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The Perceptions of Verbal and Nonverbal Flirting Cues in Cross-Sex Interactions

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Abstract

Research has shown men perceive more sexual interest from female targets than do women in cross-sex interactions (e.g., Abbey, 1982). A study utilizing a 2 (sex of participants) x 2 (flirting cue: verbal or nonverbal) ANOVA design was employed to test whether cue usage influenced sex differences in perceptions of sexual interest. Results indicate sex of participant and cue usage interact to predict perceptions of sexual interest. Results are discussed with regard to sex differences in cue preferences and cue explicitness.

In her seminal study examining men's and women's perceptions of cross-sex interactions, Abbey (1982) found that men and women disagreed about the amount of sexual interest conveyed by women in cross-sex interactions. Overall, men perceived women to be more seductive than the women themselves did. This finding has been replicated and extended in a variety of studies by Abbey and her colleagues (Abbey, 1987; Abbey, Cozzarelli, McLaughlin, & Harnish, 1987; Abbey & Melby, 1986; Abbey, Zawacki, & McAuslan, 2000; Harnish, Abbey, & DeBono, 1990; Jacque-Tiura, Abbey, Parkhill, & Zawacki, 2007) and others (e.g., Haselton & Buss, 2000; Henningsen, Henningsen, & Valde, 2006; Koeppel, Montagne-Miller, O'Hair, & Cody, 1993; Koukanos & Letch, 2001; Levesque, Nave, & Lowe, 2006). Researchers have also found that males and females can distinguish between seductive and friendly behaviors (e.g., Shotland & Craig, 1988).

One interesting component of the studies examining perceptions of cross-sex interactions has been a focus on nonverbal instead of verbal communication (e.g., Abbey et al., 1987; Abbey & Melby, 1986; Major & Heslin, 1982). Research indicates that men and women may differ in how they employ verbal and non-verbal cues in flirtatious interactions with opposite sex targets (Whitty, 2004). Although both men (e.g., Greer & Buss, 1994) and women (e.g., Muelenhard, Koralewski, Andrews, & Burdick, 1986) may employ verbal and / or nonverbal cues, de Weerth and Kalma (1995) found that women employ more nonverbal tactics while men employ more verbal tactics in courtship related encounters. If men and women employ flirting scripts that differ in whether verbal or nonverbal flirting cues are used, the focus of past research on nonverbal cues may lead to a bias favoring higher perceptions of sexuality by men in cross-sex interactions. By focusing on cues primarily used by women, researchers may be relying on cues men look for in interactions more than women do.

If men and women respond differently to different flirting cues, it is possible studies that manipulate only nonverbal cues could trigger male's perceptions of sexual interest but not female's. If this is the case, sex differences in perceptions of sexual interest may be predicated on cue usage. If males believe there is more sexual interest in cross-sex interactions because they are primed to look for nonverbal cues, one would anticipate females would be primed to look for verbal flirting cues more than men based on the findings of deWeerth and Kalma (1996). Thus, the sex difference in perceptions of sexual interest during cross-sex interactions may be reduced or reversed when flirting cues are verbal rather than nonverbal. The following hypotheses are proposed to test the posited interaction.

Hypothesis 1: Men will perceive target women to be more sexually interested than women will when the target woman displays nonverbal flirting cues.

Hypothesis 2: Women will perceive target women to be more sexually interested than men will when the target woman uses verbal flirting cues.

Method

Participants

Ninety-five participants (46 females and 49 males) were utilized in this study. Participants received course credit for participating. Participants were randomly assigned to conditions.

Procedure

Two short scripts (see appendix) were created to present participants with male-female interactions. There is a history of research on flirting cues utilizing transcripts or written stimuli (e.g., Abbey & Harnish, 1995; Fisher & Walters, 2003; Pryor, et al., 1997). The use of transcripts allows greater control of nonverbal cues the participants may choose to focus on. The interactions involved a female character who initiated flirting behaviors in an on-going interaction. The initiator utilized either neutral nonverbal cues and flirting verbal cues or flirting nonverbal cues and neutral verbal cues during the interaction. The male actor displayed only neutral cues.

Participants read one of the possible scenarios (nonverbal flirting cues; verbal flirting cues). After reading a scenario, each participant filled out questionnaire items assessing the sexual interest of the male and female targets. After completing the questionnaire, participants were debriefed and dismissed.

