

The Effect of Interruptions and Dyad Gender Combination on Perceptions of Interpersonal Dominance

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The argument put forth in this study is that interruptions and dyad gender combinations will have an effect on perceptions of interpersonal dominance. Participants were asked to listen to a series of recorded dialogues with six intentionally embedded intrusive interruptions. After each pair of interruptions, participants completed a survey measuring their perception of the interrupter's interpersonal dominance. Analyses showed that the accrual of interruptions results in a curvilinear increase in perceptions of dominance. Female interrupters in a female/female dyad were consistently perceived as the most dominant and male interrupters in a male/female dyad were consistently perceived as the least dominant.

Keywords: Communication; Dominance; Interpersonal; Interruptions

Interruptions have long been associated with interpersonal dominance (see Burgoon, Johnson, & Koch, 1998; Carli, 2001; Markel, Long, & Saine, 1976; Tannen, 1990) and many researchers have explored how men and women use interruptions differently (see Anderson & Leaper, 1998; Bresnahan & Cai, 1996; Mulac, Wiemann, Widenmann, & Gibson, 1988; Robinson & Reis, 1989). However, research exploring the *perceptions* of dominance based on both dyad gender combination and on the accumulation of interruptions is much less prevalent. These seldom researched

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aspects of interpersonal dominance potentially represent variables that influence our everyday interactions, yet they are poorly understood.

Literature Review

The essential argument put forth here is that gender and interruptions will have an effect on perceptions of dominance. And, overall increases in the quantity of interruptions will result in overall increases in the intensity of perceived dominance.

Dominance

Definitions of dominance vary but they tend to have a common theme (see Burgoon & Dunbar, 2000; Burgoon et al., 1998; Markel et al., 1976). Collectively, these definitions suggest that dominance occurs when a communicative act such as an interruption is initiated by one individual and accepted by another with the outcome being that the other's verbal communication is reduced. This understanding asserts that dominance is the product of at least a dyadic interaction (Dunbar & Burgoon, 2005) and both parties work together to create the coexisting concepts of dominance and submission.

Interruptions can be seen as communicative acts that enact dominance for two reasons (Karakowsky, McBey, & Miller, 2004). First, an interruption acts to reduce another's role as communicator by reducing another speaker's turn. This intrusion, and hence the move to dominate, can be either conscious or unconscious (Kennedy & Camden, 1983). A second reason is that interruptions can also be used to control the topic of the conversation (Karakowsky et al., 2004). When the interrupter enacts a topic change this also signals an additional type of dominance over interaction partners. In this sense, interruptions can be viewed as one important indicator of enacted dominance.

In dominance research, participants are seldom asked for their views on the phenomenon and, as Dunbar and Burgoon (2005) suggest, "dominance is partly in the eye of the beholder" (p. 213). Hence, perception of dominance is an area yet to be fully explored. The general perception of interpersonal dominance is that it is a negative, undesirable, and/or dysfunctional behavior, especially when enacted through certain communicative actions such as interruptions (Kennedy & Camden, 1983). This negative response to dominance may be exacerbated by the degree of congruence between the individual actor's actions and the audience expectations.

Another potential influence on perceptions of dominance is gender. Some studies (Burgoon, Coker, & Coker, 1986; Burgoon, Dillard, & Doran, 1983) suggest that men and women can produce identical behaviors and, as a result of stable characteristics like gender, may be evaluated by others in entirely different ways. The impact of norms governing gender "appropriate" behaviors may also be a factor. Communicators are sometimes rewarded socially when *typically* masculine and feminine behaviors are present (Gardner, Peluchette, & Clinebell, 1994) and sometimes penalized with they are absent (Burgoon et al., 1983). This preference for gender roles is evident

in spite of the socialized nature of these interruptive behaviors (Gardner, Peluchette, & Clinebell, 1994).

Interruptions

Early research on interruptions is characterized by confusion linked to attempts to treat all interruptions similarly (Baker, 1991). Later research clarified that not all interruptions are alike and not all interruptions are used to dominate another. For instance, in their review of extant literature Anderson and Leaper (1998) identified two distinct types of interruption—intrusive interruptions and cooperative overlaps. An *intrusive interruption* is one that intrudes on another's talking turn for the purpose of dominating the other. The second type of interruption is called a *cooperative overlap*. Overlaps are not used to control or dominate but instead to encourage or support. Of the two types of interruption, the intrusive interruption is a much clearer indicator of attempts to achieve dominance than the cooperative overlap because it is used as an attempt to control who is talking and what is being talked about (Karakowsky et al., 2004). The intrusive interruption is the focus of this study.

