

# Influence of Communication Partner's Gender on Language



**Adrienne B. Hancock<sup>1</sup> and Benjamin A. Rubin<sup>1</sup>**

## **Abstract**

Forty participants (20 male) had 3-minute conversations with trained male and female communication partners in a repeated-measures, within-subject design. Eighty 3-minute conversations were transcribed and coded for dependent clauses, fillers, tag questions, intensive adverbs, negations, hedges, personal pronouns, self-references, justifiers, and interruptions. Results suggest no significant changes in language based on speaker gender. However, when speaking with a female, participants interrupted more and used more dependent clauses than when speaking with a male. There was no significant interaction to suggest that the language differences based on communication partner was specific to one gender group. These results are discussed in context of previous research, communication accommodation theory, and general process model for gendered language.

## **Keywords**

gender, communication accommodation, dyads, discourse analysis, code-switching

Gendered language refers to words and syntax used differentially by males and females. Over decades of examining transcripts and associated perceptions of gender, several caveats to the idea of gendered language have emerged. Language differences between men and women can be subtle and influenced by several mediating factors (Leaper & Ayres, 2007; Palomares, 2009). When speakers notice these subtle differences and appreciate a communication partner's perspective, language may be leveraged to affect interpersonal communication and to either reinforce or mitigate differences (Giles, 2008; Giles & Gasiorek, 2013). This study examines whether a

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<sup>1</sup>The George Washington University, Washington, DC, USA

## **Corresponding Author:**

Adrienne B. Hancock, Department of Speech and Hearing Sciences, The George Washington University, Washington, DC 20052, USA.

Email: hancock@gwu.edu

communication partner's gender contributes to the context of an exchange to the extent that it influences a speaker's language output. It is valuable to begin with a brief review of gendered language and models of how the interaction between a speaker and communication partner may influence gendered language.

## Gendered Language

If and how the two genders differ in language production has been studied for many years and in many different communication contexts. As a whole, this research suggests that females tend to relate experiences and express feelings in discourse, as evidenced by greater use of some *personal pronouns* (e.g., we, you), *negations*, *references to emotion*, and *intensive adverbs* compared with males (Gleser, Gottschalk, & John, 1959; Hirshman, 1994; Leaper & Ayres, 2007; McMillan, Clifton, McGrath, & Gale, 1977; Mulac & Lundell, 1986; Palomares, 2008; Poole, 1979). Females use about three times as many pronouns involving the other speaker (i.e., we, you; Hirshman, 1994) and almost six times as many intensifiers, which are said to direct the listener to the emotional, rather than the cognitive, meaning of the message (McMillan et al., 1977).

Other feminine language, typically referred to as *hedges* (e.g., sort of, probably), have been observed and are thought to represent female uncertainty, self-doubt, and internalization of negative interactions. Additional language variables in this vein are syntactic based. McMillan et al. (1977) found that females used twice the amount of *tag questions* (e.g., "Nice day, isn't it?"), *modal constructions* (e.g., "Could you do that please?"), and *intensive adverbs* compared with males during group problem-solving activities. On the other hand, Dubois and Crouch (1975) found that males use more tag questions than females in conversational and interview group settings. Beck (1978) found that females' communication was less organized than males'. Females used shorter mean length of sentences and fewer *dependent clauses* compared with males. Females tend to be more fluent, however, and are less likely to use *fillers* (Mulac & Lundell, 1986; Mulac, Wiemann, Widenmann, & Gibson, 1988).

Leaper and Ayres' (2007) meta-analysis examined previously reported gender differences using a series of moderators, including gender of group, size of group, familiarity of participants, and interview context. They examined both language production and perception studies. Overall, the findings suggest that men are more talkative and assertive than women and that women use more affiliative (i.e., affirmative or engaging) speech than men; however, the small effect sizes ( $d < .2$  for each) show that the differences are negligible. These results cast doubt on the previously proposed conclusions about gendered language described above. Many of the overall gender effects changed when mediating variables were considered. For example, men were more talkative overall, especially in disagreement or nonpersonal conversations, yet women were more talkative with classmates, dating partners, and in parent-child interactions. It appears that gendered language has caveats.

One important and potentially informative mediating variable is the gender of the communication partner. For example, Mulac et al. (1988) measured the occurrences

of both masculine (*interruptions and directives*) and feminine (*questions, justifiers, and intensive adverbs*) speech characteristics in mixed-gender (MG) and single-gender (SG) dyads during a cooperative conversational activity. The speakers used more gender typical language when speaking to a member of the same gender but shifted their speech in MG dyads to converge with their partner of the opposite gender. Similarly, Leaper and Ayres (2007) noted differences in effect sizes of SG and MG dyads for assertive speech, where the speaker is often the agent or subject of the conversation ( $d = .29$  vs.  $.03$ , respectively). Although these are not large effect sizes, there is indication that the gender of the communication partner can affect the speech style, in that the presence of the opposite gender may cause an attenuation of the gender-typed style.

