

FEMALE AND MALE MANAGERS' AND PROFESSIONALS' CRITICISM GIVING Differences in Language Use and Effects

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Study 1 investigated differences in the language used by 86 female and male middle managers and career professionals during role plays of criticism that they had recently voiced to a colleague. Discriminant analysis revealed significant differences in language use, permitting 72% accurate gender reclassification. The language features more indicative of men were number of words, negations, questions, judgmental adjectives, references to emotion, and oppositions. Those more predictive of women were intensive adverbs, longer mean length sentences, hedges, directives, dependent clauses, and sentence initial adverbials. However, nearly one half of these gender indicators had been found in previous research to be predictive of the opposite gender. In Study 2, effects of these language differences on third-party observers' judgments were assessed. Contrary to earlier research in nonorganizational settings, no differences were found on Socio-Intellectual Status, Aesthetic Quality, or Dynamism. Results indicated a gender-differentiating, but counterstereotypical, language use of female and male managers and career professionals in criticism giving.

Systems approaches to organizational communication underscore that when there is a discrepancy between system goals and behaviors within the system, feedback can function to bring performance into line with goals (Miller, 1995). Cusella (1987) has identified three sources of feedback in organizational contexts: impersonal, dyadic, and group. Most organizational feedback is dyadic, often in the supervisor-subordinate relationship and in contexts such as formal performance appraisals and informal workplace encounters (Judge & Ferris, 1993). The latter episodes, involving constructive negative feedback, have received little attention from researchers. More generally, few

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studies have analyzed verbal expressions of criticism between coworkers in the workplace—least of all when those peers are managers and career professionals.

In this article, we examine features of language use in managers' and professionals' criticism of coworkers. We first review pertinent literature on criticism giving. Noting the existence of gender¹ differences in criticism styles, but the absence of studies of lateral criticism giving at the managerial and career professional level, we then review studies from nonorganizational contexts documenting the existence of the Gender-Linked Language Effect. Finally, we conjoin these two bodies of research through reference to a third area of studies on gender and leadership style in organizational and nonorganizational settings. On the basis of this review, we pose four research questions related to female and male managers' and professionals' language use in criticisms of coworkers. Data from managers' and professionals' role-played recall of episodes, in which they had recently expressed criticism to a coworker about that peer's performance, are used to answer the research questions posed. Implications for the Gender-Linked Language Effect, and for traditional research on criticism giving, are treated in the Discussion section.

CRITICISM GIVING

Criticism has been conceptualized as negative evaluation of some aspect of an individual that is communicated by others (Deutsch, 1961; Diesel, 1996). Expressed criticism has been found to vary depending on the relationship between the criticizer and the recipient (Graziano, Brothen, & Berscheid, 1980; Tracy & Eisenberg, 1990/1991), the context (Deutsch, 1961), the nature of the problem (Nomura & Barnlund, 1983), or topic of the criticism (Diesel, 1996), and the gender of the criticism giver (Tracy & McLaurin, 1991).

Relational differences in status between the criticizer and the recipient may result in differences in criticism giving. Although men are generally more direct with their criticism than women, women in superordinate positions are more direct than when in subordinate roles in relationships with status differences (e.g., Tracy & Eisenberg, 1990/1991). Fairhurst, Green, and Snavely (1984) found managers' criticisms to reflect greatest consideration (*viz.*, expressions reflecting positive face support) for the feelings of better employees. Also, the history and the future of the relationship with the criticized partner affect the mode of criticism. Tracy and McLaurin (1991) argue that criticizers will modify their negative evaluation depending on how it has been received in the past. In a previously tainted relationship, the recipient's concern for the supervisor's face, and for their own, exceeds

similar concerns in a relationship with no previous problems. As for the future of the relationship, the recipient's reactions again appear to vary depending on whether future interaction is anticipated. If the recipient expects future interaction with the criticizer, he or she will pay more attention to (i.e., spend more time engaged with and monitor more closely) the negative evaluation (Graziano et al., 1980). Most of these studies were not interactive (i.e., the recipient did not have the opportunity to react to the criticizer), although several investigations used stimulated recall of actual criticism-giving sessions.

A second factor found to affect the nature of criticism is the *context* in which the criticism occurs. Indeed, context has been related to the positiveness and/or negativeness of criticisms given; to the directness, clarity, and face sensitivity in the criticisms; and to raters' and recipients' ratings of the effectiveness of the criticisms. Much research has focused on work situations in the office between a supervisor and a subordinate (Deutsch, 1961; Fairhurst et al., 1984; Nomura & Barnlund, 1983; Tracy & Eisenberg, 1990/1991; Tracy & McLaurin, 1991). Interestingly, investigations have not examined lateral criticisms between *work colleagues*, the focus of the present study. Nomura and Barnlund (1983) studied criticisms involving family and friends, and Deutsch (1961) investigated military, work, school, and home situations. Recipients rated criticisms least favorably in military settings, more favorably at school and work, and most favorably at home.

Third, Nomura and Barnlund (1983) also reported that the *nature of the problem* can lead to various ways of criticizing. When facing personal attacks, participants responded with direct and strong criticism. When feeling disappointment and disagreement, they responded with more indirect and passive forms of criticism.

Finally, previous studies underscore the existence of *gender* differences in how criticism is communicated. Women appear to be more attentive to the criticized other's feelings (Andrews, 1987; Baxter, 1984), and they appear to be more concerned with seeking approval for themselves from the criticized other (Tracy & McLaurin, 1991). Although women pay more attention to their own and the criticized other's face goals in communicating criticism, men place more importance on task goals (Tracy & Eisenberg, 1990/1991).

In view of the existence of gender differences in molar criticism style, we examine, in the next sections, studies demonstrating the Gender-Linked Language Effect, as well as the results of Eagly and Johnson's (1990) meta-analysis of gender and leadership style studies. Collectively, research in these areas leads to research questions concerning potential language differences in female and male managers' and professionals' expressions of criticism to peers in their organization.