Orcutt and Harvey (1985) discussed the connection between interruptions, conversational rule breaking, and male dominance. They also based their research on the premise that interruptions “can be interpreted in most contexts as expressions of power or interpersonal dominance” (p. 16). Their research explored whether or not interruptions were more likely to occur in cross-sex interactions or same-sex interactions. They also explored whether interruptions were equally distributed among participants. They hypothesized that there would be an inverse relationship between the incidence of conversational rule breaking (i.e., interruptions) and the perception of conversational rule breaking. Because males are typically viewed as the dominant sex and are often given higher status, male interruptions of females would be less noticeable than female interruptions of males. And, because status levels (based only on gender) would be equal in same-sex dyads, interruptions would be seen as “unwarranted violations of relational norms of equality and ‘fair exchange’” (p. 24). Thus, an interruption in a same-sex dyad would be more noticeable to observers (and participants) than an interruption in a cross-sex dyad. Though their results did not completely support these individual hypotheses, the results were convincing enough for them to state that “the very parties and relations that have been found to adhere most closely to the rules of turn-taking are disproportionately singled out as exemplars of norm violation by respondents” (p. 27). This study is crucial to understanding the relationship between gender, interruptions, and perceptions of dominance.

Hypotheses

If only the gender of the interrupter is varied, a female interrupter will be more clearly seen as a violator of conversational norms. Socially, females are not expected

to make a move for dominance. The stereotype exists that women are expected to exhibit little or no aggressiveness (Burgoon, Dillard, & Doran, 1983). Additionally, some research on stereotypes has suggested that there is a relationship between competence, warmth, power, and status such that high-power groups and high-status groups are perceived as more competent than low-power groups and low-status groups (see Wade & Brewer, 2006). Hence, the notion that women typically have less power than men and often hold positions lower in status would be accompanied by the assumption that women are also less competent than men. The result of these stereotypes is that a female who confidently and aggressively interrupts a male will be more likely to stand out than a male who confidently and aggressively interrupts a female. And, that same female interrupter in a cross-sex dyad will be seen as more dominant than a male interrupter in a cross-sex dyad. Hence, the following hypothesis:

- H1: The female interrupter in the cross-sex dyad will be perceived as more dominant than the male interrupter in the cross-sex dyad.

Orcutt and Harvey (1985) address the difference in perceptions of interruptions between same-sex dyads. As indicated previously, when interruptions occur in same-sex dyads, they may stand out more clearly “as unwarranted violations of relational norms of equality and ‘fair exchange’” (p. 24) than they would in cross-sex dyads. Thus, an attempt to dominate in a same-sex dyad would be seen as more “unconventional or inappropriate” (p. 24). Additionally, Carli (1990) suggests that both men and women in mixed-sex dyads tend to act more like the opposite-sex partner. The homogenization of cross-sex dyads would tend to favor differences between same-sex dyads rather than differences between cross-sex dyads. The expectation, then, would be for a certain blurring of behavioral stereotypes in cross-sex dyads. Same-sex dyads, however, would be more likely to retain the gender-specific behavioral stereotype, thus amplifying the difference. This suggests that a same-sex interrupter would be more likely to be perceived as dominant than a cross-sex interrupter, even when the gender of the interrupter differs (i.e., a female interrupter in a same-sex dyad versus a male interrupter in a cross-sex dyad). Based on this argument and the consideration that displays of dominance are typically perceived negatively, the following hypothesis is proposed:

- H2: Interruptions occurring in same-sex dyads will typically lead to greater perceptions of dominance than interruptions occurring in cross-sex dyads.

The final question when comparing dyads is which same-sex dyad, if any, will be perceived as more dominant? Guidance is provided by Winn (2004) and others (see Carli, 2001; Gardner et al., 1994). Winn’s notion of a perceptual penalty suggests that women and men will not be perceived equally when exhibiting the same behavior. If interruptions are typically perceived as displays of dominance, then women will be seen as more dominant than men when displaying the same interruptive behavior.