Whereas inconsistent results in observational studies prohibit conclusive statements about gender differences, studies analyzing variables in combinations and studies of listener perception appear to be more congruent with conventional stereotypes of gendered language (Mulac, 2006; Mulac et al., 1988; Mulac & Lundell, 1982, 1986; Quina, Wingard, & Bates, 1987). For example, reported significant correlations between perception of male speaker and use of direct and succinct language, as well as between perception of female speaker and use of indirect and elaborate language. Though some of the conclusions in previous literature are conflicting, there is empirical support suggesting a difference in masculine and feminine speech characteristics in a variety of communicative contexts.

### *Theories Explaining Communication Interactions*

Many theories have been posited to explain gendered language. Dominance Theory explains both verbal and nonverbal productions as reflections of social status; a dominant individual's language is more assertive, concise, and competitive, whereas a submissive individual's is more cooperative and emotional, seeking to maintain agreement and intimacy (Helweg-Larsen, Cunningham, Carrico, & Pergram, 2004). Dominance Theory and Lakoff's (1975) and Tannen's (1990) gendered language proposals suggest that the characteristics of male and female speech are a result of different social importance or roles, and that language is used to either gain dominance by men or to demonstrate submission by women. The intentional use of language to negotiate power differentiates this theory from a more modern explanation of gendered language, which considers other cultural and situational factors.

Mulac and colleagues posit that gender is a cultural phenomenon and that gendered speech is similar to cultural linguistic variations and not necessarily a manifestation of dominance and subordination (Mulac, Bradac, & Gibbons, 2001; Mulac & Lundell, 1982, 1986). This cultural explanation is supported by a robust gender-linked language effect (GLLE), in which the so-called feminine language is associated with socio-intellectual status and aesthetic quality with intention to affiliate (i.e., affirm or engage the partner), and masculine language is associated with dynamism with intention to self-assert (Mulac, 2006). The GLLE is likely based in explicit (i.e., stereotypes) and implicit understanding of a gender subculture or schemas, which, according

to one general process model, may then influence a communication exchange (Cargile & Bradac, 2001; Mulac, Giles, Bradac, & Palomares, 2013).

Cargile and Bradac's (2001) General Process Model of Speaker Evaluations was among the first to fully consider the recipient's role in shaping the speaker's behavior. In this model, the recipient's attitudes (shaped by cultural factors, functional biases, and biology) are factored into the recipient's evaluations of the speaker, which then influence the speaker's language behavior. Attitudes about race, education, or gender can influence the information attended to by the recipient (Giles & Marlow, 2011); however, the effect of the recipient on the speaker is relatively less certain. When Mulac et al. (2013) present the model as it applies to the GLLE, the cycle of influence is more specific: The speaker's behavior is shaped by the speaker's schemata/stereotypes and perception of context, which is shaped by the situation and the recipient's behavior toward the speaker. Therefore, attributes of the speaker (e.g., stereotypes) and the context (e.g., situation and recipient) shape the speaker's language.

Existence of gender schema and stereotypes were confirmed in an empirical test by Mulac et al. (2013) when participants used different language when writing as a man compared with when writing as a woman. Yet in the same study the writers did not appear to be influenced by the gender of the intended recipient, calling into question the influence of perceived context (i.e., recipient attributes) on the writer/speaker's language. The authors suggested that the writer's guise may have overshadowed considerations regarding the gender of the recipient, and therefore a more explicit image of the recipient and a more interpersonally engaging task could be a better empirical test of the recipient's influence on speaker's language. Hence, the focus of the current study is to examine the *context* component of the general process model by comparing speakers' live conversations, one with a male and one with a female recipient.

Exploration into the role of context in gendered language requires consideration of when and why speakers would change their communication. Communication Accommodation Theory (CAT) provides an explanation for verbal and nonverbal language behaviors that occur when there are perceived differences between communicators. Communication accommodation is not concerned with gender per se, but rather with explaining how clashing linguistic styles are mitigated in conversation. The differentiating patterns of gendered language and the GLLE regarding personality attributes suggest that people require strategies for coordinating conversation and facilitating interactions with the opposite gender. Accommodation refers to changing communication behavior to indicate attitudes toward the communication partner (Giles & Ogay, 2006). Not only can accommodating facilitate communication, but it also can be used to gain approval and social rewards (Giles & Gasiorek, 2013; Giles & Ogay, 2006). Similarly, too much or too little accommodation affects one's evaluation of a speaker and the interaction (Gasiorek & Giles, 2012). According to CAT, people will *converge* toward their partners' communication patterns if agreement is sought or if they intend to minimize differences, whereas *divergence* serves as a distancing mechanism and hampers communication (Giles & Ogay, 2006). If differences

are important to maintain for facilitating interactions, *speech complementarity* can occur. Speech complementarity, unlike convergence and divergence, indicates that both parties agree to the roles and that they accommodate according to their respective roles. This may appear divergent except that the intention is to smooth the interaction (e.g., a supervisor may use a dominant speech style, whereas an employee uses a subordinate style).

