Flirting with threat: Social identity and the perils of the female communality prescription

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A B S T R A C T

Women face a unique pressure to satisfy agentic/competence goals simultaneously with communal/likeability goals and are thus held to a different standard of “niceness.” We examined whether women under stereotype threat—a phenomenon in which socially-devalued group members experience underperformance due to fear of confirming negative stereotypes (e.g., Steele, 1997)—might succumb to a communal/likeability prescription to engage in instrumental flirtation, or non-sexual flirtation-consistent behaviors, despite findings that women under threat disavowed flirtation in self-reports. In the current study, women’s verbal flirtation-consistent behaviors were similarly low under threat and no-threat interview conditions. However, women under threat exhibited increased nonverbal flirtation-consistent behaviors (Experiment 1), likely indicating a conflict between idealized and actual behaviors. Furthermore, men perceived women under threat as signaling increased sexual intent (Experiment 2), a disconcerting real-world ramification. We situate data in theorizing based on identity bifurcation, the Integrated Process Model of Stereotype Threat, and Self-Discordance theory.

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Women are often faced with a unique socially prescribed challenge of satisfying agentic and communal goals concurrently—behaving competently and assertively while maintaining and promoting likeability; especially in academic domains, the workplace, and other professional settings that have been traditionally male-dominated (e.g., Eagly & Karau, 2002; Kray & Locke, 2008). Women who act more agentically (autonomous and self-focused) than communally (relational and other-focused) to adhere to masculine norms are susceptible to experiencing gender backlash (Rudman & Glick, 2001) or being perceived as competent but also as socially deficient or gender deviate (see Prentice & Trail, 2010); a predicament associated with workplace discrimination (Rudman & Fairchild, 2004). In sum, women are held to a higher standard of niceness, causing women to suffer repercussions when they violate the “female communality prescription” (Rudman & Glick, 2001, p. 744).

To achieve likeability (and possibly to avoid gender backlash), women are encouraged to employ non-sexually motivated flirtation behaviors. This expectation is simultaneously “in the air” (Chan-Serafin, Bradley, Brief, & Watkins, 2005) and broadcasted in the media, such as in a recent Forbes.com article, which urged women to “flirt their way to the top” (Goudreau, 2010). This use of flirtation for non-sexual purposes falls under a rubric of instrumental flirtation despite sharing behaviors associated with sexual flirtation (see Chan-Serafin et al., 2005). We therefore refer to instrumental flirtation behaviors as flirtation-consistent, which are comprised of both verbal (e.g., offering task-irrelevant personal information) and nonverbal behaviors that encompass facial (e.g., smiling) and bodily (e.g., leaning forward) behaviors (Cunningham & Barbee, 2008; Egland, Spitzberg, & Zormeier, 1996; Moore, 2002). Instrumental flirtation is orthogonal to romantic attraction (Lee & Guerrero, 2001) and to sexual behavior (Yarab, Allgeier, & Sensibaugh, 1999) but it can lead to erroneous interpretation, by men, as signaling sexual intent, thereby placing women at risk for unsolicited sexual attention (e.g., Abbey, 1982; Henningson, 2004).

In mathematics, a domain in which women are underrepresented (Murphy, Steele, & Cross, 2007), women have been shown to disavow flirtatiousness explicitly (Pronin, Steele, & Ross, 2004). This disavowal has been linked to stereotype threat—a phenomenon in which members of socially devalued groups experience situational underperformance due to fear of confirming negative stereotypes (e.g., Schmader, Johns, & Forbes, 2008; Steele, 1997). Specifically, Pronin et al.’s (2004) showed that under stereotype threat, women experienced identity bifurcation—to maintain high math identification, women disavowed feminine characteristics linked negatively to math achievement, which included flirtatiousness (e.g., versus nurturance). The rhetorical underpinning was situated in dissonance reduction (Heider, 1958; Nosek, Banaji, & Greenwald, 2002), as articulated in Schmader et al.’s (2008) Integrated Process model: Women disavow feminine characteristics to restore equilibrium between high math and
gender identification in a culture that often embeds negative associations between these identities. Thus, it is possible that women under threat would refrain from instrumental flirtation and be protected against its harmful ramifications.

