods of data collection reveal differences in male and female speech, but observed differences are relatively small, perhaps insignificant (Leaper & Ayres, 2007).

Observed Gender-Based Language Differences

The majority of the data regarding gendered language comes from observational-type research designs. McMillan, Clifton, McGrath, and Gale (1977) found that females used twice the amount of **tag questions** (e.g. *Nice day, isn't it?*), **directives-as-questions** (e.g. *Could you do that please?*), and **intensive adverbs** compared to males in group problem solving activities. This finding is consistent with Lakoff's (1975) assertion that females habitually use more tag questions in their speech and attributed to female uncertainty, self-doubt, and internalization of negative interactions (McMillan et al., 1977). On the other hand, McMillan et al.'s conclusion is contrary to Dubois and Crouch (1975) and Lapadat and Seesahai's (1978), who found that males use more tag questions than females in conversational and interview group settings. This discrepancy is likely related to the differing communication conditions or definitions of markers used, though Dubois

and Crouch and Lapadat and Seesahai do not elaborate on these areas enough to make such a conclusion.

Other studies suggest a gender effect on semantic complexity. Beck (1978) found that men employed unrestricted communication style and were better able to organize their utterances than females. This included having longer mean length sentences and more **dependent clauses**, whereas females displayed linguistic complexity by varying intonation and stress patterns. Beck proposed that females' use of a restricted style was indicative of their restricted and subordinated role in society. Conversely, Poole (1979) found that middle class women used more dependent clauses than other participants of other genders or socioeconomic statuses. Beck's findings indicate female subordination in society consistent with Lakoff's proposal through linguistic restriction, whereas Poole's findings indicate syntactic complexity and elaboration as a function of socioeconomic status, less so than gender. Regardless of gender attribution, this literature suggests gendered-language differences may exist beyond word boundaries.

In some research, the use of **personal pronouns** (e.g. *I, we, you* only), **references to emotion,** and **intensive adverbs** have been posited to represent a speaker's ability to relate experiences and express feelings in discourse (Hirschman, 1973; Leaper & Ayres, 2007). Several authors have examined male's and female's use of these variables in dyadic and group problem solving settings (Hirschman, 1973; Mulac & Lundell, 1986; Mulac, Lundell, & Bradac, 1986; Mulac et al, 1988). The findings from these studies show females use personal pronouns, references to emotion, and intensifiers more often

in conversations than males; Hirschman found that female same-sex dyads produce personal pronouns between 1.5 and 2 times more than male same-sex dyads (1978). Gleser, Gottschalk, and John (1959) and Poole (1979) found that females also use more personal pronouns in structured interview or monologue settings. As these linguistic markers serve to "affiliate" speakers, Leaper and Ayres found meaningful effect sizes (d = .44) to support women's affiliative speech in activities centered on nonpersonal topics (2007). These findings may be indicative of an increased affiliative style in feminine speech compared to male speech.

Though some of the conclusions in previous literature are conflicting, there is some empirical support suggesting a difference in masculine and feminine speech characteristics in a variety of communicative contexts. In some instances, these differences have been interpreted as support for Dominance Theory (e.g. males' use of directives and females' use of personal pronouns). Many of these differences, however, are descriptive only (e.g., mean values) and are not statistically significant. Even though only small differences have been noted in previous research, authors continue to explore variations between male and female language. Whereas inconsistent results in observational studies prohibit conclusive gender-differences, perceptual studies appear to be more congruent with conventional stereotypes of gendered language.

Perceived Gender Differences

While measuring the frequency of linguistic elements to reveal gender-based language differences serves an important purpose in quantifying differences, identifying *perceived*

gender differences is likely to be a more effective means to measure gendered language. As such, other studies focus on transcript perception to determine correlation between language and perceived gender. Mulac and Lundell (1982) and Mulac et al. (1986) recruited a group of raters and trained them to use the Speech Dialect Attitudinal Scale (SDAS)– a scale designed to quantify the listener's perception of transcripts, focusing on several areas: Socio-Intellectual Status (high status, educated, rich); Aesthetic Quality (pleasing, beautiful, nice, sweet); Dynamism (aggressive, active, strong, loud). Based on the ratings of the transcripts that had high agreement on gender identification from untrained raters, significant findings suggest male speakers receive higher Dynamism scores than females and female speakers receive higher Aesthetic Quality scores than males. These findings support the gender-as-culture theory, as Dynamism and Aesthetic Quality can be considered cultural linguistic styles: low-context and collectivistic, respectively (Mulac & Lundell, 1982; Mulac et al., 1986; Mulac et al., 2001). Furthermore, these findings suggest that gendered language may be based on perceived psychological intent or role of the author of the stimuli.

Continuing the study of gender perception, Mulac and Lundell (1986) examined impromptu picture descriptions. Again, judges rated transcripts for based on speaker perception (both quality and gender) using the SDAS. More **negations, intensive adverbs,** and **increased mean-length of sentence** were perceived to be of female speakers. **Impersonals** (e.g. *it; there are*), **geographical references** (e.g. *Vermont),* and **spatial references** (e.g. *on the left side*) were associated with male speakers. Perceptual ratings indicate that these and other linguistic markers were more predictive of perception

of a specific gender. The transcripts perceived as female had a higher frequency of the linguistic markers found to be more common in female register. However, low R^2 values (<.5) suggest a low correlation between gender and use of **intensive adverbs, fillers, impersonals, justifiers, and verbs of cognition** (Mulac & Lundell, 1986). Naïve raters were unable to accurately judge the gender of the speakers based on transcript alone even when transcript analysis confirmed systematic linguistic differences between men and women.

Akin to other perceptual studies Quina, Wingard, and Bates (1987) also studied masculinity-femininity ratings. However, rather than using *actual* utterances from speaker, Quina et al. used synthetic sentences to demonstrate gender language. The sentences used were constructed according to Lakoff's hypothesis about men and women's language (e.g. **tag questions**, **hedges**, and **intensifiers**). Both "masculine" and "feminine" sentences were presented to a group of raters. Both types of sentences were presented to participants with (sometimes false) information about the gender of the person who said the sentence (i.e., a man, woman, or non-gender-specified person) in an orthogonal design. Overall, regardless of the speaker's gender, a speaker using Lakoff's feminine style was perceived more feminine than a speaker using the masculine style. The "speakers" of masculine-rated sentences were perceived as more competent, less polite, and more socially extroverted whereas the "speakers" of feminine-rated sentences were conveying sensitivity, friendliness, sincerity, hesitation, and politeness, indicative of both high-context and collectivistic communication styles. These results are consistent with results from Mulac and Lundell (1986) and Mulac et al. (1986) and are contrary to

Lakoff. The authors suggest that evaluating speech as dominant or subordinate is more an issue of linguistic style than actual speaker gender (Quina et al., 1987).