Some studies indicate that accommodations may be limited to female speakers. Females tend to increase the use of emotional words and uncertainty indicators, and decrease *personal pronouns* and *interruptions* in MG compared with SG dyads (Hirschman, 1994; McMillan et al., 1977; Palomares, 2008). In Bilous and Krauss (1988), females, unlike males, altered their *amount of talking* and frequency of *interruptions* depending on the gender of their communication partner. These studies suggest that female speakers, consciously or unconsciously, sensed the need or desire to alter their style with male partners. This would be consistent with the GLLE, which associates females with socio-intellectual status and aesthetic quality with intention to affiliate (i.e., affirm or engage the partner).

Regardless of speaker gender, female communication partners evoke particular language from a speaker. Although men *interrupt* more often than females overall, men and women both interrupt their female communication partners more than male communication partners (McMillan et al., 1977). In a study of conversations with strangers, there were no differences in frequency of *hedges* (e.g., maybe, I guess) used by men and women when the communication partner's gender was male (Martin & Craig, 1983). It was only when talking to females that women increased and men decreased the number of hedges used. This could 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. This would be an example of mutual convergence in the female–female conversation. It is difficult to know the intention of the apparent divergence in male–female dyads; it could be divergence or speech complementarity. In either case, it supports the general process model's indication that context, more specifically the gender of communication partner, influences a speaker's language.

## Purpose

A specific genderlect has not been consistently identified in the research literature, particularly in light of the mediating context variables presented by Leaper and Ayres (2007). Several studies over the last few decades indicate that both men and women accommodate in MG dyads, although comparisons are difficult across studies with varied designs and communication contexts. It remains uncertain whether females are the predominant source of accommodation—either because they alter their style most frequently and/or because they elicit more accommodations from speakers with stereotypes of gendered language. The present study uses a repeated-measures design and analyzes the male and female language in same- and mixed-gender conversational dyads to answering the following questions:

1. Do males and females use any of the following linguistic variables with different frequencies? (See Appendices A and B for specific details):
  - Personal pronouns
  - Self-references
  - Negations
  - Intensive adverbs
  - Hedges
  - Tag questions
  - Dependent clauses
  - Fillers/filled pauses
  - Interruptions
  - Justifiers
  
2. Does a speaker's language change based on gender of communication partner? And if so, is this effect different for male and female speakers?

Based on previous literature, we hypothesize that male and female speakers may communicate differently, that a female communication partner will influence a speaker's linguistic output to be more indirect, and that female speakers will converge to their partner's style more than males will converge.

## Method

### *Participants*

Forty participants were all native speakers of American English and reported no diagnosis of cognitive, psychological, or language disorder. Males ranged in age from 18 to 59 years ( $M = 26$ ,  $SD = 10.5$ ), and females ranged from 18 to 51 years ( $M = 23.5$ ,  $SD = 9.7$ ). Participants were recruited by word of mouth from the Washington, D.C. metropolitan area and received \$10. This study followed procedures approved by the institutional review board.

### *Communication Partners*

Eight communication partners (four male), ranging in age from 21 to 32 years, were trained by the authors to elicit conversation according to predetermined scripts concerning cellular phones or reality television (see Appendix C). Before interacting with recruited participants, these partners practiced with each other and the authors to show adequate proficiency in conversing and following the general outline of the script. Although each partner was given the same scripts, they 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. None of the participants knew their two conversation partners prior to the study.

### *Conversation Procedures*

A trained male or female communication partner engaged in a 3-minute conversation with the participant about one of the two prescribed topics and then exited the room. The next communication partner (of other gender) then entered and discussed the other topic with the participant. The order of communication partners and topics was counterbalanced. All conversations were audio recorded using an Olympus VN-4100PC recorder and Radio Shack microphone (Model 33-3013) and video recorded using a Panasonic SDR-H60 video camera.

### *Analysis of Language Samples*

Two research assistants, trained by the first author, transcribed the conversations using The Child Language Data Exchange System (MacWhinney, 2000), which includes software to transcribe audio recordings of narratives (CHAT software) and to code each sample for predetermined language variables (CLAN software). CHAT was selected because it was developed with the intention of providing a more accurate method for transcription and analysis compared with doing so by hand. CLAN is also beneficial in that it automates a portion of data analysis by performing functions such as frequency counts of specific words and coded variables.

The first 3 minutes of each conversation were transcribed verbatim into a CHAT file, separating participant and partner utterances. To ensure accuracy, a second person reviewed each completed transcription. If this reader disagreed with a transcription, a third reader settled any disagreements.

Using the CLAN program, the participant's utterances were coded for the variables listed in Research Question 1 (see Appendix A). Additionally, the number of words uttered by the participant was counted for use as a denominator in measures calculated for analysis controlling for the participants' range of speech rates and proportions of talking time. Two people independently coded the same 20% of the collected samples and compared coding. They achieved adequate point-to-point agreement (i.e., 80%) and added details to the definitions of the variables to further improve reliability.