In the absence of actual versus self-reported behavioral data, however, the question of whether women would exhibit increased flirtation-consistent behaviors under threat, and, if so, which type (verbal versus nonverbal) remains open. In a society in which agentic/masculine behavior is perceived to be, in large part, a negation of communal/feminine behavior (see Prentice & Carranza, 2002), women identified with success in male-dominated domains are likely to disavow flirtation consciously or verbally (Prinin et al., 2004). However, given that women under threat experience heightened salience of female category activation (Inzlicht & Ben-Zeev, 2000), they are simultaneously predicted to exhibit an increased concomitant automatic activation of prescriptive and stereotypical feminine behaviors that are more difficult to monitor and to control (a la Dovidio, Kawakami, & Gaertner, 2002) (also see Ekman, 2003). Thus, nonverbal behaviors, in the current context, are thought to indicate relatively more automatic than conscious activation of female category membership and its associated feminine prescribed behaviors, including instrumental flirtation.

Specifically, we predicted that stereotype threat (herein, an interview conducted by a man and introduced as assessing quantitative reasoning) would cause heightened non-verbal (but not verbal) flirtation-consistent behaviors beyond baseline levels, which would be discerned from a no-threat context (the same interview; introduced as placing an emphasis on psychological processes). At baseline—a social context that is not associated with reminders of negative stereotypes, backlash, and discrimination—women are predicted to respond to interview questions intellectually, as well as to engage in “normal” ecological levels of instrumental flirtation, to facilitate social ease without being overly sexual (Chan-Serfet et al., 2005). In both conditions, verbal flirtation-consistent behavior was expected to be low given the academic/non-romantic interview context.

The current study was designed to fill an important void by examining whether: (a) women would exhibit increased nonverbal (but not verbal) flirtation-consistent behaviors under stereotype threat as compared to no-threat controls, implying a heightened intention automatic activation of prescriptive and stereotypical feminine behaviors that are more difficult to monitor and to control (a la Dovidio, Kawakami, & Gaertner, 2002); (b) women under stereotype threat would be at risk of being viewed through a sexual lens (Experiment 2).

**Experiment 1**

Would women under threat show increased nonverbal (but not verbal) flirtation-consistent behaviors than under no-threat? To create an ecologically rich context, all women completed an identical mock graduate school interview with a male confederate.

**Method**

**Participants**

Participants were 28 undergraduate women from San Francisco State University. Women were pre-screened for pursuing graduate careers in research psychology and high identification with quantitative reasoning by whether they scored significantly above the midpoint on a measure adapted from Aronson et al. (1999), which also contained items from the Math Identification Questionnaire (Brown & Josephs, 2000) (e.g., “My math abilities are very important to me”). All participants received course credit.

**Design**

We employed a 2×3 mixed-samples design. Stereotype threat (threat versus no-threat) was the between-subjects factor and type of flirtation-consistent behavior, or flirtation type (nonverbal facial, nonverbal bodily, and verbal), was the repeated measure factor. The main dependent variable was mean frequency of six composite behaviors in each flirtation type condition as coded by two independent raters (see below).

**Procedure**

All women underwent a videotaped interview conducted by a male confederate blind to experimental conditions. Prior to the interview, a female experimenter assigned women randomly to threat or no-threat conditions. Women were informed that the interview was designed specifically to measure quantitative reasoning (threat) or to measure psychological processes and was gender fair (no-threat) (for removing threat by making gender non-relevant, see Steele, Spencer, & Aronson, 2002). The interview consisted of six questions (e.g., “There’s an old English saying, ‘A stitch in time saves nine.’ What do you think that saying means?”), followed by a demographics questionnaire.

**Flirtation coding**

We compiled the six most frequent verbal, nonverbal facial, and nonverbal bodily flirtation behaviors (e.g., Cunningham & Barbee, 2008; Egland et al., 1996; Moore, 2002), resulting in 18 behaviors. Two coders (male and female), blind to experimental conditions, were instructed to tally: (a) nonverbal facial behaviors (smiling, downward glances, nods, raised eyebrows, touching/tossing one’s hair, touching one’s face); (b) nonverbal bodily behaviors (adjusting/touching clothing, adjusting/touching peripheral accessories, head-titles, leaning forward, using animated hand gestures, crossing one’s legs); and finally (c) verbal behaviors (laughing, using humor, complimenting the interviewer, asking personal questions, offering irrelevant personal information, soliciting help). Raters were given a tutorial on behavior coding by a consultant specializing in interview validity. They watched each interview and provided independent tallies yielding the following reliabilities: facial (α = .93), bodily (α = .89), and verbal (α = .93). If tallies differed on a given interview, raters were instructed to re-watch it and to reach a consensus.