Stimulus materials

Two different scripted scenarios were utilized. Each scenario began with the following instructions and introductory material:

Consider the following scenario. Please read the scenario over carefully and try to understand what the participants in this scenario might be thinking and feeling. When you have completed reading the scenario and feel comfortable with your understanding of the interaction, please move on to the next page.

"Mike and Jenny are in the same public speaking class. They did not know each other before the class and have never spoken outside of class. However, since the first day of class they have found themselves sitting in desks near one another and have occasionally exchanged small talk about assignments while waiting for class to begin. Today, the instructor, Dr. Zorba, has assigned the students to pair-up with the person next to them for an activity, so Mike and Jenny turned their desks so that they faced each other. The instructor gave the class fifteen minutes for the activity, but Mike and Jenny finish after only five minutes. They have ten minutes left and after a few seconds of silence, the following interaction takes place:"

The interaction that followed utilized either nonverbal cues or verbal cues associated with flirting (see appendix). The nonverbal flirting cues employed included smiling, making eye contact, forward lean and touch. Smiling has been identified as a source of attraction in cross sex interactions in a variety of contexts (Houser, Horan, & Furler, 2007; Koeppel et al., 1993; Moore, 1985). Eye contact forward lean and touch also have been identified as flirting cues in various studies (e.g., Koeppel et al., 1993; Moore, 1985). We utilized three distinct verbal cues: complimenting, indicating one's availability to date the other person, and mild sexual innuendo. Muehlenhard, Koralewski, Andrews, and Burdick (1986) identified compliments and statements of availability as cues that potentially convey interest in another person. Sexual statements such as sexual innuendo also have been identified as verbal flirting strategies used to promote sexual encounters (e.g., Abrahams, 1994; Perper & Weis, 1987).

Measures

Perceived flirting. A measure of the perceived use of nonverbal and verbal flirting cues were included as manipulation checks for the flirting cue manipulation. Individuals were asked, on a seven point scale, if the female targets used nonverbal flirting cues (i.e.,

$M = 5.01$, $SD = 1.85$) and if they used verbal flirting cues (i.e., $M = 5.19$, $SD = 1.75$). Higher scores indicate greater use of the respective cues.

Female sexual interest. Female sexual interest was calculated using four items (Jenny is sexually interested in Mike; Jenny is physically attracted to Mike; Jenny is not sexually attracted to Mike –reverse coded; Jenny would like to pursue a sexual relationship with Mike) with $\alpha = .82$, $M = 5.07$, $SD = 1.15$.

Table 1: Sexual interest (study one)

		Female target
Nonverbal cue		
Male participant		$M = 5.25$ $SD = 0.93$ $CC = 1$ $N = 26$
Female participant		$M = 4.64$ $SD = 1.11$ $CC = -1$ $N = 25$
Verbal cue		
Male participant		$M = 5.46$ $SD = 1.04$ $CC = -1$ $N = 23$
Female participant		$M = 5.45$ $SD = 1.06$ $CC = 1$ $N = 21$

Results

Manipulation checks

A mixed group ANOVA was performed with sex (male or female) and type of flirting cue (nonverbal or verbal) entered as between group factors and perceived flirting (nonverbal or verbal) entered as a within group factor. If the flirting cue manipulation was successful, we would anticipate a significant interaction between flirting cue and flirting perceptions. No other significant effects are predicted.

The interaction between type of flirting cue and perceptions of flirting behaviors was significant, $F(1, 91) = 134.06$, $p < .05$, *partial* $\eta^2 = .60$. Perceptions of nonverbal flirting were higher in the nonverbal flirting cue condition, $M = 6.02$, $SE = .21$, *upper*

bound = 6.44, *lower bound* = 5.59, than in the verbal flirting cue condition, $M = 3.83$, $SE = .22$, *upper bound* = 4.65, *lower bound* = 3.84. Perceptions of verbal flirting were lower in the nonverbal flirting cue condition, $M = 4.25$, $SE = .20$, *upper bound* = 4.28, *lower bound* = 3.37, than in the verbal flirting cue condition, $M = 6.27$, $SE = .22$, *upper bound* = 6.70, *lower bound* = 5.83. No other main effects or interactions were significant. The manipulation of type of flirting cue was effective for perceptions of flirting.