Thus, if two same-sex dyads with an embedded interruption are compared and the only difference between the two dyads is the gender of the communicators, then the female interrupter should be perceived as more dominant. Hence, the following hypothesis is proposed:

H3: A female interrupter in a same-sex dyad will be perceived as more dominant than a male interrupter in a same-sex dyad.

The preceding hypotheses allow for the construction of the following continuum of perceptions of dominance:

Perceived as Least Dominant

↓

Male interrupter in a cross-sex dyad

↓

Female interrupter in a cross-sex dyad

↓

Male interrupter in a same-sex dyad

↓

Female interrupter in a same-sex dyad

↓

Perceived as Most Dominant

One of the objectives of this study is to confirm that interruptions, as they accrue, are indeed associated with increased levels of interpersonal dominance. Based on the premise that interpersonal dominance can be the product of intrusive interruptions (at least in part), it could also be concluded that an increase in interruptions will result in an increase in perceptions of interpersonal dominance. Though there appears to have been little research in this area, some have suggested that at least within groups, the key to establishing dominance is to interrupt *more* (Henley & Freeman, 1995). Based on this simple logic, the following hypothesis has been proposed:

H4: For an interrupter, an increase in the number of interruptions will result in an increase in perceptions of interpersonal dominance.

Methods

Sample

Subjects were recruited through undergraduate communication courses at a large, urban, Midwestern university. The number of participants ($N=378$) was adequate for the analysis used in this study. Participants ranged in age from 17 to 63 with a mean age of 20.8. The participants were 53% White, 33% Black, 9% Asian or Pacific Islander, 4% Hispanic, and 1% Native American.

Design

Participants were asked to listen to one of four possible recorded conversations (see Appendix). Each conversation was dyadic and the conversations differed only in the gender combination of the actors (male/male, male/female, female/male, and female/female). Each recorded conversation was broken into three parts. Within each part were embedded two interruptions (for a total of six interruptions). These interruptions were consistently initiated by the same actor. For instance, in one of the recorded dialogues, all interruptions were initiated by the female character (e.g., Jennifer).¹

After the participants listened to a section of the recorded dialogue, the recording was paused and the participants were asked to fill out a survey assessing perceptions of interpersonal dominance. This procedure was repeated after each section of the conversation, so the participants listened to the three sections of the dialogue and completed the same survey after each section. Though the items were the same each time the survey was completed, they were not in the same order.

Measure for Perceptions of Interpersonal Dominance

The independent variable in this study was the gender combination of the observed dyads. The dependent variable was the participant's perception of interpersonal dominance. The measure used in this study for perceptions of interpersonal dominance was developed from Gough's (1968) original research. Gough based his research on high (and low) scorers on the dominance portion of the California Personality Inventory (CPI). The dominance scale on the CPI identified individuals "who would behave in a dominant, ascendant manner, who in interpersonal situations would take the initiative and exercise leadership, and who would be seen as forceful, self-confident, and capable of influencing others" (p. 59).

Using an Adjective Check List, Gough (1968) asked participants to identify those adjectives that best described high scorers on the CPI's dominance scale. Separate lists of adjectives were compiled for both male and female high scores. The top 10 adjectives for both male and female high-dominance scorers were used in this current study to construct the 18-item measure for perceived interpersonal dominance ("dominant" and "forceful" appeared on both the male and female lists). The completed measure included the following items: ambitious, dominant, forceful, optimistic, planful, resourceful, responsible, self-confident, stable, stern, aggressive, bossy, conceited, confident, demanding, quick, strong, and talkative. Each item on the perceived interpersonal dominance scale was measured using a 7-point Likert-type scale. The measure asked how likely the participant thought each adjective would describe one of the actors in the dialogue (the one that initiated the interruption). A higher cumulative score on the measure indicated a higher degree of perceived interpersonal dominance.

Reliability and validity were emphasized in the current study because the measure of perceived interpersonal dominance had not been utilized in any previous research.

Inter-item reliability was partially established through a split-half procedure. For this study, the split-half test was conducted three times, once for each variation of the measure completed by the participants. The correlations for each of the surveys were .82, .80, and .76. The internal consistency of the perceived dominance scale was also supported through the use of Cronbach's (1951) coefficient *alpha*. The first use of the perceived dominance measure yielded a reliability coefficient of .90. The second and third use of the measure yielded reliability coefficients of .88 and .91, respectively.