Potential Mediating Variables in Gendered Language

While important to strictly examine gender of speakers alone, there may be other factors that influence language. Leaper and Ayres's (2007) meta-analysis examined a series of articles to show the effects of gender on talkativeness, affiliative speech (i.e. speech to positively engage the other person), and assertive speech. They analyzed the articles based on a series of moderators including gender of group, size of group, familiarity of participants, and interview context. The data examined were from both transcript rating and transcript analysis studies. Overall, the findings suggest that while men are more talkative and assertive than women and that women use more affiliative speech than men, the low effect sizes (d<.2 for each) show that the differences between each population are negligible. These results are in direct contrast to previously proposed ideas about gender-typed language.

Many of the overall gender effects found by Leaper and Ayres change when mediating variables are considered. For example, men were more talkative overall, especially in disagreement or nonpersonal conversations, yet women were shown to be more talkative with classmates, dating partners, and in parent-child interactions. The structure of the activity also determined talkativeness: self-disclosure and child-centered activities yielded higher mean length utterances (MLU) from females. Only when context is

considered can the results potentially support the initial hypothesis that talkativeness is a feminine quality.

Mediating effects of contexts were also found for affiliative speech variables. Medium-to-large effect sizes were in favor of women using more affiliative speech with classmates (d=.34) and dating partners (d=.32) or if the activity was a nonpersonal topic (d=.44). Similarly, McMillan et al., (1977) and Mulac and Lundell (1986) found that use of tag questions is more common with females or perceived more feminine given a novel, nonpersonal task with a partner. This parallels the common but unsupported claim that women use more back-channel responses in conversation.

Assertive speech is also significantly different between males and females when taking into account specific contextual variables. The medium-to-large effect sizes show that men are more assertive than females given only a nonpersonal task (d=.48). Females, however tend to be more assertive when a researcher is present (d=.46). Assertiveness is frequently cited as a male speech characteristic but small effect sizes ($.1<d<.3$) in varying contexts with partners of varying familiarity suggest only a small, difference between men and women.

Chapter 4: Communication Partner Features that Influence Interaction

Previous literature has generally examined speaker language in isolation, not necessarily taking into account broad environmental factors, such as the communication partner. According to Communication Accommodation Theory, perceived differences between communication partners are expressed subconsciously in verbal language (Giles and Smith, 1979). Several authors cite communication partner characteristics such as presence/absence of an authority figure (Mulac et al., 1988; Leaper & Ayres, 2007) and familiarity with communication partner (Crosby & Nyquist, 1977; Leaper & Ayres, 2007) as causes for changes in linguistic style. One important and potentially informative factor is gender of a communication partner; the gender of the communication partner may mediate the amount of communication accommodation that occurs. Communication accommodations occur when speakers sense cultural discords yet want to make communication efficient or use communication to establish a role. If females are inherently subordinate to males (Lakoff, 1975), they should converge their speech in MG dyads more than males, as this is a subordinate behavior. Simultaneously, males should maintain or diverge their speech style from females, as this is a dominant behavior (Lakoff, 1975; Giles & Ogay, 2007). Yet, there is limited evidence to show such convergent and divergent activity.

Gender of Communication Partner

Perceived differences in communication style will often affect how one communicates. More specifically, a speaker *should* imitate or, at least, approach convergence of the

perceived linguistic styles of their partner when attempting to make communication efficient and gain approval from the other speaker (Mulac et al., 1988; Giles & Ogay, 2007). If, however, a speaker intends to disagree with another, does not seek approval, nor make communication efficient, he/she is likely to maintain his/her own linguistic style. The research reviewed in the previous section examined language of males and females performing *cooperative* activities, in which the likelihood of convergence over divergence is expected. The qualities of the communication partners in these studies were generally not examined or disregarded.

Researchers in the 1970s began to study not only the characteristics of gender-typed language (as a response to Lakoff's (1975) proposal of a feminine register) and slowly what partner factors may influence it. McMillan et al. (1977) examined conversations of mixed-gender (MG) and single-gender (SG) groups of 5-7 people during a problem solving task; familiarity of the participants was not controlled. These conversations were analyzed for markers of the feminine register indicating uncertainty (i.e., **intensifiers**, **modal constructions**, **tag questions**, and **imperatives-as-questions**). They found that women, regardless of communication partner, used more of these variables than males. Additionally, both males and females tended to increase the uncertainty characteristics more in MG than in SG groups. These findings show that people tend to use more uncertain language (as defined by McMillan et al.) when in MG groups– a strategy not observed in SG dyads. According Communication Accommodation Theory and Dominance Theory, males' use of uncertain language indicates convergence, likely a subordinate characteristic, while females' divergence indicates dominance. Because it is

expected that males typically diverge and females converge, these results indicate that males and females may not dominate and subordinate according to their stereotyped role.

Similar to the present study, Martin and Craig attempted to examine effects of communication partner's gender on communication with strangers. The groups (5 male SG, 5 female SG, and 10 MG) performed an acquainting activity while their conversations were recorded. There were no differences in frequency of **qualifiers** used by men and women when the communication partner's gender was controlled. However, within each gender group, the number of qualifiers a person used in conversation was significantly affected by the gender of his or her communication partner. Men and women do not differ in frequency of qualifiers used when speaking to males, but when talking to females, women increase and men decrease the number of qualifiers used, similar to uncertainty language from McMillan et al. Another comparison revealed a significant difference between the female same-sex dyad and other dyads (male-male or mixed-gender): one person in the female-female dyad does a majority of the talking, contributing on average 400 more words (compared to 141-186 word disparities in the other dyads). Martin and Craig (1983) noted this was consistent with patterns in later stages of relationships and indicated women become comfortable in conversation with other women at a faster rate than found in other dyads. In the context of a dominance theory, results of Martin and Craig's (1983) study demonstrate the influence of dyad composition and suggest that a female communication partner elicits a woman's most indirect and relaxed language but elicits a man's most direct and assertive language.