Female sexual interest

A 2 (type of cue: verbal or nonverbal) x 2 (male or female) ANOVA design was utilized to test the hypotheses. An a priori contrast model reflecting the three hypotheses was tested. Means, standard deviations and contrast coefficients are presented in table one. Overall, the model was not significant, $F(1, 91) = 1.96$, $p > .05$, *partial* $\eta^2 = .02$, nor was the residual, $F(2, 91) = 2.01$, $p > .05$, *partial* $\eta^2 = .07$. Because the residual produced a sizeable effect, and because the means suggested an alternate model, a second contrast model was tested post hoc setting the contrast coefficients for both male and female participants' ratings of verbal flirting cues to 1, setting female participants' ratings of nonverbal flirting cues to -2 and male participants' ratings of nonverbal flirting cues to 0. This post hoc model was significant, $F(1, 91) = 9.67$, $p < .05$, produced a non-significant residual with a trivial effect size, $F(2, 91) = .08$, $p > .05$, *partial* $\eta^2 < .01$, and produced a modest effect size, *partial* $\eta^2 = .10$.

Hypothesis 1 was supported by the post hoc model. Men perceived more sexual interest than women did when a woman in an interaction displayed nonverbal flirting cues. However, Hypothesis 2 was not supported. It appears men and women do not differ when evaluating women employing verbal flirting cues. Notably, the post hoc model also indicates that verbal flirting cues tend to produce higher sexuality ratings than nonverbal flirting cues.

Discussion

It was predicted that type of cue would interact with sex of participant to influence the amount of sexual interest individuals perceived from females during flirting interactions. The interaction that emerged indicates that the type of flirting cue employed does influence whether or not a sex difference will appear in perceptions of sexuality. This finding indicates past research focusing on nonverbal cues (e.g., Abbey & Melby, 1986; Major & Heslin, 1982) may have created demand characteristics promoting higher sexuality ratings by men than by women.

Interestingly, verbal flirting behaviors seem to produce a stronger perception of sexual intent than nonverbal flirting behaviors. Message explicitness reflects the freedom a receiver has to interpret a message in different ways (Solomon & Williams, 1997a; 1997b). The more explicit a message, the less freedom a receiver has to infer multiple meanings to that message. In the present study, individuals may have felt more constrained to interpret verbal cues as indicating sexual intent than to interpret non-verbal flirting cues thusly. As Solomon and Williams (1997a; 1997b) found, more sexual explicitness in a message does produce higher sexuality ratings for behavior.

It is possible, given our findings, that the consistent sex difference that emerges for perceptions of cross-sex interactions (e.g., Abbey, 1982) is due more to the ambiguity of nonverbal flirting cues rather than a sex based preference for specific cues as hypothesized here. In other words, men may interpret flirting cues that are ambiguous in

terms of sexual intent as more likely to be sexually motivated than women while more explicitly sexually motivated behaviors are recognized equally by both sexes.

This logic is consistent with past research finding sex differences in perceptions of sexual interest for participants in cross-sex interactions. In an experimental setting where participants know they are being observed (e.g., Abbey, 1982) or video-taped (e.g., Henningsen et al., 2006) it would be unlikely that they would employ behaviors during interactions with explicit sexual connotations. Thus, the sex difference that emerges in those studies may reflect sex differences in the interpretation of ambiguous cues.

Our findings support the ambiguity logic. Men and women did not differ in ratings of the woman target's sexual interest when verbal cues were used, the condition our findings indicate produced the highest perceptions of sexual interest. In the nonverbal cues condition, which was rated as reflecting less sexual interest, a sex difference emerged.

It is possible that sex differences emerge in interactions due to misperceptions of the intent of flirting behaviors. Henningsen (2004) found that there are multiple possible motivations individuals pursue while flirting and that men were more likely to interpret flirting behaviors as sexually motivated than were women. Flirting behaviors are inherently ambiguous (Grammar, Kruck, Juetter, & Fink, 2000). It is possible that women and men agree on what behaviors were flirting but disagree on the perceived motivation behind those flirting behaviors.

It is worth noting that a recent meta-analysis found no difference in perceptions of women's flirting during cross-sex interactions but did find differences in perceptions of sexuality (La France, Henningsen, Oates, & Shaw, 2009). In other words, individuals agreed flirting was going on but differed in interpreting its meaning.

Also consistent with the ambiguity explanation for sex differences in perceptions of flirting are findings regarding other settings in which multiple motives, including sexual interest, can be attributed to behaviors. For instance, Mongeau and his colleagues (Mongeau, Jacobsen, & Donnerstein, 2007; Mongeau, Serewicz, & Therrien, 2004) find that men are more likely to attribute the impetus for going on a first date to sexual motivations than are women. Like flirting, first dates have the potential to be motivated by a desire for sexual contact but also may be pursued for non-sexual reasons as well. Thus, first dates are also ambiguous in terms of the motivations behind the enacting behaviors.