Analysis

Analyses conducted for this study included one-factor between-subjects ANOVAs to explore each separate exposure to the stimuli, thus testing H1, H2, and H3. Additional analysis included a repeated measures ANOVA. This allowed for the exploration of the effect of repeated exposure to interruptions on the participants' perceptions of interpersonal dominance, thus testing H4.

Results

One-Factor Between-Subjects ANOVA

The composite scores for the dominance measure ranged from 18 to 126. ANOVA results for survey 1 indicate that the main effect was significant. Observed gender dyad combination, $F(3, 348) = 22.54$, $p < .001$, $\eta^2 = .163$, significantly affected the dependent variable. For survey 2, $F(3, 362) = 7.228$, $p < .001$, $\eta^2 = .057$, and survey 3, $F(3, 362) = 4.73$, $p = .003$, $\eta^2 = .038$, again, the observed gender dyad combination significantly affected the dependent variable.

Post Hoc Tests

The Tukey post hoc analysis was used to further explore the relationship between dyad gender combination and perceptions of dominance. At this stage, the results partially supported H1. Perceptions of dominance for a female interrupter in a cross-sex dyad were significantly higher than perceptions of dominance for a male interrupter in a cross-sex dyad. This was true for the first survey, but not for the second and third surveys.

As with H1, H2 was also only partially supported by the data. H2 suggested that perceptions of dominance in same-sex dyads would be significantly higher than perceptions of dominance in cross-sex dyads. The data was inconsistent in all combinations except when female/female dyads were compared to male/female dyads. For this combination, a female interrupter in a same-sex dyad was perceived as more dominant than a male interrupter in a cross-sex dyad during all three surveys. The only other significant occurrence was that a male interrupter in a same-sex dyad was seen as more dominant than a male interrupter in a cross-sex dyad, but only with the first survey.

Table 1 Cell Means and Standard Deviations for Perceived Interpersonal Dominance

Dyad gender combination	Survey	<i>M</i>	<i>SD</i>
Male/Male	1	79.49	18.43
	2	85.78	15.88
	3	89.46	16.99
Male/Female*	1	69.69	16.51
	2	83.76	14.80
	3	85.62	15.01
Female/Male**	1	82.31	15.87
	2	87.73	12.63
	3	86.72	13.79
Female/Female	1	88.72	12.68
	2	92.76	14.34
	3	92.71	14.52

*Male interrupts.

**Female interrupts.

H3 proposed that a female interrupter in a same-sex dyad would be perceived as more dominant than a male interrupter in a same-sex dyad. Once again, the data partially confirmed this hypothesis. The female interrupter was perceived as more dominant in both the first and second surveys, but not in the third.

The mean scores for all dyad gender combinations are provided in Table 1.

A review of this table and the proposed hypotheses will reveal that the general trend of the data fits with most of the hypotheses (e.g., the mean dominance score of a female interrupter in a cross-sex dyad is always higher than the mean score of a male interrupter in a cross-sex dyad; though the difference is not statistically significant). This is particularly important when looking at all three surveys together, as is done in the following section.

Repeated Measures ANOVA

In addition to the between-subjects ANOVAs conducted separately on each survey, a one-factor within-subjects ANOVA was performed on the three sets of surveys as a

Table 2 Comparison of Overall Means for Perceived Interpersonal Dominance

Survey	<i>M</i>	<i>SD</i>
1	78.87	17.544
2	86.90	14.906
3	88.32	15.386

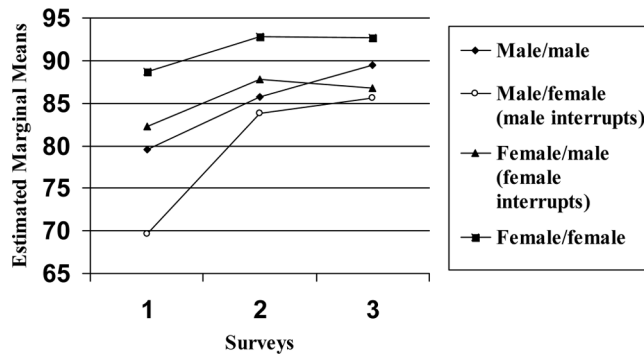


Figure 1 Estimated marginal means of perceived dominance.

whole to explore the effect of consecutive interruptions (H4). The data failed Mauchly's test for sphericity (Kinnear & Gray, 1999) so the more conservative Greenhouse-Geisser test was used. This test revealed that across surveys, exposure to interruptions did affect the level of perceived dominance, $F(1.57, 543.91) = 93.40$; $p < .001$; $\eta^2 = .213$.