These results indicate that examination of communication partners is necessary to fully explain gendered language.

Further studying gender differences and the communication partner's influence on speech, Mulac et al. (1988) studied the occurrence of a "feminine register" in 48 unfamiliar mixed-gender and single-gender dyads during a cooperative conversational activity. They measured the occurrences of both masculine (**interruptions** and **directives**) and feminine (**questions**, **justifiers**, and **intensive adverbs**) speech characteristics in these conversations, as indicated in earlier research. The results concluded that gender-linked language was more common in single-gender dyads than mixed-gender dyads. The speakers used more gender typical language when speaking to a member of the same sex, but shifted their speech in mixed-gender dyads to mimic their partner of the opposite gender. This is consistent with Communication Accommodation Theory if the men and women were not trying to establish or maintain a dominant/submissive relationship, though such psychological intentions are unknown.

As an exploratory study to examine the influence of one's communication partner, Hirschman (1973) examined agreement, fluency, and supportive language of four participants (two males) in single-gender and mixed-gender dyads when conversationally responding to opinion questions. The two female speakers were typically more vocally supportive than males in SG groups, as evidenced by their increased use of **back-channel responses**. Females tended to decrease **self-references**, **3rd person pronouns**, and **interruptions** from SG to MG, suggesting that females consciously or unconsciously felt

the need to alter their style with male partners. The four participants in the study demonstrated gender differences in language related to supportive or facilitative cues. Similarly to Martin and Craig (1983), the female-female dyad was most fluent and facilitative. Even though this study was exploratory and had a low sample size, the republishing of this study in 1994 indicated that the call for in-depth examination of communication partner influence on one's speech still was unanswered.

Specifically addressing the issue of communication accommodation and dominance, Bilous and Krauss (1988) studied MG and SG dyadic conversations, measuring total number of **words**, **attempted interruptions**, **short/long pauses, back channels**, and **laughter** in participants' discourse. Female speakers in SG dyads speak significantly more and interrupt significantly more than male speakers in SG dyads (consistent with Hirschman (1973)); yet speakers do not differ in these measures when in MG dyads. This suggests that the extent that females alter their amount of talking and frequency of interruptions is dependent on the gender of their communication partner; this is not the case for males. However, other variables do not disassociate men and women's patterns of convergence. Men and women both converge toward their communication partner in MG dyads in terms of number of pauses and back channel responses; males may converge to a greater degree, contrary to notion of male dominance– an observation noted in McMillan et al. (1977) and Martin and Craig (1983). Although Bilous and Krauss suggest psychological, rather than linguistic, accommodation occurred in this instance based on how they categorized their dependent variables, this study is consistent with previous findings that each gender is actively trying to appeal to the other (Bilous &

Krauss, 1988). Overall, this resesrch suggests dyad composition is important in speech style analysis and communication accommodation may occur for men and women.

Though previous authors suggest that the gender composition of the group is a fundamental in illustrating communication accommodation, others suggest that linguistic style is the key. Hannah and Murachver (1999) studied the effects of speech style on communication accommodation by training both male and female confederates to use facilitative (less **interruptions**, increased **eye contact**, increased **minimal responses/back channels**) and nonfacilitative (more interruptions, decreased eye contact, and decreased minimal responses) speech styles in conversations. While gender of the speaker and communication partner was an important factor, the different speech styles of the communication partner were more crucial to the changes noted in the participants' speech. Those individuals, regardless of gender, who conversed with a nonfacilitative partner spoke less (measured in **time spoken**), **interrupted** more, and looked away from their partner more; participants who spoke with a facilitative partner spoke more in general compared to the nonfacilitative. Hannah and Murachver state that women are more likely to have facilitative roles in conversation (Holmes, 1995). Because participants interacted with both males and females using facilitative and nonfacilitative styles, these results indicate that communication partner's linguistic style, especially an inclusive, affiliative, and accommodating one, has a greater influence on a speaker's speech and linguistic convergence than gender alone (Hannah & Murachver, 1999).

The most current examination of gendered speech and the influence of the communication partner comes from the aforementioned meta-analysis by Leaper and Ayres (2007). In their meta-analysis, studies between 1960 and 2004 were reexamined to determine the influence of various moderators on the effects of **assertive speech** (masculine), **affiliative speech** (feminine), and **talkativeness** (feminine) outcomes (see Leaper & Ayres, 2007 for explicit definitions). Although previous literature has provided a framework of expectations, Leaper and Ayres did not find any of the three qualities (assertive speech, affiliative speech, or talkativeness) to be strongly linked with a particular gender-composed group. Leaper and Ayres found that assertive speech, where the speaker is often the agent or subject of the conversation, is more strongly present in male SG groups than MG groups (d= .29 versus .03, respectively). While not a large effect size, this does indicate that the gender of the communication partner will often dictate the use of the speech style and that the presence of the opposite gender may cause an attenuation of the gender-typed style (2007) This is consistent with Mulac et al.'s finding that gender-typed language occurs more in SG groups than MG groups (1988).They also found that affiliative speech, where the speaker uses elements that affirm or positively engage the other person, is an attribute more commonly linked to female SG groups than MG groups (d= .33 versus .03). Again, while not a strong effect size, it is consistent with Mulac et al.'s finding regarding gender-typed language (1988). This change indicates that the communication partner has an effect on the variable measured.

In the same study, talkativeness also showed important differences based on group composition. While the literature suggests that talkativeness is a feminine conversation attribute, Leaper and Ayres found that males spoke more than females, regardless of group gender composition. Furthermore, males spoke more in MG groups than SG groups (d= .28 versus .08) suggesting accommodation occurred due to the presence of the opposite-gendered partner. This is also consistent with Mulac et al. (1988) and Martin and Craig (1983) in that the more feminine quality occurred with the feminine communication partner, further suggesting an influence on language from the communication partner.

