INTERPRETATION OF NONVERBAL CUES WHILE UNDER THE INFLUENCE OF ALCOHOL: AN EXPLANATION FOR ALCOHOL’S ROLE IN RISKY SEXUAL BEHAVIOR ON A COLLEGE CAMPUS

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Abstract

This experiment investigated the effects of alcohol consumption on perception of nonverbal behavior. College students recruited from local bars rated images of other-sex confederates displaying a variety of poses for dominance and sexiness. Breathalyzer tests were administered to participants to measure their blood alcohol content (BAC). Men’s ratings of dominance and sexiness of women were positively correlated in both the low and high drink conditions. For women, dominance and sexiness ratings of men were positively correlated in only the high drink condition. Additionally, men in the high drink condition rated female confederates as more sexy than did men in the low drink condition, whereas women in the high drink condition rated male confederates as less sexy than women in the low drink condition. These results suggested that alcohol differentially affects men’s and women’s perceptions of nonverbal behaviors displayed by the other sex.
Introduction

There are several explanations for why college students engage in risky sexual behavior, or “hook-up,” after a night of drinking. Alcohol’s effects include the lowering of inhibitions and changes in perception and cognition. Alcohol may also influence the interpretation of nonverbal cues. Little direct evidence exists connecting alcohol and risky sexual behavior, despite its reputation. How is it that, “girls get prettier at closing time”? Men perceive women as more attractive and more sexually available after women have been drinking (Pennebaker, 1979; Corcoran & Thomas, 1991). Men’s perceptions of women’s nonverbal cues are not entirely accurate, for misperception of nonverbal cues occurs when men are sober. For example, men they perceive a female’s friendliness and dominance as seductive (Henley, 1977; Abbey, 1982; Abbey & Melby, 1986). Perhaps men misinterpret women’s other nonverbal cues as well, especially when under the influence of alcohol. In the present study, we examined how alcohol influences the misperception of men and women’s nonverbal cues, and may thus be an explanation for college students’ tendencies to engage in risky sexual behavior.

Alcohol lowers inhibitions, thus increasing relaxation, mood, courage, and social ease (Steele & Josephs, 1990; Crowe & George, 1989). The consumption of alcohol in social settings such as bars is associated with increased anticipation of more positive social outcomes such as having fun, and easier, more flowing conversation (Crowe & George, 1989). Despite evidence suggesting that physiological indices of sexual arousal steadily decrease as blood alcohol increases, alcohol consumption in social settings is also associated with better sex (Farkas & Rosen, 1976; Crowe & George, 1989). However, alcohol actually impairs physical abilities, such as coordination and reaction time, as well as perceptual and cognitive capacities such as risk assessment. In an experiment designed to study risk assessment while under the influence of alcohol, MacDonald et al. (1995) questioned sober and intoxicated participants about their intentions and fears regarding drunk driving. Intoxicated participants were significantly less negative about drunk driving than sober participants. These results confirm that alcohol decreases cognitive capacities, such that assessment of risky behavior is severely altered.
Steele and Josephs (1990) view the effect alcohol has on social and behavioral abilities as an interaction between the types of cues communicated to the intoxicated individual and the impairment alcohol causes. This impairment is referred to as “myopia”, or “a state of short-sightedness in which superficially understood, immediate aspects of experience have a disproportionate influence on behavior and emotion” (922). Hence, Steele and Josephs (1990) claim that alcohol myopia influences an intoxicated individual’s perceptual, behavioral, and social behavior. For example, women who are misperceived in situations where alcohol is consumed are more likely to experience sexual assault (Abbey at al., 1996). Since men perceive alcohol as a sexual cue, they are more likely to misinterpret the nonverbal cues of a woman who is consuming alcohol as indicators of sexual intent, thus increasing the likelihood of sexual assault (Abbey at al., 1996). Furthermore, a woman who has been drinking is more likely to be incognizant of the man’s misperceptions of her nonverbal cues due to the perceptual and cognitive impairments caused by alcohol (Abbey et al., 1996). One woman in Abbey et al.’s (1996) study claimed: “…had I been sober, I think I would have seen his intentions sooner and been able to change the situation” (163). Taken together, these results suggest that alcohol consumption impairs women’s ability to perceive risk of sexual assault because of both the pharmacological and the expectancy effects of alcohol (Abbey et al. 1996).

Men also mistakenly interpret women’s friendliness as an indication of sexual interest (Abbey, 1982). In one study, female confederates engaged in a friendly conversation with male participants, who were subsequently asked to rate the female actors on seductiveness, flirtatiousness, and promiscuity (Abbey, 1982). Men perceived the female actors to be more seductive, promiscuous, and with more sexual intentions, whereas the female actors rated their behavior as simply being friendly. Abbey (1982) concluded that men are more likely than women to make sexual judgments and that they do in fact perceive women’s friendliness as seduction.

Shotland and Craig (1988) replicated Abbey’s (1982) findings that men perceive more situations as sexually oriented than do women. Taken together, these results suggest that men perceive a variety of nonverbal cues as stronger indicators of women’s sexual interest than the women intended. Approximately two-thirds of college women report experiencing a situation in which a man with whom they were socializing and consuming alcohol misinterpreted their sexual interest (Abbey, 1987 as cited in Abbey et al., 1996).
Research suggests that when alcohol is not a factor, men attribute more sexual meaning to mixed-sex interactions than do women. In one study, male and female participants were asked to rate photographs of mixed-sex dyads who displayed nonverbal cues of sexual intent, such as increased interpersonal distance, fixated eye contact, and initiation of touch (Abbey & Melby, 1986). Abbey and Melby (1986) discovered that men generally rated women as more seductive, sexy, and promiscuous than women rated men. Women are thus more often judged in terms of their sexiness or seductiveness than are men, and men, with a minimum of nonverbal cues expressing sexual intent, tend to see more sexuality in women than women do in both sexes (Abbey and Melby, 1986).