Conclusions

Overall, our results are consistent with the predictions that the type of cue employed to examine sex differences in cross-sex interactions can influence findings in important ways. However, the cue usage hypothesis may provide an adequate explanation for all the results. Specifically, a cue usage explanation implies a sex difference for use of verbal cues as well as non-verbal cues, albeit in the opposite direction. An ambiguity explanation may better account for sex differences that emerge in this and other studies. Of course, future studies would need to employ verbal flirting cues that do not differ in explicitness from the nonverbal cues being employed to provide a clear test. Because the ambiguity explanation was developed post hoc, future research testing how cue explicitness influences perceptions in cross-sex interactions is needed.

Appendix: Nonverbal and verbal flirting scripts

Nonverbal scenario.

Jenny: (making eye contact with Mike and smiling) Dr. Zorba really seemed to like your speech the other day.

Mike: Really, that's good to hear, because I threw it together really quickly.

Jenny: (leaning forward in her desk) His comments seemed to be pretty positive.

Mike: Well, thanks.

Jenny: Did you go anywhere over spring break?

Mike: Yeah. I went to Mexico with some of my friends.

Jenny: (touching Mike's hand) That's cool.

Verbal scenario.

Jenny: (crossing her arms) You know, your speech the other day was really good.

Mike: Really, that's good to hear, because I threw it together really quickly.

Jenny: (crossing her legs) I couldn't tell. Of course, I was busy watching you. You've got a great smile.

Mike: Is that so? Well, thanks. Did you do anything over Spring break?

Jenny: No. I was going to but I just broke up with my girlfriend and didn't feel like partying. So, did you go anywhere?

Mike: Yeah. I went to Mexico with some of my friends.

Jenny: (uncrossing her arms) That's cool. Any interesting tan lines?

References

- Abbey, A. (1982). Sex differences in attributions for friendly behavior: Do males misperceive female's friendliness? *Journal of Personality and Social Psychology*, *42*, 830-838.
- Abbey, A. (1987). Misperceptions of friendly behavior as sexual interest: A survey of naturally occurring incidents. *Psychology of Women Quarterly*, *11*, 173-194.
- Abbey, A., Cozzarelli, C., McLaughlin, K., & Harnish, J. (1987). The effect of clothing and dyad sex composition on perceptions of sexual intent: Do women evaluate these cues differently. *Journal of Applied Social Psychology*, *17*, 108-126.
- Abbey, A., & Harnish, R. (1995). Perception of sexual intent: The role of gender, alcohol consumption and rape supportive attitudes. *Sex Roles*, *32*, 297-313.
- Abbey, A. & Melby, C. (1986). The effects of nonverbal cues on gender differences in perceptions of sexual intent. *Sex Roles*, *15*, 283-298.
- Abbey, A., Zawacki, T., & McAuslan, P. (2000). Alcohol's effects on sexual perception. *Journal of Studies on Alcohol*, *61*, 688-697.
- Abrahams, M. F. (1994). Perceiving flirtatious communication: An exploration of the perceptual dimensions underlying judgments of flirtatiousness. *Journal of Sex Research*, *31*, 282-292.
- de Weerth, C. & Kalma, A. (1995). Gender differences in awareness of courtship initiation tactics. *Sex Roles*, *32*, 717-734.
- Fisher, T. D., & Walters, A. S. (2003). Variables in addition to gender that help to explain differences in perceived sexual interest. *Psychology of Men & Masculinity*, *4*, 154-162.
- Grammar, K., Kruck, K., Juette, A., & Fink, B. (2000). Non-verbal behavior as courtship signal: The role of control and choice in selecting partners. *Evolution and Human Behavior*, *21*, 371-390.
- Greer, A. E., & Buss, D. M. (1994). Tactics for promoting sexual encounters. *The Journal of Sex Research*, *31*, 185-201.
- Harnish, R., Abbey, A., & Debono, D. (1990). Toward an understanding of "the sex game": The effects of gender and self monitoring on perceptions of sexuality and likability in initial interactions. *Journal of Applied Social Psychology*, *20*, 1333-1344.
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology*, *78*, 81-91.
- Henningsen, D. D. (2004). Flirting with Meaning: Examining miscommunication in flirting interactions. *Sex Roles*, *50*, 481-489.
- Henningsen, D. D., Henningsen, M. L. M., & Valde, K. (2006). Gender differences in perceptions of women's sexual interest during cross-sex interactions: An application and extension of cognitive valence theory. *Sex Roles*, *54*, 821-829.
- Houser, M. L., Horan, S. M., & Furler, L. A. (2007). Predicting relational outcomes: An investigation of thin slice judgments in speed dating. *Human Communication*, *10*, 69-81.
- Jacque-Tiura, A. J., Abbey, A., Parkhill, M. R., & Zawacki, T., (2007). Why do some men misperceive women's intentions more frequently than others do? An