Results from previous research vary greatly. Some results are consistent across studies: females in SG dyads will **interrupt** each other more (Hirschman, 1973; Bilous & Krauss, 1988), female speakers in SG dyads use more **back channel responses** than males (Hirschman, 1973; Bilous & Krauss, 1988), and female speakers in SG groups will use more **qualifiers** than males (Martin & Craig, 1983; Mulac et al., 1988). Other findings are contradictory: McMillan et al. (1977) found that males will interrupt more than females, but Hirschman (1973) and Bilous and Krauss (1988) both found that females will interrupt more than males. All of the research has found some gender differences in speech at least in the scope of the study itself; what these differences are attributed to– gender or linguistic style–is still uncertain. The extent of the gender difference, however, appears to be influenced by many variables: gender, familiarity, and relative status of the communication partner to the speaker. The independent influence of each of those variables has been implied in a meta-analysis (Leaper & Ayres, 2007) but not examined

in empirical investigation. Therefore, this study will isolate and measure the effect of communication partner gender on both male and female language during a conversation.

Chapter 5: The Present Study

The present study will examine the influence that the communication partner's gender has on the linguistic output of the speaker and whether that influence is significantly different for male and female speakers. The study will analyze the frequency of speakers' uses of specific linguistic variables, answering the following questions:

1. Is there a difference in how male and female speakers communicate based on the frequency of the following in a marker-per-total-word ratio (see *Appendices A* and *B* for specific details):

    -Personal pronouns (*I, you, we*)

    -Self-references (*I*)

    -Dependent clauses (*The man who built the bicycle*)

    -Fillers/filled pauses (*umm, uhh, you know*)

    -Intensive adverbs (*really, extremely*)

    -Justifiers (*I'm sad because I'm hungry*)

    -Negations (*I don't like pizza*)

    -Tag questions (*Beautiful day, isn't it?*)

    -Hedges (*sort of, kind of*)

    -Interruptions

2. Does the gender of a speaker's communication partner influence the speaker's linguistic output, as measured by frequency of the aforementioned markers?

3. Is there evidence to suggest one speaker gender group modifies their language based on communication partner more than the other gender group?

Based on previous literature, we expect that male and female speakers communicate differently, a communication partner's gender significantly influences a speaker's linguistic output, and that female speakers will converge their language to their partner's style more than males will.

Chapter 6: Methods

Participants for Conversational Task

The data collected was part of a larger study exploring communication factors in gender perception. Participants were recruited by word of mouth from the Washington, DC metropolitan area and were native speakers of American English (see *Table 1*). A lab assistant informed all participants of the study's intent only after the conversation occurred; they received ten dollars for their participation.

Table 1

Participant Demographics

	Average Age (years)	Std. Dev.	Sample Size	Age Range
Male	26.00	10.59	20	18-59
Female	23.55	9.74	20	18-51

Participant eligibility was not dependent upon race, ethnicity, or socioeconomic status. Participants were excluded from the study if younger than 18, older than 60, a non-native speaker of English, or previously diagnosed with cognitive, psychological, voice, or language-based disorders.

Materials

Equipment

All responses were audio recorded using an Olympus VN-4100PC recorder (microphone: Radio Shack 33-3013) and video recorded using a Panasonic SDR-H60 video camera. Two trained student volunteers transcribed the audio responses using CLAN (V13) on a Dell computer with Windows Vista operating system.

Trained Communication Partners

The primary researchers trained six students (3 male) as communication partners. Their ages ranged from 21 to 32 and all were students at or associated with the George Washington University Speech and Hearing Sciences Department. They were trained to elicit conversation according to a predetermined script (see *Appendix C*). Before interacting with recruited participants, these partners practiced with each other and the principal investigators to show adequate proficiency in conversing and following the general outline of the script.

Script

To address conversational topic and familiarity bias, each of the trained partners memorized two scripts to use to elicit conversation regarding opinions about cellular phones or reality television. Although each partner was given the same scripts, were not instructed to use a particular style (e.g., particularly feminine or facilitative). While they were aware that the experimental conditions were related to the gender of the communication partner, they had limited knowledge of the communication differences between men and women and were unaware of the dependent variables in the study (see *Appendix C*).

Procedure for Conversational Task

Conversational Task

After an informed consent process, participants were assigned an anonymizing number and verbally answered a short questionnaire regarding cognitive, medical, and language history. A trained male or female communication partner would enter and engage in a

three-minute discussion about one of the two prescribed topics with the participant. The next communication partner (of other gender) would enter and discuss the other topic and painting with the participant. The order of communication partners, as well as the topic, was counterbalanced to control for potential learning effects (see *Appendix D*).

Analysis of Language Samples

Transcription

Research assistants uploaded the obtained .wav files to Windows-operated computers and transcribed the first three minutes of each participant's audio sample verbatim into a CLAN file. The assistants separated participant utterances and trained partner utterances. To ensure accuracy, a second reader reviewed each completed transcription. If the reader disagreed with a transcription, a third reader would settle any discrepancies after further review and change the file accordingly.

Coding

The codes used for this study were linguistic variables from previous studies that showed a potential change for a speaker due to their gender and the gender of the communication partner. The author, trained by his supervisor, coded the transcripts for the following variables (see *Appendices A* and *B*):

1. Personal pronouns (*I, you, we*)
2. Self-references (*I*)
3. Dependent clauses (*The man who built the bicycle…*)
4. Fillers/filled pauses (*umm, uhh, you know*)

5. Intensive adverbs (*really*, *extremely*)

6. Justifiers

7. Negations (*I am not a fan*)

8. Tag questions (*Nice day, isn't it?*)

9. Hedges (*sort of*, *kind of*)

10. Interruptions

Additionally, total number of words was calculated from the transcripts.

Reliability of Coding Procedures

For interjudge reliability, two raters coded the same 20% of the total collected samples for the previously mentioned linguistic markers. Their ratings were then compared to each other and achieved 80.3 % point-to-point agreement in correct coding for the dependent variables.

Chapter 7: Results

Descriptive statistics

The results for the descriptive statistics found are presented in *Table 2* as an average of the frequencies of each linguistic variable produced in the three-minute conversations in each gender composition. To account for individual speaker differences (e.g. rate of speech and total time spoken), ratios of linguistic markers to total words were computed (see *Table 3*).