THE GENDER-LINKED LANGUAGE EFFECT

In a substantial number of empirical investigations outside the context of organizations, the language used by men and women has been shown to differ in meaningful ways. Mulac, Bradac, and Gibbons (in press) summarized more than 30 studies, finding 16 language features that have differentiated gender in a consistent manner. For example, 5 investigations have shown that men tend to use more *references to quantity* (“an 81% loss in vision”) than women, and 3 studies have revealed that men employ more *judgmental adjectives* (“Working can be a drag”). On the other hand, 6 studies have demonstrated that women use more *intensive adverbs* (“This is really hard”) and 5 that women use more *references to emotions* (“If he loved what he was doing . . .”). Although such language differences are often found, they should not be thought of as “markers” of gender (Giles, Scherer, & Taylor, 1979) whose presence unerringly points to the gender of the speaker. Instead, they function as gender-linked “tendencies” (Smith, 1985) to favor certain linguistic features over others.

Although there is widespread agreement among researchers that gender-linked language differences occur in a wide range of communication contexts (Aries, 1996; Henley & Kramarae, 1991; Pearson, West, & Turner, 1993), a challenge to this view has recently appeared. Canary and Hause (1993) have argued that meaningful differences in the communication strategies of men and women have not been found with any degree of consistency. They conclude, “We believe there are sex differences in communication, but they are eluding us” (p. 141). Unfortunately, Canary and Hause cite only 3 of the more than 30 empirical studies summarized by Mulac et al. (1998) that have found gender differences in language use in a wide variety of contexts.

The importance of these gender-linked tendencies can be seen in the effects of such language differences on observers’ judgments of communicators. In a series of eight investigations, Mulac and his colleagues have demonstrated that men’s and women’s language leads them to be judged differently on psychological dimensions that are of consequence (cf. Mulac & Bradac, 1995; Mulac & Lundell, 1980, 1982, 1986, 1994). The almost universal finding is that readers of brief transcripts of women’s language rate them higher on *Socio-Intellectual Status* (i.e., higher social status and more literate) and higher on *Aesthetic Quality* (more pleasant and beautiful). Men are rated higher on *Dynamism* (stronger and more aggressive). This pattern of judgments has been shown, by multiple regression analyses, to be linked to gender-differentiating language and has been titled the *Gender-Linked Language Effect* (see Mulac, 1998, for a complete summary).

In these studies, the researchers have employed transcripts of male and female communication recorded in a variety of contexts: public speeches, oral descriptions of landscape photographs, written essays

on morality, written descriptions of photographs, and problem-solving dyadic interactions between strangers. Although many of the studies have involved university students as speakers, writers, or dyad partners, a substantial number have used communicators of other ages: fourth- and fifth-grade students, university teaching assistants and lecturers older than 30, and people in their 50s and 60s. The pattern of results has been essentially identical across all communicator age-groups, although one study showed the effect to be greater for older speakers (Mulac & Lundell, 1980).

In contexts where two individuals are interacting, it is reasonable to expect that the speakers might influence each other's style of communication. Under the rubric of the Communication Accommodation Theory (Giles, Mulac, Bradac, & Johnson, 1987), a large body of research has been conducted that supports the influence that conversation partners have on speakers. In its simplest formulation, the theory holds that in general, "people will attempt to converge linguistically toward the speech patterns believed to be characteristic of their recipients" (Street & Giles, 1982, p. 213). Examples of support for accommodation have come from studies of linguistic behavior during interaction (Mulac, Wiemann, Widenmann, & Gibson, 1988), as well as nonverbal behavior in that setting (Mulac, Studley, Wiemann, & Bradac, 1987).

In all of their investigations, Mulac and associates have controlled for the possibility that gender stereotypes might affect ratings by ensuring that observers were unable to identify the sex of the speakers or writers. They reasoned that if observers could not identify the sex of the communicators, they could not be influenced by gender stereotypes when they rated those communicators. However, in another investigation, Mulac, Incontro, and James (1985) directly compared the effects of male and female language differences to those of gender stereotypes. Results showed that observers made remarkably similar judgments about men and women, based on either the speakers' language use or the observers' own gender stereotypical notions about men and women (86% judgment overlap). Furthermore, the findings indicated that language and stereotype effects are independent of each other, in that they can be brought about separately, added together to increase male-female differences, or pitted against each other to cancel out such differences. One possible interpretation is that the way in which men and women speak helps perpetuate gender stereotypes.

These findings of evaluative consequences of male/female language differences have been found equally for male and female raters across the eight investigations (Mulac, 1998). In addition, three of these studies found that older individuals (median age of more than 40 years) provided speaker ratings that were essentially identical to those of university students (median age = 19). The consistency of these findings serves to substantiate the broad generalizability of the Gender-

Linked Language Effect. However, none of the studies summarized above were conducted in an organizational setting, none used corporate managers and career professionals as speakers, and none examined criticism between peers. Hence, although the criticism-giving research reviewed at the outset of this article and the studies reviewed above demonstrating the Gender-Linked Language Effect have the potential for being mutually informative, they have proceeded relatively independently of each other. The present investigation conjoins these two lines of inquiry and brings to bear a third body of research on gender and leadership style in organizations.

GENDER AND LEADERSHIP STYLE

There is reason to believe that in an organizational setting, women and men who occupy similar managerial and professional positions do not exhibit gender-stereotypical styles of leadership. Social scientific evidence supporting this position has been reported by a number of researchers, including Bartol and Martin (1986), Bass (1981), Kanter (1977), and Nieva and Gutek (1981). Epstein (1981) observed that women who were lawyers demonstrated a less stereotypical style of communication than women who were not, but did not speculate as to whether this was the result of self-selection or the requirements of the profession. The nature of gender stereotypes is well established (Ashmore & Tumia, 1980; Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Del Boca & Ashmore, 1980; Williams & Bennet, 1975) and more recently (Deaux & Lewis, 1984) has been shown to be composed of four components: psychological traits, role behaviors, occupations, and physical characteristics.

Although it is difficult to determine precisely why stereotypical gender distinctions that are found *outside* organizational settings are less likely to be seen *within* organizations, two plausible explanations have been advanced (Eagly & Johnson, 1990). First, when managers and career professionals are hired to fill positions in an organization, these positions carry the same job descriptions, without regard to whether the applicant is male or female. Hence, the criteria for selection would have no gender-linked differentiation but instead stress the characteristics of effective leadership. Second, once in a management or professional role, these individuals would be socialized by important others to fit job expectations in the organization. Again, their roles would not differ on the basis of their gender.