- application of the confluence model. *Personality and Social Psychology Bulletin*, 33, 1467-1480.
- Johnson, C., Stockdale, M., & Saal, F. (1991). Persistence of men's misperceptions of friendly cues across a variety of interpersonal encounters. *Psychology of Women Quarterly*, 15, 463-475.
- Koepfel, L.B., Montagne-Miller, Y., O'Hair, D., & Cody, M.J. (1993). Friendly? Flirting? Wrong? In P.J. Kalbflied, (Ed.) *Interpersonal communication: Evolving interpersonal relationships* (pp. 13-32). Hillsdale, NJ: Lawrence Erlbaum Assoc.
- Koukounas, E. & Letch, N. M. (2001). Psychological correlates of perception of sexual intent in women. *The Journal of Social Psychology*, 141, 443-456.
- La France, B. H., Henningsen, D. D., Oates, A., & Shaw, C. M. (2009). Social sexual interactions: Meta-analyses of sex differences in perceptions of flirtatiousness, seductiveness, and promiscuousness. *Communication Monographs*, 76, 263-285.
- Levesque, M. J., Nave, C. S., & Lowe, C. A. (2006). Toward understanding gender differences in inferring sexual interest. *Psychology of Women Quarterly*, 30, 150-158.
- Major, B. & Heslin, R. (1982). Perceptions of cross-sex and same-sex nonreciprocal touch: It is better to give than to receive. *Journal of Nonverbal Behavior*, 6, 148-162.
- Mongeau, P. M., Jacobsen, J., & Donnerstein, C. (2007). Defining dates and first date goals: Generalizing from undergraduates to single adults. *Communication Research*, 34, 526-547.
- Mongeau, P. M., Serewicz, M. C. M., & Therrien, L. F. (2004). Goals for cross-sex first dates: Identification, measurement, and the influence of contextual factors. *Communication Monographs*, 71, 121-144.
- Moore, M. M. (1985). Nonverbal courtship patterns in women: Context and consequences. *Ethology and Sociobiology*, 6, 237-247.
- Muehlenhard, C.L., Koralewski, M.A., Andrews, S.L., & Burdick, C.A. (1986). Verbal and nonverbal cues that convey interest in dating: Two studies. *Behavior Therapy*, 17, 404-419.
- Perper, T., & Weis, D. L. (1987). Proceptive and rejective strategies of U.S. and Canadian college women. *The Journal of Sex Research*, 23, 455-480.
- Pryor, J. B., DeSouza, E. R., Fitness, J., Hutz, C., Kumpf, M., Lubbert, K., Pesonen, O., & Wangerber, M. (1997). Gender differences in the interpretation of social-sexual behavior: A cross-cultural perspective on sexual harassment. *Journal of Cross Cultural Psychology*, 28, 509-534.
- Shotland, R.L. & Craig, J.M. (1988). Can men and women differentiate between friendly and sexually interested behavior? *Social Psychology Quarterly*, 51, 66-73.
- Sigal, J., Gibbs, M., Adams, B. & Derfler, R. (1988). The effects of romantic and nonromantic films on perceptions of female friendly and seductive behavior. *Sex Roles*, 19, 545-554.
- Solomon, D. H. & Miller Williams, M. L. (1997a). Perceptions of social-sexual communication at work: The effects of message, situation, and observer characteristics on judgments of sexual harassment. *Journal of Applied Communication Research*, 25, 196-216.

- Solomon, D. H. & Miller Williams, M. L. (1997b). Perceptions of social-sexual communication at work. *Management Communication Quarterly*, *11*, 147-184.
- Whitty, M. T. (2004). Cyber-Flirting: An examination of men's and women's flirting behaviour both offline and on the internet. *Behaviour Change*, *21*, 115-126.