**Results and discussion**

**Threat by flirtation: nonverbal versus verbal flirtation behaviors**

We conducted a 2 (stereotype threat: threat versus no-threat)×3 (flirtation type: nonverbal facial, nonverbal bodily, and verbal) mixed-samples ANOVA. The dependent variable was mean frequency of six composite behaviors for each flirtation type. As predicted, there was a significant interaction between stereotype threat and flirtation type, F(2,52) = 4.76, p = .013, η² = .155. Under threat, mean frequency of nonverbal facial flirtation behaviors (M = 32.85, SE = 3.63) was significantly higher than under no-threat (M = 20.73, SE = 1.76), t(26) = −3.14, p = .004. Mean frequency of nonverbal bodily behaviors was also significantly higher under threat (M = 17.00, SE = 1.89) than no-threat (M = 10.07, τE = 1.81), t(26) = −2.64, p = .014. Importantly, there were no significant differences in mean verbal flirtation behavior frequencies across conditions, t(26) = .066, p = .948. See Fig. 1. There were no significant condition differences between interview lengths (in minutes): threat (M = 4.87, SE = .22) and no-threat (M = 4.75, SE = .23), p > .73.

**Flirtation versus anxiety**

It is possible that tallies of flirtation-consistent behaviors were more indicative of perceived anxiety than flirtation (Ben-Zeev, Fein, & Inzlicht, 2005). Thus, two additional raters (male and female) provided subjective perceptions of overall flirtation (α = .991) and overall anxiety (α = .838) for each interviewee on a 0–5 Likert-type
scale, with 0 indicating no flirtation/anxiety whatsoever and 5 indicating extremely high flirtation/anxiety. Tallies of flirtation-consistent behaviors were predicted by rater-perceived flirtation, $\beta = .825$, $t(13) = 5.265$, $p < .001$, but not rater-perceived anxiety, $\beta = -.211$, $t(13) = -.777$, $p = .451$. Rater perceived flirtation and rater-perceived anxiety were inversely correlated, $r = -.419$, $p < .05$. Analyses were conducted on 25 interviewees (a tape consisting of 3 interviewees was corrupted).

**Manipulation check for threat effects**

To explore whether the present threat manipulation was appropriate to and effective in the current population, 24 undergraduate female controls were randomly assigned into similar threat and no-threat conditions, sans interview. Women were given 20 min to complete 25 items from the Ravens Advanced Progressive Matrices (see Brown & Day, 2006). As predicted, performance was significantly worse under threat ($M = 13.33$, $SE = 1.12$) than no-threat, ($M = 19.27$, $SE = .95$), $F(1, 22) = 16.46$, $p = .001$, $\eta^2_p = .428$.

**Experiment 2**

In Experiment 2, we selected eight videotaped interviewees from Experiment 1, a priori, based on perceived flirtation and physical attractiveness ratings, using the previous 0–5 scale (we asked participants/observers in Experiment 2 to use the same rating scale to maintain conceptual consistency). Importantly, we compared the independent raters’ averaged flirtation score to a mean flirtation score from a control group of 31 (15 female; 16 male) participants. We selected four threat videos that received a lower mean flirtation score from controls ($M = 2.44$, $SE = .21$) than from the independent raters ($M = 3.91$), $t(30) = -7.189$, $p < .001$, and four no-threat videos that received a mean flirtation score from controls ($M = 1.87$, $SE = .20$) that was similar to the independent raters’ ($M = 1.93$), $t(30) = -3.03$, $p = .05$, in an attempt to reduce the likelihood of committing a Type I error.

We expected that men versus women would perceive all interviewees as exhibiting higher levels of sexual intent (Henningsen, 2004). We inquired, however, whether men, but not women, would attribute higher levels of sexual intent to female interviewees under threat than no-threat counterparts, given findings from Experiment 1; implying a disconcerting real-world ramification.

**Method**

**Participants**

Fifty-eight (29 male and 29 female) undergraduates at San Francisco State University participated in exchange for course credit.

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1 An independent group of 18 participants rated threat interviewees ($M = 2.68$, $SE = .22$) as similarly attractive to no-threat interviewees ($M = 2.58$, $SE = .23$), $t(6) = .765$, $p = .478$.