The question of whether leadership styles differ for women and men, both inside and outside organizations, was addressed by a comprehensive meta-analysis conducted by Eagly and Johnson (1990). They located and analyzed hundreds of leadership studies performed in three different contexts: (a) organizational studies using

management-level personnel; (b) laboratory studies involving university students who were not leaders; and (c) assessment studies employing individuals not selected for leadership, who responded to questions assessing their leadership styles.

Eagly and Johnson (1990) found support for their expectation that differences between women and men who occupy the same leadership role in organizations are smaller than differences observed in laboratory experiments and assessment studies. Specifically, they reported that in the organizational studies of real leaders, the stereotypical expectation that women lead in an *interpersonally oriented* style and men in a *task-oriented* style received no support. On the other hand, in laboratory and assessment studies in which actual leaders were not studied, women and men did differ on *interpersonal-* versus *task-oriented* style in ways that were consistent with gender stereotypes. However, on the second leadership variable of *democratic* versus *autocratic* style, women in all three types of studies tended to lead in a more democratic and participative manner than did men, who led in a more autocratic and directive manner. Therefore, women in organizations did fulfill stereotypical expectations by leading in a more democratic fashion, but they did not in terms of an interpersonal- versus task-oriented style of leadership, where there were no differences. Unfortunately for present purposes, the level of analysis in these studies involved a macro analysis of general approaches, not a micro analysis of language styles. The present investigation was designed to provide, for the first time, a detailed linguistic analysis of one form of leadership—giving criticism—in an organizational context.

RESEARCH QUESTIONS

The literature reviewed above shows differences in women's and men's style of criticism giving, as well as differences in their style of language use and the effects of that language use. Because these differences are consistent with gender stereotypes, albeit of a lesser magnitude, they can be characterized as stereotypical in nature. On the other hand, the research on gender and leadership style in organizations shows differences to be less stereotypical for several important strategy indices. Because these bodies of research reviewed present conflicting expectations regarding differences, we have stated four research questions, rather than hypotheses, to be addressed in this two-part investigation:

Research Question 1: Do female and male managers and professionals differ in their language use in role-playing criticisms they have recently voiced to a coworker?

Research Question 2: Does the sex of the coworker, or the sex of the role-play partner, affect critics' language use?

Study 1 engages Research Questions 1 and 2 involving professionals' language use during criticism.

Research Question 3: Do observer judgments of the transcripts of female and male managers' and professionals' criticism giving differ in ways consistent with the Gender-Linked Language Effect?

Research Question 4: Does the sex of the coworker or the sex of the role-play partner influence observers' judgments of the transcripts?

Study 2 addresses Research Questions 3 and 4 regarding observer reactions to critics' language use.

STUDY 1: OBJECTIVE LANGUAGE USE

COLLECTION OF CRITICISM SAMPLES

Eighty-six middle-level managers and professionals (36 women and 50 men) provided the criticisms for this investigation. They were employees of a *Fortune* 100 multinational corporation and were members of seven 2-day communication training workshops led by the second author during several months at the corporation's U.S. headquarters. Nearly all participants in the workshop were college graduates, and they ranged in age from early 20s to late 40s. They occupied middle-management and comparable professional positions at a variety of U.S. sites of the parent organization and held job titles including accountant, computer programmer, engineer, analyst, and shipper. All self-selected themselves to participate in the training program, and their expenses were paid by the organization.

Workshop members were informed that preparatory to training on methods for providing feedback to colleagues, "samples" would be needed of how the participants "normally" voiced their negative appraisals to others. Participants were paired with someone whom they did not know to role-play sample episodes. Whenever possible, the role-play partner was the same sex as the colleague who had been criticized. But within that constraint, partner assignment was random. Each pair was given an audiotape recorder with which to save their examples of criticism, and a degree of privacy to conduct the criticism episodes. Three of the 95 members in the seven workshops opted not to record their criticisms.

Participants were asked to think of a work-related incident in which they had recently given criticism to a coworker. Each criticism giver was encouraged to share sufficient information about the episode to be replayed so that the role-play partner could effectively play the role (e.g., important comments, responses, and nonverbal behaviors). Finally, they were asked to retell their criticism to the partner "exactly

as you said it" when the original criticism episode had occurred. Twenty-six of the role-play partners (30%) offered occasional role-play comments, for example, "Yeah. What's on your mind?" (Seventeen responded one to four times during the criticism episodes, and 9 did so more than five times.)

The resultant episodes ranged from slightly less than 1 minute to more than 4 minutes in length. When the first person finished, they switched roles and the partner became the criticism giver. For the most part, the episodes focused on work problems related to missed deadlines, incomplete work, incorrect procedures, and perceived level of motivation. The trainer's observations, as well as subsequent examinations of the recordings, found that participants were highly engaged in the replaying of these episodes. Participants' accounts during subsequent debriefing discussions also suggested a high degree of recall and realism in the role plays.

Given the lack of feasibility of recording the original criticism-giving episodes in situ, the recall role-play procedure was employed in this investigation under the following rationale: Previous studies have demonstrated that the messages people construct in simulations are similar to those they produce in "real-world" situations (Applegate, 1980, 1982). In interpersonal influence research, for example, respondents have been asked to select (Dillard & Burgoon, 1985) or to construct (Cody, 1982) messages from recalled situations in which they participated. Participants in role plays and simulations also have been asked to construct influence messages (Dillard, 1988; Schleuter & Smythe, 1984; Tracy, Craig, Smith, & Spisak, 1983). In particular, messages produced in recalled critical incidents via cued recall (like that of the role-play simulations used here) have been found to approximate conversational behaviors (see the review by Benoit & Benoit, 1988). Finally, Fairhurst et al. (1984) used a method quite similar to ours in their own study of criticism giving.

TRANSCRIPTION OF CRITICISM SAMPLES

The recordings of the recalled criticisms were assigned arbitrary speaker numbers (e.g., "Speaker 14A") and were transcribed orthographically by advanced communication students enrolled at a large western university. The typed transcripts were verified by a second transcriber and discrepancies adjudicated by a final verifier. No indications of speaker sex, the criticized coworker's sex, or the sex of the role-play partner were given. These 92 transcripts were assessed for the degree to which the participants had followed instructions. Six were eliminated from the sample because the person criticized was not a coworker or because the incident was not related to work, leaving 86 (36 female and 50 male) transcripts for analysis. The frequency with

which the speakers role-played a criticism they had given a female versus a male coworker and the frequency with which they enacted the episode with a female versus a male partner are given in Table 1. For the analysis of language use in Study 1 and language effects in Study 2, coworker sex and partner sex served as independent variables, along with speaker sex.