Table 2

Average Frequencies of Linguistic Variables in Different Gender Dyads

	Mean (Standard Deviation)				Range			
Markers	M/M	M/F	F/F	F/M	M/M	M/F	F/F	F/M
Pronouns	7.6 (3.5)	8.3 (4.3)	9.4 (4.9)	8.4 (3.9)	9-21	8-28	8-33	6-25
Self-References	5.9 (3)	6.5 (3)	7.3 (4.2)	7.6 (4)	1-11	3-13	2-20	1-16
Dependent Clauses	3.1 (2.4)	4.0 (2.4)	5.2 (4.2)	3.9 (3.3)	2-12	4-15	1-24	1-17
Fillers	31.4 (11.8)	28.9 (13.7)	31.7 (12.1)	32.7 (9.2)	18-64	12-59	7-59	20-57
Intensive Adverbs	4.7 (2.8)	5.8 (3.1)	5.4 (2.6)	4.7 (3)	1-11	1-15	1-10	1-14
Justifiers	1.6 (1.1)	2.4 (1.5)	2.9 (2.4)	2.3 (2.2)	0-11	0-5	0-8	0-9
Negations	8.4 (3.9)	8.9 (3.7)	8.6 (4.1)	8.7 (3.9)	2-16	3-16	4-17	3-15
Tag Questions	.2 (.5)	.2 (.4)	.1 (.5)	.2 (.5)	0-2	0-1	0-2	0-2
Hedges	4.7 (2.9)	5.2 (2.9)	4.1 (3.8)	6 (3.4)	1-12	1-12	0-12	0-13
Interruptions	1.8 (2)	2.1 (2.6)	2.9 (2.8)	1 (1)	0-6	0-9	0-9	0-3
Total Words	504.3 (54.6)	546.9 (65.2)	544.8 (81.3)	563.5 (69.3)	389-585	461-687	405-689	424-661

Note. M/M = Male speaking with a male conversation partner, M/F = Male speaking with female conversation partner, F/F = Female speaking with female conversation partner, F/M = Female speaking with male conversation partner

Table 3

Ratios of Linguistic Markers to Total Number of Words in Different Gender Dyads

	Mean Ratio (Standard Deviation)			
Markers	M/M	M/F	F/F	F/M
Pronouns	.030 (.006)	.030 (.009)	.034 (.010)	.031 (.009)
Self-References	.012 (.006)	.012 (.005)	.013 (.007)	.014 (.006)
Dependent Clauses	.012 (.005)	.526 (.278)	.560 (.285)	.014 (.008)
Fillers	.062 (.021)	.053 (.024)	.059 (.026)	.061 (.016)
Intensive Adverbs	.009 (.005)	.011 (.005)	.010 (.005)	.009 (.005)
Justifiers	.003 (.002)	.005 (.003)	.005 (.004)	.004 (.004)
Negations	.017 (.009)	.016 (.007)	.016 (.006)	.016 (.007)
Tag Questions	.000 (.001)	.000 (.001)	.000 (.000)	.000 (.001)
Hedges	.010 (.006)	.010 (.006)	.008 (.008)	.011 (.007)
Interruptions	.003 (.004)	.004 (.005)	.005 (.005)	.002 (.002)

Note. M/M = Male speaking with a male conversation partner, M/F = Male speaking with female conversation partner, F/F = Female speaking with female conversation partner, F/M = Female speaking with male conversation partner

Inferential statistics

A repeated measures 2 x 2 MANOVA with a between-subject factor of speaker gender and within-subject factor of communication partner gender was performed. No statistically significant effects of speaker gender were observed, *F(10, 29)*= .412, *p* = .929, η^2 = .124. However, statistically significant effects of communication partner gender were observed, *F(10, 29)*= 15.573, *p* <.000, η^2 = .843. Pairwise comparisons revealed two variables with significantly different means in the communication partner conditions: dependent clauses (F(1,38)=144.150, *p*<.000, η^2 = .791) and interruptions (F(1,38)=5.231, *p*=.028, η^2 = .121). Speakers used more dependent clauses and interruptions when they were talking to females compared to when they were talking to males. No other dependent variables reached statistical significance. There was no statistically significant interaction between speaker gender and communication partner effects, *F(10, 29)*= 1.061, *p* = .421, η^2 = .268 (see *Table 4*).

Table 4

Pairwise Comparisons of Linguistic Variables in Different Gender Dyads

	Mean (Standard Deviation)				
	Communication Partner Gender				
Variables	Male	Female	F	*p*	η^2
Pronouns	.030 (.007)	.032 (.009)	.601	.443	.016
Self-References	.013 (.006)	.012 (.006)	.041	.841	.001
Dependent Clauses	.013 (.007)	.543 (.278)	144.150	.000*	.791
Fillers	.062 (.018)	.056 (.025)	2.662	.111	.065
Intensive Adverbs	.009 (.005)	.010 (.005)	2.201	.146	.055
Justifiers	.004 (.003)	.005 (.004)	3.436	.072	.083
Negations	.016 (.008)	.016 (.007)	.147	.703	.004
Tag Questions	.000 (.001)	.000 (.001)	.000	.984	.000
Hedges	.010 (.006)	.009 (.007)	1.541	.222	.039
Interruptions	.003 (.003)	.004 (.005)	5.231	.028*	.121

* p < .05

Chapter 8: Discussion

The purpose of this study was to examine how communication partner gender influences a speaker's language style and to determine which speakers, male or female, accommodate their speech more for their partners. Transcript analysis of conversations of varying dyad compositions using linguistic markers supported in previous literature was conducted to test this (see *Appendix B*). There is insufficient data to reject the first null hypothesis; the results do not suggest a difference between male and female speakers. Dependent clauses and interruptions increased significantly with the female communication partner compared to with the male partner, regardless of speaker gender. Therefore, there is evidence to reject the second null hypothesis in that the gender of the communication partner influences speakers' language from the linguistic markers measured. There was no indication that speaker communication accommodation for communication partner was more frequent in a particular speaker gender group.

The data in the current study regarding the first hypothesis are consistent with most of the research literature about gendered language. In their meta-analysis, Leaper and Ayres (2007) found that male and female language, especially of college-aged students, is generally similar. Martin and Craig (1983) observed a small number of tag questions in their transcripts and could not correlate interruption and qualifier (hedge) use to either gender, especially females. In the present study, only 11 tag questions were produced in about 240 minutes of conversation. Furthermore, frequency of interruptions and hedges could not be attributed to a particular dyad composition. Because few associations have

been made between speaker gender and use of proposed gender-speech markers, it is more likely that certain environmental and conversational moderators have a larger influence, if any (Leaper & Ayres, 2007).