## **Results**

### *Conversational Consistency*

Palomares (2009) demonstrated influence of masculine or feminine topics on gendered language use but found no effect of neutral topic (i.e., places to eat). In consideration of this potential confound, two topics believed to be gender-neutral opinion topics (i.e., cell phones and reality television) were used. These topics were counterbalanced across participants to neutralize even an undetectable effect. Still,

**Table 1.** Descriptive Statistics for Linguistic Variables in Different Gender Dyads.

Markers	Mean (SD)				Range			
	M/M	M/F	F/M	F/F	M/M	M/F	F/M	F/F
Pronouns	15.25 (3.6)	16.6 (6.1)	16.75 (5.6)	18.8 (6.9)	9-21	8-28	6-27	8-33
Self-references	5.9 (3)	6.5 (3)	7.6 (4)	7.3 (4.2)	1-11	3-13	1-16	2-20
Negations	8.4 (3.9)	8.9 (3.7)	8.7 (3.9)	8.6 (4.1)	2-16	3-16	3-15	3-17
Intensive adverbs	4.7 (2.8)	5.8 (3.1)	4.7 (3)	5.4 (2.6)	1-11	1-15	1-14	1-10
Hedges	4.7 (2.9)	5.2 (2.9)	6 (3.4)	4.1 (3.8)	1-12	1-12	0-13	0-12
Tag questions	0.2 (.5)	0.2 (.4)	0.2 (0.5)	0.1 (0.5)	0-2	0-1	0-2	0-2
Dependent clauses	6.25 (2.8)	7.9 (3.1)	7.75 (4.5)	10.4 (5.8)	2-12	4-15	1-17	1-24
Fillers	31.4 (11.8)	28.9 (13.7)	32.7 (9.2)	31.7 (12.1)	18-64	12-59	20-57	7-59
Interruptions	1.8 (2)	2.1 (2.6)	1.0 (1)	2.9 (2.8)	0-7	0-9	0-3	0-9
Justifiers	1.6 (1.1)	2.4 (1.5)	2.3 (2.2)	2.9 (2.4)	0-3	0-5	0-9	0-8
Total words	504.3 (54.6)	546.9 (65.2)	536.5 (69.3)	544.8 (81.3)	389-585	461-687	424-661	405-689

Note. M/M = male speaking with a male conversation partner; M/F = male speaking with female conversation partner; F/M = female speaking with male conversation partner; F/F = female speaking with female conversation partner.

independent *t*-tests comparing the topics within each communication partner condition were conducted post hoc, and all resulted in  $p > .05$ . There was not a statistically significant effect of conversational topic on the dependent variables in this study, so topic was not included as a variable.

Although a general script provided parameters to limit the variation, communication partners prioritized speaking naturally and eliciting words from the participant. Post hoc analysis of the transcripts confirmed that all conversation partners did initiate and generally maintain the correct topic of conversation and use equivalent amount of continuants (i.e., questions or comments to continue the communication). Occasionally (i.e., 4 of 80 conversations), a conversation would naturally progress away from the topic toward the end of the 3 minutes. For example, when discussing applications on cell phones, a participant might mention use of recipe application, which would lead to food and restaurant comments. However, these topics were also gender neutral and personal-opinion based, and the communication partners were able to return to the topic if time permitted. These instances constituted only a minor portion of each conversation and were not particularly associated with any one partner, so words from these instances were included in the analysis.

### Descriptive Statistics

Descriptive statistics for the frequency of each linguistic variable in each of the four dyad conditions are reported in Table 1. To account for individual speaker differences (e.g., rate of speech and total time spoken), ratios of linguistic variables to total words were computed and used as dependent variables in statistical analyses (see Table 2).



**Table 2.** Descriptive Statistics for Ratios of Linguistic Variables to Total Number of Words in Different Gender Dyads.

Markers	Mean ratio (SD)			
	M/M	M/F	F/M	F/F
Pronouns	.030 (.006)	.030 (.009)	.031 (.009)	.034 (.010)
Self-references	.012 (.006)	.012 (.005)	.014 (.006)	.013 (.007)
Negations	.017 (.009)	.016 (.007)	.016 (.007)	.016 (.006)
Intensive adverbs	.009 (.005)	.011 (.005)	.009 (.005)	.010 (.005)
Hedges	.010 (.006)	.010 (.006)	.011 (.007)	.008 (.008)
Tag questions	.000 (.001)	.000 (.001)	.000 (.001)	.000 (.000)
Dependent clauses	.012 (.005)	.015 (.006)	.014 (.008)	.019 (.010)
Fillers	.062 (.021)	.053 (.024)	.061 (.016)	.059 (.026)
Interruptions	.003 (.004)	.004 (.005)	.002 (.002)	.005 (.005)
Justifiers	.003 (.002)	.005 (.003)	.004 (.004)	.005 (.004)

Note. M/M = male speaking with a male conversation partner; M/F = male speaking with female conversation partner; F/M = female speaking with male conversation partner; F/F = female speaking with female conversation partner.

### Inferential Statistics

A repeated-measures  $2 \times 2$  MANOVA (Pillai's trace) 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,  $F(10, 29) = 0.556$ ,  $p = .835$ ,  $\eta^2 = .161$ , or communication partner,  $F(10, 29) = 1.367$ ,  $p = 0.244$ ,  $\eta^2 = .557$ , were observed. However, univariate tests (Greenhouse-Geisser) revealed two variables with significantly different means in the communication partner conditions: dependent clauses,  $F(1, 38) = 5.882$ ,  $p = .02$ ,  $\eta^2 = .134$ , and interruptions,  $F(1, 38) = 5.231$ ,  $p = .028$ ,  $\eta^2 = .121$ . Speakers used more dependent clauses and interruptions when they were talking to females compared with when they were talking to males. No other dependent variables reached statistical significance (see Table 3). There was not a statistically significant interaction between the speaker gender and communication partner gender effects,  $F(10, 29) = 1.155$ ,  $p = .359$ ,  $\eta^2 = .285$ ; there was no indication that speaker communication accommodation for communication partner occurred more frequently in a particular speaker gender group.