To determine whether female and male managers and professionals differed in the length of their criticisms, a *t* test was conducted on the number of words uttered by each professional. Results failed to show gender differences in the length of the criticism episodes, although they approached significance favoring men, $t(84) = 1.85$, $p = .07$, two-tailed.

LANGUAGE CODING

Previous research had suggested 18 language features that had differentiated female from male communication in nonorganizational settings and that might differ for these criticism-giving episodes. These are presented in the appendix and included language elements that have been generally more indicative of female, such as *intensive adverbs* ("really," "so"), *references to emotions* ("If you really cared about this project . . ."), and longer *mean-length sentences*. The male features included *judgmental adjectives* ("Reports like these can be a drag") and *directives* ("Think of some more").

The 86 recalled criticisms were coded for the 18 language features by students enrolled in an advanced language behavior analysis class taught by the first author. They were trained to identify two or three linguistic elements each week and, in teams of five to six, worked individually to code subsets of the transcripts. Reliability assessments indicated a generally high degree of consistency of the language data (intraclass reliability estimates [Winer, 1971, pp. 283-289] ranged from .74 to .98, with a mean of .89). Each speaker's data were aggregated across team members and transformed to provide the number of occurrences per 100 words.

RESULTS

Discriminant Analysis

The question of whether female and male managers and professionals differ in language use (Research Question 1) was answered by conducting a stepwise discriminant analysis in which the gender of the criticism giver was the criterion (or dependent) variable and the 18 language features were the predictor (or independent) variables. This multivariate statistical procedure has important advantages over the

Table 1
Frequencies for Speaker Sex, Coworker Sex, and Dyad Partner Sex (N = 86)

Coworker Sex	Speaker Sex	
	Female (n = 36)	Male (n = 50)
Female coworker (n = 29)	Female partner (n = 9)	Female partner (n = 7)
	Male partner (n = 7)	Male partner (n = 6)
Male coworker (n = 57)	Female partner (n = 10)	Female partner (n = 7)
	Male partner (n = 10)	Male partner (n = 30)

Note. Because 6 of the 92 participants originally recorded were dropped from the analysis for failing to follow instructions, the number of female (n = 33) and male (n = 53) partners does not match the number of female and male speakers.

more commonly used univariate, or one-variable-at-a-time, approach. Because speech is both produced and comprehended as a *combination* of interrelated language features, rather than a series of independent words, greater construct validity (Kerlinger, 1973, pp. 461-469) can be attained through the use of multivariate procedures such as this. Discriminant analysis identifies the weighted combination of variables that best predict some criterion variable, in this case speaker gender.

Results of the stepwise discriminant analysis indicated that the female and male managers and professionals used the coded language features in different ways, Wilks's lambda = .68, $F(13, 72) = 2.60, p = .005, R^2 = .32$. The accuracy of reclassification of transcripts in terms of speaker gender, based on a weighted combination of 13 language features, was 72% (78% for men and 64% for women, using the conservative "jackknifed" procedure [Lachenbruch & Mickey, 1968]). A chi-square analysis of the comparative accuracy of reclassifying female and male criticsizers failed to demonstrate a gender difference in identifiability, $\chi^2(1, N = 86) = 1.38, p > .05$. The overall accuracy of gender prediction of 72% was similar to that found in seven earlier studies using the same discriminant analysis methodology (Mulac, 1998), where the median accuracy was 78%.

Although the accuracy of prediction by the discriminant analysis was consistent with earlier studies that demonstrated gender-linked linguistic differences in other settings, five language features failed to distinguish gender here: *elliptical sentences, vocalized pauses, uncertainty verbs, locatives, and "I" references*.² More important, the specific language features that did predict gender in this study were indicative of the *opposite* gender in earlier studies in roughly 50% of the instances. As indicated in Table 2, six language features were more

indicative of male managers and career professionals (listed in order of importance of discrimination): *total words, negations, questions, judgmental adjectives, references to emotion, and oppositions*. However, in earlier investigations, four of them (*negations, questions, references to emotion, and oppositions*) had been found to be more predictive of female speakers. The features that were more predictive of female managers and career professionals in this study were *intensive adverbs, longer mean length sentences, hedges, references to quantity, directives, dependent clauses, and sentence initial adverbials*. But earlier research had demonstrated that two of them (*references to quantity and directives*) were generally found to be more a part of men's speech.

These results suggest that although there were gender-linked differences in the spoken criticisms, these differences were only partially consistent with previously found distinctions. In fact, as related in the Discussion section, many of the linguistic differences found here can be seen as counterstereotypical in nature.

Effects of Coworker Sex and Partner Sex

The question of whether the sex of the coworker or the sex of the role-play partner affected the gender-discriminating language use (Research Question 2) was assessed by means of a three-way ANOVA: 2 (speaker sexes) \times 2 (coworker sexes) \times 2 (partner sexes). The dependent variable was language feature use, in the form of the discriminant function score for each speaker. That is, each speaker's combined score for gender-predictive language use was analyzed for effects. Results of the three-way ANOVA failed to demonstrate any interactions involving either coworker sex or partner sex (all F s $<$ 2.82, p s $>$.10). In other words, the criticsizers' language use was not affected by either the sex of the coworker or the sex of the partner.