The present data conflict with some previous results reported, particularly in respect to the effect of communication partner's gender. Previous literature indicates observed differences in female speakers' use of personal pronouns (Hirschman, 1973), tag questions (Lapadat & Seesahai, 1977), and hedges (Martin & Craig, 1983) when communicating with male and female communication partners. Bilous and Krauss (1988) also found that female speakers were more likely to converge their speech style to their communication partners than male speakers− consistent with the second hypothesis at the beginning of this paper. Mulac et al. found that gender of speaker and communication partner significantly influenced the language used in conversation by measuring similar linguistic codes to the ones in this experiment (1988).

Until this point, few studies have examined the influence of a communication partner's gender on speech. The results indicate that speakers will use interruptions more with female communication partners than with male partners. This has some consistency with previous studies that indicate females are the more interrupted gender. Hirschman (1973) found that female SG dyads have higher frequencies of interruptions than other dyad combinations. Similarly, McMillan et al. (1977) found that men interrupted women more than women interrupted men (in mean frequency only and Hannah and Murachver (1999) found that SG dyads had more interruptions than MG dyads. The present study indicates

that speakers, regardless of gender, interrupt females more than males. These results may be evidence to support Lakoff's female subordination theory, though we would have expected to see greater differences in other female-typed language, such as tag questions or hedges. The results may also be an effect of the communicative context or style of the individual confederates, as the female communication partners may have provided the speakers with more opportunities to interrupt (e.g. more conversational turns). Though the explanation is still unclear, the results from this study parallel findings from previous studies.

Our findings regarding dependent clauses are difficult to explain based on previous literature. Beck (1978) indicated that male *speakers* demonstrate greater syntactic complexity than females, but this was not in conversational mixed-gender dyads. Contrarily, Poole (1979) indicated that middle-class female *speakers* use a more structurally complex speaking style. However, neither of these studies examines the gender of the communication partner's influence. One possible explanation for why speakers in the current study use dependent clauses most when speaking to females is because the female communication partners were more *facilitative* than males, actively encouraging speakers to use syntactically rich utterances through use of more vocal and visual back channel responses. Hannah and Murachver (1999) found that communication partner's speaking style is more influential on a speaker's language than other moderators (e.g. gender). However, if females were more facilitative, it is likely that other measures, not just interruptions and dependent clauses, would also have been significant, which is not the case.

Though only two of ten markers reached statistical significance pertaining to communication partner gender, there may be trend level significance in the others measured. In comparing the mean ratios, the male speakers generally maintained similar frequencies in all linguistic markers between both male and female communication partners except fillers. Single-gender male dyads showed the highest ratio of fillers than any other gender dyad, consistent with Hirschman (1973) who stated that these combinations were the least conversationally fluent of all dyadic combinations. Similarly, female speakers in the study showed general consistency in ratios in each conversational condition, though increased their use of pronouns, dependent clauses, and interruptions with female communication partners and an increased use of hedges with the male communication partner. It was also observed that with the male communication partner, each speaker group used less intensive adverbs, interruptions, and justifiers than with the female communication partner. These trends are consistent with previous literature suggesting female conversational disorganization (Poole, 1979) and communication modification based on gender/perceived role (Helweg-Larsen et al., 2004; Crosby & Nyquist, 1977; Lakoff, 1975). Whether these trends are genuinely reflective of actual gender differences is the root of this research topic and is not yet statistically substantiated.

Unlike these previous studies, the current experimental design imposed more controls on status and familiarity of the trained communication partners. The present study also used a non-personal, conversational topic rather than a problem-solving, monologic, or

interview task and had each speaker interact with *both* a male and female communication partner in a within-subject research design. It is likely that these changes to the experimental design contributed to conflicting findings between our study and other studies.

Another factor potentially explaining discrepancies in the literature regarding the significance of gender on language variables is that while several studies, including this one, measured the frequency of linguistic markers in conversation, the definitions of these specific markers varies from article to article. For example, Hirschman (1973), Mulac et al. (2001), and the present study measured personal pronouns. Hirschman defined these as words like *I, you, we, someone,* and *people*, Mulac et al. as "words that stand for beings," and the present study as words that represent beings, objects, or things, though not including indefinite pronouns like *people, someone, something*, etc. Such an inconsistency in definitions when measuring similar variables is likely to be a culprit for differences in results (for more information, see *Appendix D*).

A theoretical explanation for a diminishing distinction between male and female language pattern is rooted in social and biological differences between males and females. When Lakoff and others first proposed and studied ideas about gendered language, widespread social reform caused many to start reexamining the concept of gender. According to Chambers (2009), the great issues surrounding the feminist movement dealt with stereotypes and perpetuated gender roles (e.g. physical labor being associated with masculinity and nurturing being associated with femininity); while

females may *tend* to do something and males may *tend* to do something, these tendencies are societal, not biological. In other words, because society may *impose* a facilitative role on women and a nonfacilitative role on men, people may behave consistent with their socially prescribed gender role; however, this does not correlate to a biological predisposition to act as such (Hannah & Murachver, 1999; Chambers, 2009). Perhaps generations subsequent to the birth of feminism have been reared to appreciate gender equality, thus propagating the *convergence* between gender-typed activities, including linguistic style. And the effects of any perceived style differences, because speakers still *expect* them, are mitigated by the principles of Communication Accommodation Theory.

Limitations

There are several possible confounding factors to the results of the present study. The first is the number of different trained communication partners− there were four different female and four male communication partners used. While it was required that they were native speakers of Standard American English, their conversation style was not controlled (e.g. rate, intonation styles, questioning style, and use of back-channel responses were likely different between all partners). The purpose of this was to leave each communication partner unbiased to the specific measures of the study. However, as mentioned earlier, Hannah and Murachver (1999) indicated that trained confederate speaking style (facilitative versus nonfacilitative) was more influential on speech than speaker or confederate gender and therefore lack of control may have adversely affected the outcome of the study, though there is no data from this study to indicate such an effect. To investigate whether gender or communication style is truly more influential

than the other, a future study should examine male and female speakers conversing with both male and female communication partners trained to use both facilitative and nonfacilitative communication styles.