### Discussion

Gendered language was not observed in this study. Although the dependent variables were selected based on previous literature, indicating these variables to be the most likely affected by speaker gender, it may not be surprising that these young adult speakers did not conform to a gendered language pattern. The data are consistent with most of the modern research literature about gendered language. For example, in their

**Table 3.** Univariate Tests of Communication Partner Conditions.

Variables	Communication partner gender, Mean (SD)		F	p	$\eta^2$
	Male	Female			
Pronouns	.030 (.007)	.032 (.009)	0.601	.443	.016
Self-references	.013 (.006)	.012 (.006)	0.041	.841	.001
Negations	.016 (.008)	.016 (.007)	0.147	.703	.004
Intensive adverbs	.009 (.005)	.010 (.005)	2.201	.146	.055
Hedges	.010 (.006)	.009 (.007)	1.541	.222	.039
Tag questions	.000 (.001)	.000 (.001)	0.000	.984	.000
Dependent clauses	.013 (.007)	.017 (.001)	5.882*	.02	.134
Fillers	.062 (.018)	.056 (.025)	2.662	.111	.065
Interruptions	.003 (.003)	.004 (.005)	5.231*	.028	.121
Justifiers	.004 (.003)	.005 (.004)	3.436	.072	.083

\*Significant at the  $p < .05$  level.

recent meta-analysis, Leaper and Ayres (2007) found that male and female language, especially of college-aged students, is generally similar and that certain environmental and conversational moderators explain instances of gender differences reported in the literature.

This study supports the hypothesis that a communication partner's gender is a relevant factor in the conversational context that can influence a speaker's language. There was no indication that one gender converges toward their partner more than the other. Both male and female speakers used significantly more dependent clauses and interruptions when speaking to a female than when speaking to a male. The absence of gendered language makes the observed effect of a female communication partner even more interesting. One aspect of CAT would posit that it is the speaker's perception of the partner's behavior that leads to attributions and evaluations of the partner before the speaker accommodates to the partner by using particular language (Giles & Gasiorek, 2013). Yet in this case, the partner is not exhibiting a particular gendered language pattern; therefore, the speakers must have an internal female-language schema to converge to it when talking to a female. This is analogous to a speaker using a Southern dialect only when speaking to a known Southerner, even when that Southerner is not displaying a Southern dialect.<sup>1</sup> Therefore, the findings provide rationale for weighting socio-historical context, another aspect of CAT and key in the general process model discussed previously. Societal and cultural norms regarding gendered language may have greater influence on a speaker's language than the immediate situational context of the communication exchange.

Women, or at least perceived female language norms, appear to be particularly influential to the language in conversation because only when the partner is female do speakers use the stereotypical language of their communication partner. It is important

to note that this effect is small and did not occur for every variable. Still, the changes occurred based on the communication partner's gender, not on whether the partner was the same or opposite gender of the speaker. This supports the Mulac et al. (2013) general process model, in that gender of the recipient (i.e., context) affects communication in spoken, live, engaging interpersonal contexts.

Consistent with previous studies, these data indicate that females are the more interrupted gender. McMillan et al. (1977) found that men interrupted more frequently than did women, but within each gender group, speakers interrupted females the more than they interrupted males. As in this study, Hirschman (1994) found that female SG dyads have higher frequencies of interruptions than other dyad combinations. The interruption results may support Lakoff's female subordination theory; though this theory would not have predicted females interrupting females, and also we would have expected to see greater differences in other female-typed language, such as tag questions or hedges. Perhaps speakers treat female partners as subordinate in conversation by interrupting, but female speakers no longer position themselves as subordinate by using uncertain language.

Based on previous literature, one might predict that women would use more dependent clauses than men, and this did occur within communication partner conditions to a nonsignificant extent. However, this is the first study to find striking evidence that the female communication partner elicits more dependent clauses. Every single participant used more dependent clauses per word when they were speaking to a female (as opposed to a male). Statistics did not indicate that the speaker's gender influenced this variable, and visual examination of the raw data did not result in even trend-level evidence that a particular gender group does this more frequently than the other (i.e., approximately equal number of male participants above [ $n = 11$ ] and below [ $n = 9$ ] the total group [ $N = 40$ ] median score of 0.4567). This significant difference suggests that syntactic measures are worthy of inclusion in future studies of gendered language at the conversational level. Measures of quality and efficiency of language (e.g., clause structure and cohesion) are relatively unexplored in the gendered language literature, yet such measures may correspond to language styles consistent with the gender-as-culture hypothesis. In a series of studies by Mulac et al. (2001), dependent clauses were confirmed to be associated with female culture as they were rated as relatively elaborate, as opposed to succinct. The current study suggests that speakers may elaborate when speaking to women. According to CAT, this would be an example of speakers converging toward their female communication partner, possibly to facilitate the interaction.