STUDY 2: SUBJECTIVE PSYCHOLOGICAL RATINGS

Study 2 sought to answer Research Question 3 by determining whether the criticisms provided by the 86 middle-level managers and career professionals led to judgments that were consistent with the Gender-Linked Language Effect (Mulac, 1998). That is, on the basis of their language, are female criticsizers judged higher in *Socio-Intellectual Status* and *Aesthetic Quality*, and are male criticsizers rated higher in *Dynamism*? The counterstereotypical language use found in Study 1 suggested that finding the Gender-Linked Language Effect for these criticisms was less likely than in earlier studies. However, because the

Table 2
*Summary of the Stepwise Discriminant Analysis of
 18 Language Features Predicting Speaker Gender*

Discriminant Analysis Step	Language Feature	Gender Predicted ^a	Canonical Coefficient ^b	F-to- Remove	Wilks's Lambda
1	Intensive adverbs	Female	.87	12.25	.91
2	Mean length sentences	Female	.50	4.87	.88
3	Words	Male	-.15	2.43	.85
4	Negations	Male ^c	-.38	2.99	.83
5	Hedges	Female	.33	2.29	.81
6	References to quantity	Female ^c	.26	1.04	.80
7	Questions	Male ^c	-.45	3.28	.78
8	Judgmental adjectives	Male	-.53	4.51	.76
9	Directives	Female ^c	.39	2.49	.74
10	References to emotion	Male ^c	-.41	3.03	.72
11	Oppositions	Male ^c	-.31	1.93	.71
12	Dependent clauses	Female	.31	2.01	.69
13	Sentence-initial adverbials	Female	.30	1.18	.68

Note. Wilks's lambda = .68, $F(13, 72) = 2.60, p = .005, R^2 = .32$. Reclassification accuracy = 72% (male = 78%, female = 64%), jackknifed to take into account the number of speakers and language variables included in the discriminant function (Lachenbruch & Mickey, 1968).

a. Relatively frequent use of the variable led to this prediction for speaker gender.

b. Coefficients are standardized. The designation of female indicators as having positive coefficients and male as negative is arbitrary.

c. Gender predicted by these language features was the opposite of that found in earlier studies.

effect had been found in all eight previous investigations employing the present approach (Mulac, 1998), it was important to test for its presence in this context. In addition, Study 2 sought to answer Research Question 4: whether the sex of the criticized coworker or the sex of the role-play partner influenced the transcripts in ways that affected observer judgments of the criticizer.

SEX-RECOGNITION AUXILIARY STUDY

When raters are able to identify the sex of speakers, their judgments can be affected by the gender stereotypes they hold (Mulac et al., 1985). If observers know that a particular speaker is a man, they may be influenced by their stereotypical notions of men, as well as by what the speaker said in criticizing a coworker. Consistent with the protocol of the earlier investigations, we tested to determine whether untrained individuals could accurately guess the sex of these speakers, because similar observers would be called upon to make psychological judgments of the same speakers in Study 2. Volunteer respondents for the auxiliary study were 96 students (62 women and 34 men) from another introductory communication course at the same university. They were

asked to guess the sex of the speakers, for eight-example subsets of the transcripts, using a forced-choice form.

Binomial probabilities were computed for observers' degree of success in guessing the sex of each speaker. These indicated that the observers were unable to guess speaker sex with anything better than chance accuracy (mean binomial probability [two-tailed] = .57, $SD = .36$). This null finding was consistent with all earlier studies of the Gender-Linked Language Effect (Mulac, 1998) and meant that subsequent raters could not be influenced by gender stereotypes.

To determine whether female and male criticisms differed in terms of the accuracy with which observers could guess their sex, a t test was performed on these scores. The results indicated that no difference existed between the female and male criticsers, $t(84) = 0.44$, $p = .66$, two-tailed.

RATING INSTRUMENT

To measure untrained observers' evaluations of speakers' psychological characteristics, the Speech Dialect Attitudinal Scale (SDAS) (Mulac, 1975, 1976) was employed. This 12-item semantic differential has been used in earlier investigations that found the Gender-Linked Language Effect for three personality dimensions: *Socio-Intellectual Status*—high social status/low social status, white-collar/blue-collar, literate/illiterate, and rich/poor; *Aesthetic Quality*—pleasant/unpleasant, beautiful/ugly, sweet/sour, and nice/awful; and *Dynamism*—strong/weak, active/passive, loud/soft, and aggressive/unaggressive. These dimensions parallel Zahn and Hopper's (1985) empirically derived factors of communicator evaluation: *Superiority*, *Attractiveness*, and *Dynamism*.

RATERS

The 127 raters (95 women and 32 men) who provided evaluations of the psychological characteristics of the speakers were volunteers (for course credit) from another introductory course in communication at the same university. They were premajors in communication and ranged from 18 to 25 years of age, with a median age of 20.

PROCEDURE

The raters were given brief instructions on how to use the SDAS and were asked to rate the speaker of each transcript "as a person." They were then given transcript booklets of eight criticisms (proportionally balanced for speaker sex and coworker sex).

RESULTS

Validity and Reliability of Psychological Judgments

The construct validity of the psychological judgment data was assessed by means of a factor analysis to determine the dimensional makeup of the SDAS judgments (Kerlinger, 1973, pp. 461-469). The same three-factor solution was found (using common-factor and Varimax procedures) as has been established in numerous earlier studies: *Socio-Intellectual Status*, *Aesthetic Quality*, and *Dynamism*. These dimensions accounted for 69% of the item variance.

On the basis of the factor analysis, the scores for the 12 items were selectively summed to form dimension scores for the three factors. These were assessed for reliability, demonstrating that the intraclass reliability (Winer, 1971, pp. 283-289) was sufficiently high to be meaningful (coefficients ranged from .80 to .94, with a median of .89).

Multivariate Analysis of Variance

To determine whether the managers and professionals criticized coworkers in ways that supported the Gender-Linked Language Effect, the dimension scores of each speaker were aggregated across raters and subjected to a three-way MANOVA: 2 (speaker sex) \times 2 (coworker sex) \times 2 (partner sex). The three SDAS dimensions of psychological judgment formed the dependent variables.

The result for the multivariate main effect for speaker sex failed to show any difference on the three psychological characteristics, Wilks's $\lambda = .94$, $F(3, 76) = 1.47$, $p = .23$. A power analysis (Cohen, 1977) indicated that the MANOVA had substantial power to detect any gender-linked differences that might have been present (power = .97; see Mulac, 1998, for a discussion of effect size for the Gender-Linked Language Effect). In opposition to eight earlier investigations, female and male managers and professionals in this study were not found to differ on either *Socio-Intellectual Status*, *Aesthetic Quality*, or *Dynamism*.

The assessment of multivariate interactions also failed to uncover any effects for combinations of independent variables. Results showed that neither the sex of the coworker criticized nor the sex of the role-play partner influenced the judgments of the criticisms given by female and male managers and professionals, Wilks's $\lambda < .97$, $F_s < 1.00$, $p_s > .50$. That is, their criticism giving was in no way influenced by the sex of the recipient (either actual or copresent).