When generalizing these results, as with the results from any previous literature, one should take a level of caution. With many university-related studies, the most readily available participants are educated males and females, aged 18-22, likely coming from industrialized, western, democratic societies. Henrich, Heine, and Norenzayan suggest that the widespread use of participants from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) backgrounds, while convenient, may adversely affect results as this narrow demographic is not truly representative of the large-scale population (2010). Given that research on gendered-language has historically examined WEIRD participants' behaviors and that many of our participants were university students in their early-to-middle twenties, previous findings and those found in the present study are only ethically applicable to aforementioned population. As Poole (1979) found, socioeconomic status influences the language (e.g. syntactic complexity) a particular speaker uses, measured by the frequencies of linguistic markers similar to the ones used in this study. Future studies examining gender-typed language should focus on recruiting a variety of participants from different age, education, and economic backgrounds to expand relevancy of results to a larger population.

Implications and Future Directions

The results from this study are a catalyst for future studies. However, if future studies continue examining gender's interaction with language, several changes to investigation should be applied. In addition to broadening the participant base, researchers should reconsider the variables used to examine potential gender-linguistic differences. Perhaps the inconsistencies found in the history of this topic suggest that these codes do not differentiate genders. Rather than examine such overt linguistic characteristics, research should focus on the impact of communication partner gender with communication style, having participants communicate with both trained male and female communication partners using facilitative and nonfacilitative speaking styles. If popular culture still insists there is a difference with insignificant evidence in favor of one, perhaps gendered language is merely an assumed, self-propagating idea.

Chapter 9: Conclusion

This study investigated the influence a communication partner's gender has on a speaker's linguistic style and whether the influence was greater for male or female speakers. This was examined through transcript analysis using linguistic variables indicated by previous studies to show differences between speakers of different genders. The results indicated that communication partner gender had an influence on certain aspects of one's language but speaker gender was not influential. Research over the past fifty years has been unsuccessful in providing consistent evidence about gendered-language, not to mention identifying the communication partner's gender influence. Anecdotal evidence does not help to put such an issue to rest, as many still believe in true linguistic differences between the sexes. The continued discrepancy between anecdotal and quantitative evidence suggests the means used to measure the phenomenon need to be revised, should it continue to be researched.

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Appendix A

Codes and Variables

SYNTAX

Total number of words: Total number of words spoken in a language sample.

(DC) Dependent clauses: A phrase that contains a subject and verb but cannot stand alone as a full sentence. A dependent clause usually begins with a subordinating conjunction (because, since, when, although, if) or a relative pronoun (who, which, that). *Paul wants an employee who is willing to cut corners* **or** *Sam likes guitars, which is an acceptable hobby* **or** *we felt that his tenure should've been cut before he became chair.* Mulac et al. (1990), Mulac and Lundell (1994)

**If a subordinating conjunction or relative pronoun is implied (*I think we should go swimming*), DO NOT code a dependent clause

SEMANTICS

(NO) Negations: An indication of what something is not; using *not*, *don't*, *can't*, etc. *John doesn't like salad* **or** *We can't have any gluten*. (Mulac et al 1988)

1) Turning an affirmative statement into its opposite denial (e.g., You **don't** feel like looking, I am **not** the winner).
2) Negating a noun or verb using a negative adjective (e.g., There is **no** winner), a negative pronoun (e.g., **Nobody** is the winner), or a negative adverb (e.g., I never was the winner).
3) In "I don't want any"… only the "don't" is coded.
4) Double negatives are not coded ("I don't not want soup")

(IA) Intensive adverbs: Expresses how complete a quality is. As with all adverbs, must modify a verb, adjective, phrase, clause, or another adverb (e.g., very, really, quite, entirely, a little, a bit, pretty, more). May use *very, really, extremely, crazily,* etc. *Molly is extremely level-headed* **or** *Connie is overly sensitive about certain things*. McMillan et al. (1977), Mulac et al. (1988)

ASSERTION

(H) Hedges:

1) A word or phrase that changes how absolute or certain a statement is (e.g., sort of, somewhat, kind of, probably, about). *Addison is kind of a bad kisser***.** McMillan et al (1977)

Mulac et al (1988), Martin and Craig (1983)

2) Verb/verb phrases that indicate a speaker's uncertainty in a fact or assertion. May use *wonder, speculate, think, suppose, reckon,* etc. *I wonder if I put my keys in the washing machine* **or** *I reckon he's going down the wrong path* **or** *I think Milton left the banana in your shoe*.

***I don't think so*, *I can't remember, I don't believe so* are NOT coded if they are literally intended by the speaker. Otherwise, they are hedges

(TQ) Tag Questions: A question that follows an assertion used as a request for support or validation of the preceding statement. *It's cold out.* ***Isn't it?*** McMillan et al (1977)

(J) Justifiers: A reason given for a previous statement by the speaker. *It's wet* ***because it's raining***. May begin with words such as: <u>because</u>, <u>so</u>, <u>hence</u>, <u>therefore</u>, <u>in which case</u>, <u>in that case</u>… Mulac et al. (1988)

(+/.) Interruptions: Breaking into a person's turn in an apparent attempt to take over the floor- regardless of whether the interruption was successful in doing so. (NOT including back-channels such as "yeah", "mm-hmm"**,** and not including self-interruptions/self-corrections). McMillan et al (1977)

(F) Fillers/Filled pauses: Words and phrases used without inherent semantic intent or to maintain speaker role (you know, I mean, it's like, umm, uhh, like). *John* ***uhh*** *went over there* or ***I mean****, I really like t.v.,* ***you know***. Hirschmann (1973), Mulac et al. (1988)

<u>REFERENCES</u>

(PRO) Personal Pronouns: Words that represent beings, objects, or things (I, me, he, her, people, persons, someone, him, her, it, etc). <u>Does not include</u> *you know* (the filler). *He thinks it's great* **or** *He proposes you do it yourself***.** Hirschman (1973), Mulac et al (1988)

(SR) I references: The word "I" when referring to self (speaker). <u>Does not include</u> *I mean* (the filler). *I think you smell***.** Hirschman (1973)