Although only 2 of 10 variables reached statistical significance pertaining to communication partner gender, there may be trends suggesting practical significance in the other variables measured. Although not statistically significant, speakers also increased the use of intensive adverbs and justifiers and decreased the use of fillers when in the female communication partner condition compared with the male communication partner condition. Like the significant variables, these modifications are consistent with a convergence to stereotypical gendered language and are based on communication partner, occurring regardless of speaker's gender.

### *Limitations*

According to self-categorization theory (as described by Palomares, 2004), an individual's social identity is fluid and responds to social context. A particular category of one's identity (e.g., gender) may or may not be most salient in a certain context. Palomares (2004) demonstrated that gendered language occurs when a speaker has a strong predisposition to adhere to gender norms (gender schemata) and when the gender category of one's social identity is most salient. In his 2004 study, when gender salience was low or when student status was the salient social identity category, the male and female participants did not have language differences; yet those same students demonstrated hypothesized differences when gender salience was high. Palomares' findings are consistent with previous mixed findings of gendered language in the literature. It is possible that heightened language differences reported in MG dyads compared with same-gender dyads are due to the higher gender saliency of a MG situation (Palomares, 2009). Perhaps gendered language was not found in this study because of overall low gender salience or because of participants without schemata/stereotypes.

Using live communication partners in conversations about current topics provided ecological validity lacking in studies using e-mail or written communication. However, this was at a cost. Communication partner's language was not tightly controlled. Ye and Palomares (2013) demonstrated an effect of communication partner's language on speaker's language, but that effect was specific to the same variable. In other words, the communication partner's use of emotional words (0 emotional words compared with 25 emotional words in an e-mail) influenced the participants' use of emotional words, but not tentative language, in a response e-mail. Unlike an e-mail exchange, the live communication context prohibited high consistency in the communication partner's language across participants. However, post hoc review confirmed adequate levels of topic maintenance and consistency.

### *Future Directions*

Future studies searching for evidence of communication accommodation in spoken contexts should measure the speaker's gender schema as well as productions. Additional live conversational contexts, perhaps with less gender-neutral topics, should be used to determine the scope of application for the general process model. Finally, advances in virtual reality environments and avatars may be useful in standardizing and manipulating communication partners and their language to carefully investigate whether speakers accommodate to people based on the partner's gender salience, gender-language consistency, or even physical appearance of gender (e.g., Palomares, 2010).

### **Conclusions**

Female gender of the communication partner influenced two aspects of a speaker's language (i.e., dependent clauses and interruptions), and this occurred regardless of the speaker's gender. In light of the theories developed to explain a gender's role in

language patterns and role of the communication partner, the data indicate that language may be influenced more by the speaker's schema of gender norms than by gender characteristics of the speaker.

## Appendix A

### Variables and Definitions

**Personal pronouns:** Words that represent beings, objects, or things (I, me, he, her, people, persons, someone, him, her, it, etc.). Does not include *you know* (the filler). Example: *He thinks it's great* (Hirschman, 1994; Mulac et al., 1988)

**Self-references:** The word "I" when referring to self (speaker). Does not include *I mean* (the filler).

Example: *I think she's pretty* (Hirschman, 1994)

**Negations:** An indication of what something is not; using not, don't, can't, and so on (Mulac et al. 1988). Examples:

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").

**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).

Example: *Molly is **extremely** level-headed* (McMillan et al., 1977; Mulac et al., 1988)

### Hedges:

1. A word or phrase that changes how absolute or certain a statement is (e.g., sort of, somewhat, kind of, probably, about).  
Example: *Addison is **kind of** a bad kisser*. McMillan et al. (1977), Mulac et al. (1988), and 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*, and so on.  
Example: *I wonder if I put my keys in the washing machine.*  
\*\**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.

**Tag questions:** A question that follows an assertion used as a request for support or validation of the preceding statement.

Example: *It's cold out. Isn't it?* (McMillan et al., 1977)

**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).

Example: *Paul wants an employee who is willing to cut corners*

**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).

Example: John **uhh** went over there or **I mean**, I really like tv, **you know** (Hirschman, 1994; Mulac et al., 1988)

**Interruptions:** Breaking into a person's turn in an apparent attempt to take over the conversation, 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).

**Justifiers:** A reason given for a previous statement by the speaker. May begin with words such as because, so, hence, therefore, in which case, in that case.