The Bonferroni method for unplanned multiple comparisons was used for a pairwise comparison of the individual surveys. In order to reduce the chance of Type I error, a more conservative *alpha* of .016 was used with this test (Kinnear & Gray, 1999). The results indicated that overall, perceptions of dominance increased between survey 1 and survey 2, $t(349) = -10.33$, $p < .001$, and between survey 2 and survey 3, $t(362) = -2.79$, $p = .006$. Further information is provided in Table 2.

These findings are further supported by a visual analysis of the data (see Figure 1).

The visual representations, along with the means included in Table 1 help to support H4, or the general notion that increased numbers of interruptions result in increased perceptions of dominance. Lastly, the visual representation of the perceived dominance data for survey 3 (see Figure 1) and the associated means (see Table 1) represent exactly the model of perceived dominance presented in the literature review. The model suggests that a female interrupter in a same-sex dyad would be perceived as most dominant, followed by a male interrupter in a same-sex dyad, then a female interrupter in a cross-sex dyad, and, finally, a male interrupter in a cross-sex dyad.

Discussion

The two primary arguments put forth in this study were that gender and interruptions would have an effect on perceptions of dominance and an increase in interruptions would result in an increase in perceptions of dominance. Overall, it appears as if intrusive interruptions and gender work together to influence perceptions of interpersonal dominance. In addition, there is the possibility that social expectations for differing behaviors based on gender may work to perpetuate male dominance.

Effect of Accrued Interruptions

Halberstadt and Saitta (1987) have hesitantly suggested that “to imply dominance, nonverbal behaviors must be used in combination or repeatedly over time” (p. 270). They suggest that perceived dominance may not truly become evident until the behaviors typically associated with dominance are experienced repeatedly and/or in sequence. Though this intuitively makes sense, it may be an oversimplification of the process. Instead, the data from this study support the notion that perceptions of dominance are most influenced by the initial exposure to interruptions. As interruptions accrue, perceptions of dominance do indeed increase. However, the relationship between interruptions and perceptions of dominance appears to be a curvilinear relationship with a rapid increase in perceptions of dominance after initial interruptions and a slower increase as interruptions continue to accrue.

Effect of Dyad Gender Composition

There are essentially three factors that help to determine which dyadic gender compositions are more or less likely to be perceived as dominant. First, there is the general assumption that women are perceived as less competent than men, less competitive, and are less likely to make moves for dominance (Burgoon et al., 1983). Second, same-sex dyads are subjected to expectations of equity and fair play that will dictate appropriate and inappropriate behaviors (Orcutt & Harvey, 1985). And, third, women and men can exhibit the same behaviors and yet be evaluated unequally, based on gender alone (Burgoon et al., 1986; M. Burgoon, et al., 1983; Carli, 2001; Winn, 2004). Based on these factors, it is possible to determine which dyadic gender composition will be perceived as more dominant when using intrusive interruptions.

The first hypothesis to explore the possible effect of dyad composition states that a female interrupter in a cross-sex dyad will be perceived as more dominant than a male interrupter in a cross-sex dyad. Here, the difference in perceived dominance was only statistically significant after participants were exposed to the first set of interruptions, but not after the second and third sets of interruptions. Why would this be the case? The challenge in interpreting these results is in understanding what happens after the participants’ initial reactions. Though the participants’ initial response was as expected, differing perceptions based on gender actually appear to become less pronounced as more interruptions accrue.