2 There was no significant relationship between males’ ratings of anxiety and of sexual intent in threat, $r = -.099$, $p = .458$ nor in no-threat, $r = -.033$, $p = .806$.

**Design**

The experiment was a 2 (interviewee condition: threat versus no-threat)×2 (observer gender: female or male) mixed-models design.

**Procedure**

Participants viewed muted two-minute clips from the eight interviewees in random order. Interviewees’ eyes were pixelated to preserve confidentiality. Participants rated each interviewee on sexual intent (“This person was sexually interested in the interviewer”), among other filler items, including anxiety, on a 0–5 Likert-type scale, with 0 indicating strongly disagree and 5 indicating strongly agree, under the guise of a study on person perception in interviews. Finally, participants filled out demographics.

**Results and discussion**

**Perceived sexual intent by threat as a function of gender**

We conducted a 2 (interviewee condition: threat versus no-threat)×2 (observer gender: female or male) mixed-models ANOVA to assess whether male and female observers would perceive differential levels of sexual intent from interviewee condition. As predicted, male observers overall perceived significantly more sexual intent ($M = 1.54$, $SE = .18$) than female observers ($M = .73$, $SE = .18$), $F(1, 56) = 9.63$, $p = .003$, $\eta^2_p = .147$. There was a significant interaction between observers’ gender and interviewee condition, $F(1,56) = 4.03$, $p = .05$, $\eta^2_p = .067$, such that males perceived higher levels of sexual intent from interviewees under threat ($M = 1.78$, $SE = .25$) than from no-threat ($M = 1.29$, $SE = .20$), $t(28) = 2.42$, $p = .05$; females’ ratings did not differ by interviewee condition ($M = .74$, $SE = .17$ for threat; $M = .72$, $SE = .17$ for no-threat), $t(28) = .14$, $p = .89$ (see Fig. 2).

Men perceived interviewees under threat versus no-threat as displaying higher levels of sexual intent, most likely because the former evinced higher levels of nonverbal flirtation-consistent behaviors ($M = 69.25$, $SE = 3.64$) than the latter ($M = 37.5$, $SE = 3.79$), $t(6) = 6.038$, $p < .01$, reflecting amplified ratings under threat in Experiment 1. This result points to a potentially vicious cycle in which threatening environments elicit higher nonverbal flirtation, viewed by men via a sexual lens, which then decrease the intellectual safety of male-dominated environments further.

**General discussion**

The heightened disassociation between verbal versus nonverbal flirtation-consistent behaviors under threat is consistent with women’s self-reports about disavowing flirtatiousness consciously (Pronin et al., 2004) but illuminates actual and more implicit...
behaviors that deviate from self-reports (see Dovidio et al., 2002). Verbal behaviors might reflect conscious and therefore idealized self-conceptions, consistent with Higgins’ (1987) Self-Discrepancy Theory. It is possible that under threat, women’s (a) ideal self, does not incorporate the use of flirtation; but (b) ought self, simultaneously encourages less explicit nonverbal flirtation-consistent behaviors, reflecting sociocultural norms that place an onus on women (versus men) to be communal/likeable (Rudman &slick, 2001).

Women’s quest for upwards mobility might necessitate following gender norms, even if nonverbally, because women have most likely learned to adopt an interdependent (versus independent) model of agency (Stephens, Markus, & Townsend, 2007). Intergender requires social tuning (e.g., Sinclair, Huntsinger, Skorinko, & Hardin, 2005)—a tendency to behave according to what one believes an interaction partner expects and values, engaging in a perceived shared reality. Our data imply that a woman at the vanguard of her group in a male-dominated field is faced with a conundrum: Her ideal/conscious self disavows flirtatiousness as non-agentic and therefore as negatively linked to success (Pronin et al., 2004), but heightened gender activation likely leads her to engage in implicit social tuning and resultant amplified nonverbal flirtation-consistent behavior. In turn, men seem to perceive women’s nonverbal behavior to indicate heightened sexual intent. This perception might apply to sexist men, especially, who perceive women’s nonverbal behavior to indicate heightened sexual attractiveness (e.g., Sinclair, Huntsinger, Skorinko, & Hardin, 2005) and reification (pp. 259–259). New York, NY: Oxford University Press.