DISCUSSION

GENDER-DIFFERENTIATING, COUNTERSTEREOTYPICAL LANGUAGE USE

Results of the discriminant analysis in Study 1 showed that the female and male managers and career professionals in this study *did* use language differently while role-playing a criticism they had recently voiced to a coworker. This finding provided an affirmative answer to Research Question 1.

Although the overall finding demonstrating gender-linked linguistic differences is consistent with previous research in a number of settings, 50% of the specific language features that differentiated gender in this study were indicative of the *opposite* gender in previous investigations. In an earlier study, Mulac and Lundell (1986) noted the “fluctuating nature of linguistic overlap” between women and men in different communication contexts, but this is the first study in which the findings indicate a crossover of language use. Indeed, of the six language features found to be more indicative of male managers and career professionals in this study (*words, negations, questions, judgmental adjectives, references to emotion, and oppositions*), four have been shown earlier to be more predictive of female speakers (*negations, questions, references to emotion, and oppositions*). Furthermore, among seven language features that were more predictive of female managers and career professionals in this study (*intensive adverbs, longer mean length sentences, hedges, references to quantity, directives, dependent clauses, and sentence initial adverbials*), two have been demonstrated earlier to be more a part of men’s speech (*references to quantity and directives*). These results suggest that whereas there were gender-linked differences in the spoken criticisms—just as studies have revealed gender differences in more general criticism giving (Andrews, 1987; Baxter, 1984; Tracy & Eisenberg, 1990/1991; Tracy & McLaurin, 1991) and leadership style (Eagly & Johnson, 1990)—the specific linguistic differences obtained in this investigation were only partially consistent with language differences from the line of research that has underscored the Gender-Linked Language Effect. In fact, many of the linguistic differences found here can be seen as *counterstereotypical* from the standpoint of that body of research.

Additional analyses sought to answer Research Question 2 by determining whether the sex of the coworker or the sex of the role-play partner affected the criticizers’ gender-discriminating language use. Results of the ANOVA on language scores (in the form of discriminant function scores) indicated that the criticizers’ language was not influenced by either coworker sex or role-play partner sex—thus answering this research question in the negative. This suggests that no communicator accommodation (Giles et al., 1987) occurred in this context, at

least for the linguistic and psychological variables measured. It is of course possible that these professionals, functioning in the organizational context, perceived no gender differences in coworker or partner language use or psychological characteristics. In that case, they would believe that there were no speech patterns differing from their own to which they could converge linguistically.

GENDER-LINKED LANGUAGE EFFECT

In Study 2, preliminary assessments of the transcripts determined that, consistent with earlier studies, third-party observers were not able to guess the sex of the female and male criticizers with anything better than chance accuracy. Furthermore, factor analysis of the psychological judgment data resulted in the same three-factor solution found in numerous earlier studies: *Socio-Intellectual Status*, *Aesthetic Quality*, and *Dynamism*. However, results of the principal analysis performed to determine whether the managers and professionals criticized coworkers in ways consistent with the Gender-Linked Language Effect (Research Question 3) failed to find any differences on these three psychological characteristics. As opposed to eight earlier investigations (Mulac, 1998), female and male managers and career professionals were not perceived to differ on *Socio-Intellectual Status*, *Aesthetic Quality*, or *Dynamism*, even though a power analysis demonstrated a substantial likelihood of finding any real differences that might have existed. This unique result in an organizational context is consistent with Carless's (1998) finding that in a large international corporation, subordinates evaluated their female and male leaders equally in terms of leadership capabilities.

In one sense this null finding was not surprising, given the result in Study 1 that roughly 50% of the gender-distinguishing language features were contrary to previous findings and also contrary to gender stereotypes. For example, earlier research had demonstrated that higher-than-average use of the feminine language feature *oppositions* (here used more by men), led to diminished *Dynamism* ratings (Mulac & Lundell, 1986; Mulac, Lundell, & Bradac, 1986). Similarly, *references to emotion* (also used more here by the male criticizers) lowered *Dynamism* ratings (Mulac et al., 1986; Mulac, Studley, & Blau, 1990) but also raised *Socio-Intellectual* judgments (Mulac & Lundell, 1994; Mulac et al., 1990) and *Aesthetic Quality* ratings (Mulac & Lundell, 1994). It is reasonable to surmise that this countergender language use on the part of the managers and professionals countervailed the Gender-Linked Language Effect in this context. It appears that in this organizational setting, the female professionals employed linguistic strategies that enhanced their perceived strength and aggressiveness (*Dynamism*). Similarly, the men used strategies that improved their

perceived social status and literacy (*Socio-Intellectual Status*) and their attractiveness and pleasantness (*Aesthetic Quality*).

In addition, no effects were found for a statistical interaction between speaker sex and either coworker sex or partner sex. It appears that neither the sex of the coworker criticized nor the sex of the role-play partner influenced the language effects of female and male criticism givers, therefore answering Research Question 4 in the negative. This was consistent with the finding of Study 1, that no form of communicator accommodation (Giles et al., 1987) occurred here in terms of language judgments.

What might account for the failure of 5 of the 18 gender-discriminating linguistic features identified in earlier research on the Gender-Linked Language Effect to discriminate between men's and women's communication in this investigation? What might explain the fact that nearly half of the specific gender-related linguistic differences found in this study were *opposite* of those associated with the Gender-Linked Language Effect in earlier studies? And why might observer judgments of the transcripts of female and male managers' and professionals' criticism giving *not* differ in ways consistent with judgments supporting the Gender-Linked Language Effect in other studies? There are several possible answers.

First, it is likely that factors unique to the research *participants* in this study may well have contributed to the differences in findings—they were career managers and professionals with a large corporation. In addition, each encoded a message that not only had high salience for them but was rooted in a real episode that had recently occurred in their organizational setting.

Second, features of the communication *task* may have led to the differences between this study and previous work by Mulac and his colleagues. For example, although previous studies had underscored gender-linked tendencies in *locatives* (Mulac & Lundell, 1994), *"I" references* (Mulac et al., 1990), *vocalized pauses* (Frances, 1979), *uncertainty verbs* (Mulac & Lundell, 1994), and *elliptical sentences* (Mulac & Lundell, 1986)—differences not found in this study—the tasks involved in those investigations included descriptions of landscape photographs, interviews, impromptu essays, and problem-solving interactions, respectively. In the present study, the communication context was confrontational in nature. It is not surprising that these five language features would not be significantly different for men and women when the task required repeating voiced criticism of others' behavior, interactions not likely to be uncertain, focused on "I," or foreshortened. More than the communication tasks in most previous studies of the Gender-Linked Language Effect, criticism giving requires attention to multiple interactional goals, especially to managing one's own identity, as well as the identity of the recipient of the criticism (Tracy & Eisenberg, 1990/1991).