A speculation by Baker (1991) may provide assistance in interpreting this finding. She suggests that when women do not use affiliative communication strategies with their peers, they will encounter resistance. However, she also indicates that this resistance may fluctuate over time. Indeed, when women use more instrumental communication strategies, “resistance may initially occur, then ebb as people learn to adapt to women’s use of instrumental strategies with colleagues” (p. 60). In the current study, the participants would have initially been more resistant to the idea of a woman using interruptions overtly with a male counterpart. The perceptual

penalty discussed earlier (Winn, 2004) would have been in effect. However, as the process repeated itself, participants may have quickly become accustomed to a woman using interruptions in such a manner and adapted their expectations appropriately. This would help explain why the difference in perceptions of dominance between the second and third sets of interruptions basically remained unchanged in the female/female dyad and actually declined in the female/male dyad.

Like the first hypothesis, the second hypothesis was only partially supported by the data. This hypothesis states that interruptions occurring in same-sex dyads will typically lead to higher perceptions of dominance than interruptions occurring in cross-sex dyads. This was only consistently true for female interrupters in same-sex dyads when compared with male interrupters in cross-sex dyads. After each set of interruptions, the female interrupter in the same-sex dyad was perceived to be significantly more dominant than the male interrupter in the cross-sex dyad. This result receives even more support when the interruptions are viewed cumulatively. A visual inspection of the accumulated interruptions (see Figure 1) reveals that the most divergent dyads regarding perceptions of dominance are consistently the female same-sex dyad and male cross-sex dyad with the male same-sex dyad and the female cross-sex dyad falling in between.

These findings comparing same-sex dyads to cross-sex dyads fits with Burgoon and Hale's (1988) axiom that "the greater the magnitude of deviation from expectancy, the greater the impact on communication outcomes" (p. 65). Based on the earlier discussion, the most socially *expected* communication pattern would be for a male to repeatedly interrupt a female. The most socially *unexpected* communication pattern would be for a female to repeatedly interrupt another female. Thus, based on these socially expected communication patterns, the difference in perceived dominance should be (and is) most exaggerated between the female interrupter in a same-sex dyad and the male interrupter in a cross-sex dyad.

Other schools of thought also help to explain why the female interrupter in a same-sex dyad is perceived as consistently more dominant than a male interrupter in a cross-sex dyad. Some scholars have emphasized that as attention is increasingly drawn to particular behaviors, observers tend to have more extreme evaluations of that behavior (Langer & Imber, 1980). This ties directly to the "mindlessness" and "mindfulness" of the observer. Previous research has found that interruptions occur more in cross-sex dyads than in same-sex dyads (McCarrick, Manderscheid, & Silbergeld, 1981). Thus, participants' previous experience would influence their perception of cross-sex interruptions as more "normal" and same-sex interruptions as more "deviant." This same logic would also be applicable when comparing different same-sex dyads. Previous research has found that attempts to enact dominance are more prevalent in male same-sex dyads than attempts to enact dominance in female same-sex dyads (McCarrick et al., 1981). We typically respond to the environment in a scripted manner with little thought. However, we often become more mindful when presented with something novel or something that deviates significantly from what we consider to be "normal" (Langer & Imber, 1980).

The third hypothesis states that a female interrupter in a same-sex dyad will be perceived as more dominant than a male interrupter in a same-sex dyad. This was partially confirmed because the female interrupter in the same-sex dyad was perceived as more dominant than the male interrupter in a same-sex dyad but only after exposure to the first and second set of interruptions (not after the third set of interruptions). Participants would find it far more unusual to hear women repeatedly interrupt other women than hearing men repeatedly interrupt other men. Women interrupting other women would be a more significant deviation from the cultural script. Their interactions would be violations of the gender belief systems, or the “set of beliefs that people hold about the characteristics and behaviors of men and women” (Carli, 1990, p. 943).

Overall, the gender of the dyad and accrued interruptions affect perceptions of interpersonal dominance, though not quite in the manner that was initially proposed. Results were strongest after the initial exposure to interruptions. After initial exposure, a female interrupter in a cross-sex dyad was perceived to be more dominant than a male interrupter in a cross-sex dyad, a female interrupter in a same-sex dyad was perceived as more dominant than a male interrupter in a cross-sex dyad, and a female interrupter in a same-sex dyad was perceived as more dominant than a male interrupter in a same-sex dyad. As the interruptions accrued, these differences remained though they lost their statistical significance. The only exception was the perception that a female interrupter in a same-sex dyad would be more dominant than a male interrupter in a cross-sex dyad, which remained statistically significant throughout all three sets of interruptions.