Appendix B

Marker	Gender-Link	Context	Citation
Tag Questions	F	SG dyadic conversations, familiar and unfamiliar	Crosby and Nyquist, 1977
	F	SG/MG dyads, unfamiliar	McMillan, Clifton, McGrath, and Gale, 1977
	F	Impromptu monologues	Mulac and Lundell, 1986
	M	Interviews	Dubois and Crouch, 1975
	M	Transcription ratings	Lapadat and Seesahai, 1978
Negations	F	Interviews	Gleser, Gottschalk, and John, 1959
	F	Impromptu monologues	Mulac and Lundell, 1986
	F	In-class speeches	Mulac, Lundell, and Bradac, 1986
Dependent Clauses	M	Conversations with trained partner (M or F)	Beck, 1978
	F	Structured interviews	Poole, 1979
Intensive Adverbs	F	SG/MG dyadic conversations, unfamiliar	McMillan, Clifton, McGrath, and Gale, 1977
	F	Impromptu monologues	Mulac and Lundell, 1986
	F	In-class speeches	Mulac, Lundell, and Bradac, 1986
	F	SG/MG dyadic conversations, unfamiliar	Mulac et al., 1988
Hedges/Qualifiers	F	SG dyadic conversations, familiar and unfamiliar	Crosby and Nyquist, 1977
	F	SG/MG dyadic conversations, unfamiliar	Martin and Craig, 1983
	F	SG/MG dyads, unfamiliar	McMillan, Clifton, McGrath, and Gale, 1977[1]
Justifiers	M	Impromptu monologues	Mulac and Lundell, 1986
	F	SG/MG dyadic conversations, unfamiliar	Mulac et al., 1988
Personal Pronouns	F	SG/MG dyadic conversations, unfamiliar	Hirschman, 1973[2]
	F	Interviews	Gleser, Gottschalk, and John, 1959
	F	Impromptu monologues	Mulac and Lundell, 1986
	F	SG/MG dyadic conversations, unfamiliar	Mulac et al., 1988
	F	Structured interviews	Poole, 1979
Self-References	F	Interviews	Gleser, Gottschalk, and John, 1959
	M	SG/MG dyadic conversations, unfamiliar	Hirschman, 1973
	M	In-class speeches	Mulac, Lundell, and Bradac, 1986
	M	Written, SG/MG dyadic conversations, monologues	Mulac, Bradac, and Gibbons, 2001
	F	Structured interviews	Poole, 1979
Fillers	F	SG/MG dyadic conversations, unfamiliar	Hirschman, 1973
	M	Impromptu monologues	Mulac and Lundell, 1986
	F	In-class speeches	Mulac, Lundell, and Bradac, 1986
	M	SG/MG dyadic conversations, unfamiliar	Mulac et al., 1988
Interruptions	M	SG/MG dyadic conversations,	McMillan, Clifton, McGrath, and Gale, 1977

		unfamiliar	
	M	SG/MG dyadic conversations, unfamiliar	Mulac et al., 1988
	F	SG/MG dyadic conversations, unfamiliar	Bilous and Krauss, 1988
	M	Conversations with trained conversation partners	Hannah and Murachver, 1999
	F	SG/MG dyadic conversations, unfamiliar	Hirschman, 1973
Utterance Length	F[3]	In-class speeches	Mulac, Lundell, and Bradac, 1986
	F[3]	Impromptu monologues	Mulac and Lundell, 1986
	M[3]	Structured interviews	Poole, 1979
	F[4]	SG/MG dyadic conversations, unfamiliar	Bilous and Krauss, 1988
	F[4]	SG/MG dyadic conversations, unfamiliar	Hirschman, 1973
	M[5]	Conversations between spouses, familiar	Fishman, 1978

NOTES

[1]Included modal verb constructions and imperatives-as-questions
[2]Included *I, you, we, someone, people,* etc.
[3]Utterance lengths measured by mean length utterance/sentence
[4]Utterance lengths measured by total number of words
[5]Utterance lengths measured by number of statements

Appendix C

Script

EACH participant will experience both conditions, but they will be counterbalanced so we can check for order effects post-hoc:

Participants with EVEN ID numbers:

1. Female communication partner- 3 minute conversation (half will be about cell phones, half will be about reality TV)
2. Male communication partner- 3 minute conversation (half will be about cell phones, half will be about reality TV)

Participants with ODD ID numbers:
Step 2, then step 1.

Instructions for CELL PHONE conversation:

Starter:

"I just got a new cell phone and I can't decide whether I like it – I'm afraid it's smarter than I am! Do you carry a phone?"

Continuants (not all need to be used, and other things may be used-- but these are preferable to keep the conversation relatively consistent across participants):

If yes:

"Do you use it for texting, web, and all that, or just talking?"
"How do you feel if you forget it at home or your battery dies?"
"Are you happy with your provider/Do you get good service?"
"Do you know anyone who doesn't have one? How do you contact them?"

If no:

"Does it bother anyone you know that you don't have one?(Who?)"
"Has it ever caused a problem for you?(What?)"
"What do you do when you need to talk to someone on the fly?"
"Where do you look for public pay phones?"
mm-hmm, uh-huh, oh really?, oh no!, yeah…

Finisher:

"I guess I have a very mixed relationship with my phone…sometimes I can't live with it, but I don't know how I'd live without it anymore."

Instructions for REALITY TELEVISION conversation:

Starter:

"I thought I hated reality television, but I got sucked into a (Jersey Shore/Hoarders/ insert one) marathon over the weekend…what do you think about those kind of shows?"

Continuants (not all need to be used, and other things may be used-- but these are preferable to keep the conversation relatively consistent across participants):

If yes:

"Who do you know that can't get enough reality tv?"
"Tell me about your guilty pleasure television show"
"How close to reality are they, do you think they are scripted a little?"
"Which one is so bad it shouldn't be allowed on the air?"
"Which one might even qualify as great television?"
mm-hmm, uh-huh, oh really?, oh no!, yeah…

If no tv/no reality watched:

"Have you ever had one/watched tv?"
"What kind of tv do you like to watch?"
"What was the best show ever on television?"
"What do you do instead?"

Finisher:

"It probably wouldn't hurt me to watch less tv, but I'm not going to beat myself over it – at least I get some laughs out of the really outrageous shows."

Appendix D

Participant Schedule (repeats every four participants)

Participant	Communicative Situation Order			
1	Male-reality TV	Male- Freedom from want	Female- cell phone	Female- Waiting room
2	Female-cell phone	Female- Waiting room	Male- reality TV	Male- Freedom from want
3	Male- cell Phone	Male- Waiting room	Female- reality TV	Female- Freedom from want
4	Female- reality TV	Female- Freedom from want	Male- cell phone	Male- Waiting room