Third, the norms concerning criticism giving in the *organization* from which the participants were drawn may have interacted with the gender of criticizers to produce a particular pattern of gender-related language differences at odds with the pattern of linguistic differences typically associated with the Gender-Linked Language Effect. Research on organizational culture (Smircich & Calas, 1987) suggests that organizations' norms concerning a host of practices do not merely have powerful and pervasive effects on organization members but may be contrary to what those members encounter outside the organization (Calas & Smircich, 1996; Epstein, 1981; Nkomo & Cox, 1996).

In short, especially in research settings with high ecological validity, a host of factors may interact with speakers' gender to produce a *particular pattern* of linguistic differences falling within the general rubric of the Gender-Linked Language Effect. Indeed, future research on the Gender-Linked Language Effect might profit not only from investigating gender-related language differences in a variety of naturally occurring contexts (Frey, 1994) but by developing a priori theoretical expectations about the specific configuration of linguistic features likely to emanate from *dimensions* of those contexts that are most germane for men and women. In the area of peer criticisms, for example, findings that the linguistic features of criticism vary depending on the quality of the coworker's *other work* (Fairhurst et al., 1984), the degree to which *continued interaction* with the recipient is anticipated (Tracy & McLaurin, 1991), and the degree to which a *personal attack* versus a *task disagreement* precipitated the criticism giving (Nomura & Barnlund, 1983)—when combined with well-established gender differences in concern for others' feelings in criticism giving (Andrews, 1987; Baxter, 1984), directness in voiced criticisms (Tracy & Eisenberg, 1990/1991), and need for approval from the criticized other (Tracy & McLaurin, 1991)—may offer a variety of *interaction* effects between gender and context.

In addition, the present findings suggest the need for extending the boundaries of communicators, tasks, and communication contexts in which the Gender-Linked Language Effect is tested. In contrast to criticism giving, are there communication tasks in organizational settings where prototypical gender-distinguishing language *is* used by female and male managers? Are there groups of individuals, other than organization managers and professionals, who *fail* to conform to gender prototypical language use? More broadly, the present findings would lead us to expect other combinations of communicators and tasks in which gender-consistent language use and effects are not the norm. For example, we are currently investigating whether women and men, working in Internet-mediated virtual groups, use or refrain from using gender-typical language. Not only are Internet-mediated task groups likely to increase within organization settings, a unique characteristic of this medium, and one that we are testing, is complete member

anonymity, including gender anonymity. Such investigations will help establish the limits of the Gender-Linked Language Effect and lead to a better understanding of why women and men, in general, use language differently.

CRITICISM-GIVING RESEARCH

At the same time, several results of this investigation are consistent with key findings from traditional research on criticism giving. For example, whereas men have been found to be more direct in their criticism than women, women are more direct when they are in superordinate roles in their relationships than when in subordinate positions (Tracy & Eisenberg, 1990/1991). This is consonant with findings in Study 1, in which female middle managers and career professionals used more *directives* and *references to quantity*—language features typically associated with men's speech. It also may explain why these results were not obtained in previous studies of the Gender-Linked Language Effect, because the women studied in those investigations were not in superordinate relational roles.

The specific nature of the gender-related differences in language used in criticism giving that were revealed in this investigation also proffers the utility of wedding the perspective and methods in the Gender-Linked Language Effect research paradigm with the approach taken in more global studies of gender differences in how criticism is communicated. Traditional studies of gender-related differences in motives (Andrews, 1987; Baxter, 1984; Tracy & McLaurin, 1991), goals (Tracy & Eisenberg, 1990/1991), and responses (Diesel, 1996) could be sharpened with the specific language features analyzed in this investigation. Indeed, more than these and other studies of criticism giving in the past, the particular pattern of linguistic features associated with the gender differences found in this study offers insights into very specific ways in which men and women differ in how they communicate criticism to coworkers. For example, men's and women's criticism giving differed in terms of particular sentence features (more *questions*, *words*, and *negations* for men vs. more *directives* and *longer mean length sentences* for women), types of clauses and phrases employed (*judgmental adjectives* and *oppositions* for men vs. *dependent clauses* and *sentence initial adverbials* for women), references (*references to emotion* for men vs. *references to quantity* for women), and modifiers used (*hedges* and *intensive adverbs* for women).

Viewed in terms of gender stereotypes, the results suggest that in criticism giving in an organizational setting, female managers and professionals use counterstereotypical language features (*directives* and *references to quantity*), as well as several that are consistent with stereotypes (*hedges*, *intensive adverbs*, and *longer mean length*

sentences). In equal measure, the men employ both counterstereotypical features (*references to emotion, oppositions, and questions*) and those that are consistent with stereotypes (*more words and judgmental adjectives*). It appears that both women and men understand that their positions of leadership in the organization require that they offset stereotypical expectations in their criticism of coworkers.

In summary, the findings provide, for the first time, a glimpse at the contextual complexity that appears to temper the Gender-Linked Language Effect. In future investigations, it would be reasonable to expect that other women and men, communicating in other settings with other communicational purposes, might also refrain from displaying stereotypical linguistic differences. In the context tested, managers and professionals refrained from criticizing colleagues in a gender-stereotypical fashion, apparently because of the manor in which they had been selected for positions of leadership and the corporate culture in which they functioned. Their stylistic approach operated to ameliorate the effects of gender-linked language differences to create, within the organization, a more nearly level playing field.