Societal Implications

In sum, the results show that intrusive interruptions generally increase perceptions of dominance. The dyadic gender combination affects the degree to which these interruptions shape perceptions, with different gender combinations leading to different overall perceptions of dominance. This is partly the result of conventions of fair play and equity and partly the result of different societal expectations for the different genders. Taking this discussion to an even deeper level, these results may help to reveal power and status imbalances that are perpetuated by these same conventions of language and existing social expectations.

Ng and Bradac (1993) propose an interesting theory that may help to explain the relationship between dominance, language, and social expectations. They have noted that powerful or dominant groups shape the language used by both the dominant group and any associated subordinate groups. If, historically, males have been the dominant force that have shaped the language and the conversational conventions used by both men and women, then it is equally likely that group dominance has been “transferred to, and encoded in, the prevailing language variety” (p. 9). Following Ng and Bradac’s description of the influence of dominant groups in general, it is also likely that these conventions of interaction have been routinized, have been institutionalized as a norm to which other groups are compared and have functioned to

solidify and extend group dominance. These conversational conventions, then, will have played the part of possibly placing women in a secondary position and maintaining their status in that secondary position.

This study may provide evidence to support the theory (Ng & Bradac, 1993) that conversational conventions act to perpetuate male dominance on the societal level. The conversational convention is that of rule-based language and turn-taking. Intrusive interruptions are clear violations of these norms and this is well known. However, hidden within this convention is the understanding that men are not held to the same standards as women when violations occur. Not only is it much less likely that the male interrupter will even be recognized, but a woman will be penalized to a greater degree for any such violation. This study begins to expose the inequity of the interruption. Males can use interruptions to dominate conversational time and conversational topics with lesser repercussions than women doing the same thing. Though it may be common knowledge that an intrusive interruption is a violation of conversational norms, it is hidden knowledge that a woman will not be treated equally for such a violation.

Limitations and Future Research

Probably the most significant limitation of this research resulted from concerns about the influence of extraneous variables such as context, visual cues, the vocal characteristics of the actors, and the content of the dialogue. As a result of these concerns, steps were taken in this study to reduce the effect of some of these variables, such as context and visual cues. The intent was, as much as possible, to isolate the variables of gender and interruptions. Doing this would provide the participants with a "degree of situational ambiguity" (Gardner et al., 1994, p. 120) and allow factors such as gender and communicative acts (i.e., interruptions) to become more salient and to have a greater impact.

Though each of the external influences just described may have been evident, one school of thought suggests that as deviant behaviors and unexpected language become more and more prevalent, the focus of the observer shifts from the content aspect of the interaction to the relational aspect of the interaction (Burgoon et al., 1986; Burgoon & Hale, 1988). This study is based on deviations from expected behaviors. The most pronounced findings in this study correspond with the degree of deviation from the societal expectation. Thus, the nature of this experiment may have actually reduced the unwanted influence of some of these potentially extraneous variables.

Another limitation was that the effect sizes that were evident in this study ranged from moderate to small (see Tabachnick & Fidell, 2007). Tabachnick and Fidell (2007) suggest that research design can influence effect sizes and that less variance is accounted for by experimental designs than is accounted for by nonexperimental designs. As noted previously, though significant efforts were made to control for extraneous variables, it was clear that interruptions were still just one of many possible influential factors. The researcher anticipated that the perception of interpersonal dominance resulting from interruptions would be subtle and difficult

to identify and, based on these expectations, the number of participants utilized was considerably greater than the minimum necessary for such a research design (see Hair, Anderson, Tatham, & Black, 1998).

This study reveals many opportunities for future research. First of all, perceptions are certainly influenced by the surrounding context and exploring the impact of diverse contexts would expand what is known about interpersonal dominance. Also, perceptions of dominance will change based on one's familiarity with another communicator, the roles played by those who are interacting, the relationship between communicators, cultural influences, and other such factors.

Other possible areas for future research include exploration of the effect of interruptions in combination with other nonverbal behaviors, exploration of the effect of more specific dyadic relationships (i.e., married couples or other groupings of family members), and further exploration of the model described in this study. Regarding the model, the results only suggest that there is a curvilinear relationship between accrued interruptions and perceived dominance. Further research is necessary to both confirm this result and to explore the impact of even more interruptions.