Example: It's wet **because it's raining** (Mulac et al., 1988)

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

## Appendix B

### Language Variables Associated With Gender Differences.

Variable	Gender link	Context	Citation
Personal pronouns	F	Female communication partner	Hirschman (1994) <sup>a</sup>
	F	Interviews	Gleser et al. (1959)
	F	Impromptu monologues	Mulac and Lundell (1986)
	F	SG/MG dyadic conversations, unfamiliar	Mulac et al. (1988)
Self-references	F	Structured interviews	Poole (1979)
	F	Interviews	Gleser et al. (1959)
	M	SG/MG dyadic conversations, unfamiliar	Hirschman (1994)
	M	In-class speeches	Mulac, Lundell, and Bradac (1986)
	M	Written, SG/MG dyadic conversations, monologues	Mulac et al. (2001)
	F	Structured interviews	Poole (1979)

(continued)

## Appendix B (continued)

Variable	Gender link	Context	Citation
Negations	F	Interviews	Gleser et al. (1959)
	F	Impromptu monologues	Mulac and Lundell (1986)
	F	In-class speeches	Mulac et al. (1986)
Intensive adverbs	F	SG/MG dyadic conversations, unfamiliar	McMillan et al. (1977)
	F	Impromptu monologues	Mulac and Lundell (1986)
	F	In-class speeches	Mulac et al. (1986)
Hedges/qualifiers	F	SG/MG dyadic conversations, unfamiliar	Mulac et al. (1988)
	F	SG dyadic conversations, familiar and unfamiliar	Crosby and Nyquist (1977)
	F	Female communication partner	Martin and Craig (1983)
Tag questions	F	Female communication partner	McMillan et al. (1977) <sup>b</sup>
	F	SG dyadic conversations, familiar and unfamiliar	Crosby and Nyquist (1977)
	F	SG/MG dyads, unfamiliar	McMillan et al. (1977)
Dependent clauses	F	Impromptu monologues	Mulac and Lundell (1986)
	M	Interviews	Dubois and Crouch (1975)
	M	Conversations with trained partner (M or F)	Beck (1978)
Fillers	F	Structured interviews	Poole (1979)
	M	Impromptu monologues	Mulac and Lundell (1986)
	F	In-class speeches	Mulac et al. (1986)
Interruptions	M	SG/MG dyadic conversations, unfamiliar	Mulac et al. (1988)
	M	SG/MG dyadic conversations, unfamiliar	McMillan et al. (1977)
	F	Female communication partner	Bilous and Krauss (1988)
Justifiers	M	Conversations with trained conversation partners	Hannah and Murachver (1999)
	F	Female communication partner	Hirschman (1994)
	M	Impromptu monologues	Mulac and Lundell (1986)
Utterance length	F	SG/MG dyadic conversations, unfamiliar	Mulac et al. (1988)
	F <sup>c</sup>	In-class speeches	Mulac et al. (1986)
	F <sup>c</sup>	Impromptu monologues	Mulac and Lundell (1986)
	M <sup>c</sup>	Structured interviews	Poole (1979)
	F <sup>d</sup>	SG/MG dyadic conversations, unfamiliar	Bilous and Krauss (1988)
	F <sup>d</sup>	SG/MG dyadic conversations, unfamiliar	Hirschman (1994)

Note. SG = single gender, MG = mixed gender.

a. Included *I, you, we, someone, people*, and so on.

b. Included modal verb constructions and imperatives-as-questions.

c. Utterance lengths measured by mean length utterance/sentence.

d. Utterance lengths measured by total number of words.

## Appendix C

### *Scripts Used as Guide for Communication Partners*

#### *Cellular Phone Topic*

##### **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.”

#### *Reality Television Topic*

##### **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.”

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**Note**

1. There is some limitation to this analogy, in that dialect is generally restricted to auditory signal, whereas there could be visual and auditory cues to activate gender schema. It is possible that gender schema was activated in this study by the speaker’s appearance regardless of the language used. This is included as a direction for future research.

**References**

- Beck, K. (1978). Sex differentiated speech codes. *International Journal of Women’s Studies*, 1, 566-572.
- Bilous, F. R., & Krauss, R. M. (1988). Dominance and accommodation in the conversational behaviours of same- and mixed-gender dyads. *Language & Communication*, 8, 183-194.
- Cargile, A. C., & Bradac, J. J. (2001). Attitudes toward language: A review of speaker-evaluation research and a general process model. In W. B. Gudykunst (Ed.), *Communication yearbook 25* (pp. 347-382). Mahwah, NJ: Lawrence Erlbaum.