APPENDIX
Descriptions, Examples, and Citations^a for 18 Language
Features Found in Previous Empirical
Studies to Predict Communicator Gender

1. SENTENCES

- A. *Elliptical sentences* ("Gorgeous!" "A beautiful snowy setting." "Daytime."): A unit beginning with a capital letter and ending with a period in which either the subject or predicate is understood. Mulac and Lundell (1986), M+^b (oral descriptions of photographs); Mulac and Lundell (1994), M+ (written descriptions of photographs).
- B. *Questions* ("What is [Communication] 12?" "What do you do?"): Directives in question form were not counted. Fishman (1978), F+ (couple's conversations); Mulac, Wiemann, Widenmann, and Gibson (1988), F+ (dyadic interactions).
- C. *Directives* ("Think of another." "Why don't we put that down?"): Haas (1979), M+ (interviews); Mulac et al. (1988), M+ (dyadic interactions).
- D. *Negations* ("You don't feel like looking . . ."): A statement of what something is not. Mulac and Lundell (1986), F+ (oral descriptions of photographs); Mulac, Lundell, and Bradac (1986), F+ (public speeches).
- E. *Mean length sentences*: The number of words divided by the number of sentences, defined as sequences of words beginning with a capital letter and ending with a period. Hunt (1965), F+ (written essays); Mulac et al. (1986), F+ (public speaking); Mulac and Lundell (1986), F+ (oral descriptions of photographs); Mulac and Lundell (1994), F+ (written descriptions of photographs); Mulac, Studley, and Blau (1990), M+ (fourth-grade essays); Poole (1979), F+ (interviews).

2. CLAUSES AND PHRASES

- A. *Sentence-initial adverbials* ("Instead of being the light blue . . . , it is . . ." "Because the trees still have snow . . . , it looks like . . ."): Answers the questions: how?, when?, or where? regarding the main clause. Mulac et al. (1986), F+ (public speeches); Mulac et al. (1988), F+ (dyadic interactions); Mulac and Lundell (1994), F+ (written descriptions of photographs); Mulac et al. (1990), F+ (fourth-grade written essays).
- B. *Dependent clauses* ("which is mostly covered . . ."; "where the shadows are"; "in which something . . ."): A clause that serves to specify or qualify the words that convey primary meaning. Beck (1978), F+ (oral descriptions of Thematic Apperception Test (TAT) cards); Hunt (1965), F+ (written essays); Mulac et al. (1990), F+ (fourth-grade impromptu essays); Mulac and Lundell (1994), F+ (written descriptions of photographs); Poole (1979), F+ (interviews).
- C. *Oppositions* ("The snow must have fallen fairly recently, but it has been a while . . ." "very peaceful, yet full of movement . . ."): Retracting a statement and posing one with an opposite meaning. Mulac and Lundell (1986), F+ (oral descriptions of photographs); Mulac et al. (1986), F+ (public speeches).
- D. *Judgmental adjectives* ("distracting," "bothersome," "nice . . ."): These indicate personal evaluation rather than merely description. Mulac and Lundell (1994), M+ (written descriptions of photographs); Mulac et al. (1990), M+ (4th-, 8th-, and 12-grade impromptu essays); Sause (1976), M+ (interviews).

3. VERB PHRASES

- A. *Uncertainty verbs* ("I wonder if . . .," "seems to be . . .," "I'm not sure . . ."): Verb phrases indicating apparent lack of certainty. Hartman (1976), F+ (interviews); Mulac and Lundell (1994), F+ (written descriptions of photographs); Poole (1979), F+ (interviews).

4. MODIFIERS

- A. *Intensive adverbs* ("very," "really," "quite"): Crosby and Nyquist (1977), F+ (dyadic interactions); Lapadat and Seesahai (1978), F+ (group discussions); McMillan, Clifton, McGrath, and Gale (1977), F+ (group discussions); Mulac and Lundell (1986), F+ (oral descriptions of photographs); Mulac et al. (1986), F+ (public speeches); Mulac et al. (1988), F+ (dyadic interactions).
- B. *Hedges* ("sort of," "kind of," "possibly," "maybe"): Modifiers that indicate lack of confidence in, or diminished assuredness of, the statement. Crosby and Nyquist (1977), F+ (dyadic interactions); Mulac et al. (1990), F+ (fourth-grade impromptu essays).

5. REFERENCES

- A. *References to emotion* ("happy," "enticing," "depressing"): Any mention of an emotion or feeling. Balswick and Avertt (1977), F+ (written response to

- questionnaire); Gleser, Gottschalk, and John (1959), F+ (event descriptions); Mulac and Lundell (1994), F+ (written descriptions of photographs); Mulac et al. (1986), F+ (public speeches); Staley (1982), F+ (oral descriptions of pictures).
- B. *References to quantity* ("below 32 °F," "most of the area," "6-8 thousand feet elevation"): Any mention of an amount. Gleser et al. (1959), M+ (event descriptions); Mulac and Lundell (1986), M+ (oral descriptions of photographs); Sause (1976), M+ (interviews); Warshay (1972), M+ (event description essays); Wood (1966), M+ (oral descriptions of pictures).
- C. *Locatives* ("right next to the . . .," "in the background"): Usually indicating the location or position of objects. Gleser et al. (1959), M+ (event descriptions); Mulac and Lundell (1994), M+ (written descriptions of photographs).
- D. *"I" references* ("I think we should . . ."): First-person singular pronoun in the subjective case. Mulac and Lundell (1994), M+ (written descriptions of photographs); Mulac et al. (1990), M+ (fourth-grade impromptu essays).

6. MISCELLANEOUS

- A. *Words*: Total number of words spoken. Bilous and Krauss (1988), F+ (problem-solving groups); Mulac (1989), M+ (dyadic interactions).
- B. *Vocalized pauses* ("uh," "umh"): Francis (1979), M+ (getting-acquainted dyadic interactions); Mulac et al. (1986), M+ (public speeches).

a. Citations indicate empirical studies in which the variable was found to differ for male and female communicators.

b. Gender distinctions, in terms of whether the variable was more indicative of male or female communicators, are as follows: M+ = male, F+ = female. (Note, however, that the linguistic categories were not in all cases precisely equivalent across studies.) Communication contexts in which gender differences were found are indicated in parentheses.

NOTES

1. It is clear that most current researchers use *sex* to refer to the biological distinction and *gender* to refer to the social and stereotypical distinctions. However, because of the substantial relationship between these terms, their use has at times been blurred. In this article, our interest lies with individuals' gender, the effects of society and culture that affect their styles of language use and criticism giving. At times, however, we test whether factors other than speakers' gender influences their language use, for instance, the sex of the coworker they were criticizing.

2. It is common for language features that help distinguish gender in one communication context fail to do so in another (Mulac, 1998).

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