Conclusion

This study attempted to explore the influence of accrued interruptions and gender combinations on the perceptions of dominance. Overall, the results partially confirmed most of the hypotheses, leading to the general conclusion that perceived dominance is indeed influenced by gender and repeated interruptions.

Continuing to develop this very limited knowledge base regarding interruptions and perceived dominance is beneficial for at least two reasons. First, contributions to this knowledge base improve the overall awareness of the potential influence of certain conversational practices. We have all interrupted others and we have all been interrupted. How often, though, have we considered the effect of our interruptions or the effect of being interrupted? Do we ever entertain the possibility that women might be considered more dominant (in a negative sense) than men for doing the same thing?

Second, awareness of these issues also allows us to take action and to create change when necessary. Though social stereotypes and conventions of language are powerful influencers, we must not forget that they are human creations and, therefore, alterable. We are able to shape our own behaviors. We can monitor our use of interruptions. We can examine the motives for what we do. And, we can evaluate and change our perceptions regarding the behaviors of others. Dominance, and the perception of dominance, is a powerful social creation, not an immutable law of nature. Research such as this contributes to this awareness and reminds the reader that social change is possible.

Notes

- [1] Prior to data collection, a test group was asked to complete a pilot study. The participants in the pilot study listened to the dialogues and completed the questionnaires. Additionally, they were asked to answer a series of questions designed to determine their awareness of the

dependent variables. Without exception, the participants in the pilot study understood the gender of the actors and were aware of which actor utilized the interruptions.

- [2] This is the dialogue for the female/male dyad. The dialogues for the male/male dyad, the female/female dyad, and male/female dyad were the same except that the names were changed to reflect the gender.

Appendix

Dialogue – Part 1²

- Tom: Is this day ever going to end? It feels like I've been at work for 10 hours and it's...
- Jennifer (int.): Yeah, I know what you mean. I was looking at my clock this morning to see what time it was, and it was only 8:15. I mean, I'd only been here 15 minutes and I was already looking at the clock.
- Tom: I know, I know. And it gets worse for me. You get to go home at the end of the day, eat dinner, watch the TV, do whatever you do. Not me. I have to go to...
- Jennifer (int.): Yeah, where do you keep running off to in such a hurry? I was trying to find you yesterday to sign that birthday card and you were already gone.
- Tom: Yeah, I've been taking classes down at the university... ah... Monday and Tuesday nights.
- Jennifer: Night classes?
- Tom: Yeah. It's tough.

Dialogue – Part 2

- Tom: You know what the worst part is? It's the money. It costs so much to take a class.
- Jennifer: Yeah, I've heard about that. What's it cost nowadays? Like \$2,000 a class?
- Tom: No, it's not that bad. It's actually about \$300 a credit hour. So... it's about...
- Jennifer (int.): That's not as bad as I thought. But it's still pretty expensive.
- Tom: Uh huh... Yeah, it's not like I have that kind of money just laying around. When the tuition bill comes, I'm...
- Jennifer (int.): You know the company reimburses you for tuition, don't you? Yeah, I think they reimburse 100% if you get an A, 90% if you get a B, and 80% if you get a C. Or something like that. I don't know... but I'm pretty sure they reimburse you for classes.
- Tom: Really... well... I wish I'd known that, like, 3 semesters ago.
- Jennifer: Ouch... that hurts.

Dialogue – Part 3

- Jennifer: So how are your classes going? Are you passing?
- Tom: Oh yeah. I've done fine so far. I'm not sure about this semester,

- though. That chemistry class, it's tough. It's not the chemistry that gets me, it's the tests. They're impossible.
- Jennifer: Really.
- Tom: Yeah, it's like, they ought to be open book or take home or something. There's just . . .
- Jennifer (int.): Yeah, one of the classes I took was like that. I was thinking, "Jeez, did I register for a graduate class or what?"
- Tom: Right! And the questions. I'm like, "Could you be any less . . ."
- Jennifer (int.): No! You know what it is? It's how long you have to take the test. If I had all day, I'm sure I could ace any test. But when they only give you an hour, or whatever, you just can't do it.
- Tom: Yeah, that's a problem sometimes too. I've taken tests like that.

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