- Crosby, F., & Nyquist, L. (1977). The female register: An empirical study of Lakoff's hypothesis. *Language in Society*, 6, 313-322.
- Dubois, B. L., & Crouch, I. (1975). The question of tag questions in women's speech: They don't really use more of them, do they? *Language in Society*, 4, 289-294.
- Gasiorek, J., & Giles, H. (2012). Effects of inferred motive on evaluations on nonaccommodative communication. *Human Communication Research*, 38, 309-331.
- Giles, H. (2008). Accommodating translational research. *Journal of Applied Communication Research*, 36, 121-127.
- Giles, H., & Gasiorek, J. (2013). Parameters of non-accommodation: Refining and elaborating communication accommodation theory. In J. Forgas, J. László, & V. Orsolya Vincze (Eds.), *Social cognition and communication* (pp. 155-172). New York, NY: Psychology Press.
- Giles, H., & Marlow, M. (2011). Theorizing language attitudes: Existing frameworks, an integrative model, and new directions. In C. Salmon (Ed.), *Communication yearbook 35* (pp. 161-198). New York, NY: Routledge.
- Giles, H., & Ogay, T. (2006). Communication accommodation theory. In B. B. Whaley & W. Samter (Eds.), *Explaining communication: Contemporary theories and exemplars* (pp. 293-310). Mahwah, NJ: Lawrence Erlbaum.
- Gleser, G. C., Gottschalk, L. A., & John, W. (1959). The relationship of sex and intelligence to choice of words: A normative study of verbal behavior. *Journal of Clinical Psychology*, 15, 182-191.
- Hannah, A., & Murachver, T. (1999). Gender and conversational style as predictors of conversational behavior. *Journal of Language and Social Psychology*, 18, 153-174.
- Helweg-Larsen, M., Cunningham, S. J., Carrico, A., & Pergram, A. M. (2004). To nod or not to nod: An observational study of nonverbal communication and status in female and male college students. *Psychology of Women Quarterly*, 28, 358-361.
- Hirschman, L. (1994). Female-male differences in conversational interaction. *Language in Society*, 23, 427-442.
- Lakoff, R. (1975). *Language and woman's place*. New York, NY: Oxford University Press.
- Leaper, C., & Ayres, M. M. (2007). A meta-analytic review of gender variations in adults' language use: Talkativeness, affiliative speech, and assertive speech. *Personality and Social Psychology Review*, 11, 328-362.
- MacWhinney, B. (2000). *The CHILDES project: Tools for analyzing talk* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Martin, J. N., & Craig, R. T. (1983). Selected linguistic sex differences during initial social interactions of same-sex and mixed-sex student dyads. *Western Journal of Speech Communication*, 47, 16-28.
- McMillan, J. R., Clifton, A. K., McGrath, D., & Gale, W. S. (1977). Women's language: Uncertainty or interpersonal sensitivity and emotionality? *Sex Roles*, 3, 545-559.
- Mulac, A. (2006). The gender-linked language effect: Do language differences really make a difference? In K. Dindia & D. Canary (Eds.), *Sex differences and similarities in communication* (2nd ed., pp. 219-239). Mahwah, NJ: Lawrence Erlbaum.
- Mulac, A., Bradac, J. J., & Gibbons, P. (2001). Empirical support for the gender-as-culture hypothesis: An intercultural analysis of male/female language differences. *Human Communication Research*, 27, 121-152.
- Mulac, A., Giles, H., Bradac, J. J., & Palomares, N. (2013). The gender-linked language effect: An empirical test of a gender process model. *Language Sciences*, 38, 22-31.

- Mulac, A., & Lundell, T. L. (1982). An empirical test of the gender-linked language effect in a public speaking setting. *Language and Speech, 25*, 243-256.
- Mulac, A., & Lundell, T. L. (1986). Linguistic contributors to the gender-linked language effect. *Journal of Language and Social Psychology, 5*, 81-101.
- Mulac, A., Lundell, T. L., & Bradac, J. J. (1986). Male/female language differences and attributional consequences in a public speaking situation: Toward an explanation of the gender-linked language effect. *Communication Monographs, 53*, 115-129.
- Mulac, A., Wiemann, J. M., Widenmann, S. J., & Gibson, T. W. (1988). Male/female language differences and effects in same-sex and mixed-sex dyads: The gender-linked language effect. *Communication Monographs, 55*, 315-335.
- Palomares, N. A. (2004). Gender schematicity, gender identity salience, and gender-linked language use. *Human Communication Research, 30*, 556-588.
- Palomares, N. A. (2008). Explaining gender-based language use: Effects of gender identity salience on references to emotion and tentative language in intra- and intergroup contexts. *Human Communication Research, 34*, 263-286.
- Palomares, N. A. (2009). Women are sort of more tentative than men, aren't they? How men and women use tentative language differently, similarly, and counterstereotypically as a function of gender salience. *Communication Research, 36*, 538-560.
- Palomares, N. A. (2010). Virtual gender identity: The linguistic assimilation to gendered avatars in computer-mediated communication. *Journal of Language and Social Psychology, 29*, 5-23.
- Poole, M. E. (1979). Social class, sex, and linguistic coding. *Language and Speech, 22*(1), 49-67.
- Quina, K., Wingard, J. A., & Bates, H. G. (1987). Language style and gender stereotypes in person perception. *Psychology of Women Quarterly, 11*, 111-122.
- Tannen, D. (1990). *You just don't understand: Women and men in conversation*. New York, NY: Morrow.
- Ye, Z., & Palomares, N. A. (2013). Effects of conversation partners' gender-language consistency on references to emotion, tentative language, and gender salience. *Journal of Language and Social Psychology, 32*, 433-451.

## Author Biographies

**Adrienne B. Hancock** (PhD, CCC-SLP) is an assistant professor at The George Washington University. Her research examines speech, language, and psychosocial variables of transgender communication as they relate to gender perception. She has published several peer-reviewed articles and book chapters and has presented at state, national, and international meetings.

**Benjamin A. Rubin** is a clinical fellow speech-language pathologist at Bayhealth Medical Center in Dover, DE, where he serves patients with a variety of speech, language, and swallowing disorders and also specializes in voice disorders. He has a BA in linguistics from University of California, Santa Cruz, a BS in speech and hearing sciences from the University of Washington, and an MA in speech-language pathology from The George Washington University.