In a study designed to evaluate the relationship between perceived sexual intent and alcohol consumption, Corcoran and Thomas (1991) created story narratives about a date between two college students (one male, one female), in which the amount and type of beverage consumed was varied. Two hundred eighty-five undergraduate students (165 men, 123 women) were asked to rate the different scenarios in terms of attractiveness, intoxication levels of the two story members, likelihood of sexual intercourse between the two members, and how likely each character in the story was to initiate sexual intercourse. The results of this study proposed that men perceive women to be more sexually available and more likely to engage in sexual intercourse when they are drinking than when they are not. Additionally, men were also perceived to be more likely than women to initiate sexual intercourse across all drinking conditions, whereas women were more likely to initiate sexual intercourse only when they are consuming alcohol.

Men and women are interpreted differently when they display the same nonverbal cues, and in particular, dominance cues. Nonverbal gestures such as touching, standing over a sitting person, invading personal space, and displaying expansive postures such as legs open and wide knees are rated by observers as nonverbal cues for dominance (Burgoon et al., 1989; Hall, 1984; Schwartz, 1982; Henley & Harmon, 1985). More specifically, men perceive women as seductive when they display such dominance cues, whereas men are perceived as dominant (Henley, 1977). Henley and Harmon (1985) further tested this hypothesis, claiming that women would be more likely to perceive men as dominant than would men, and that men would be more likely to interpret a dominant woman as sexual than would women. Participants were presented with slides of models displaying certain dominance gestures, such as standing over a sitting
person, touching, pointing, and invading personal space. The participants were subsequently asked to rate the models in terms of sexiness and dominance. The results showed that female confederates displaying dominance gestures received higher ratings of sexuality than did male confederates, whereas men displaying dominant gestures received higher ratings of dominance than did women.

Little to no empirical evidence exists connecting alcohol consumption, the interpretation of nonverbal dominance cues, and risky sexual behavior, which is the goal of the present study. In order to replicate and extend previous findings, the main predictions for this study are that men, when displaying dominance gestures (standing over a person, touching a person, and legs not-crossed) and regardless of the rater’s intoxication level, will be perceived by members of the opposite sex as more dominant than women displaying the same dominance cues (Henley, 1977; Henley and Harmon, 1985). Furthermore, female confederates, when displaying dominance cues and again regardless of the rater’s level of intoxication, will be perceived by members of the opposite sex as sexier than male confederates displaying the same cues (Henley, 1977; Abbey, 1982; Shotland and Craig, 1988; Abbey and Melby, 1986). These findings will be used as manipulation checks, such that they will first confirm that the independent variables measured dominance and submissiveness, and will secondly confirm the validity of the phenomenon that men and women are perceived differently when displaying the same nonverbal cues.

We additionally hypothesize that the impairing effects of alcohol will dramatically affect ratings of nonverbal cues, such that men with higher blood alcohol content (BAC) levels will increasingly rate all female confederates as sexier, regardless of pose (Corcoran and Thomas, 1991). Men with higher BAC levels are expected to rate dominant women as sexier than men with lower BAC levels (Corcoran and Thomas, 1991; Abbey et al., 1996). Female participants with higher BAC levels are predicted to rate male confederates as less dominant than female participants who have consumed less alcohol (Corcoran and Thomas, 1991; MacDonald et al., 1995; Abbey et al., 1996). Women who have higher BAC levels are not expected to significantly differ in their ratings of dominant and submissive men, whereas women who have lower BAC levels are expected to rate men in dominant poses as more dominant and men in submissive poses as more submissive (Corcoran and Thomas, 1991; Abbey et al., 1996). Additionally, male participants are expected to rate women who are holding alcoholic drinks as sexier than female
confederates who are not holding an alcoholic drink. Again, higher BAC levels are expected to increase ratings of sexiness in this condition.

Method

Participants

One hundred twenty-one students (61 males, 62 females) from a small liberal arts college in the Northeast were recruited as they entered local bars to participate in a study about “Reading People.”

Materials

Two Apple laptop computers were downloaded with black and white images of students from another liberal arts college in the Northeast who were displaying various nonverbal gestures. The poses of the students created 12 different images, including: a male confederate standing over a sitting female confederate, a female confederate standing over a sitting male confederate, a female confederate touching a male confederate on the shoulder, a male confederate touching a female confederate on the shoulder, a solo female confederate with open legs, a solo female confederate with crossed legs, a solo male confederate with open legs, a solo male confederate with crossed legs, a solo standing male confederate holding an alcoholic beverage, a solo standing male confederate, a solo female confederate holding an alcoholic beverage, and a solo standing female confederate.

A Hitachi notebook computer was also used to enter the students’ names who had signed the informed consent form issued earlier in the night into an Excel spreadsheet. Two Breathalyzers on loan from the local police department were utilized to determine the participants’ BAC levels. The manager of the coffee shop remained at the shop after closing time and the experimenters had access to the telephone in case of possible dilemmas.
Procedure

Since signed consent was required before participants had consumed any alcohol, potential participants were asked if they would like to partake in a study about “Reading People” as they were entering any of the three bars in the center of the college town. Interested students were then asked to sign a consent form which included information about a confidential Breathalyzer test, and were told that the experiment was being held in a coffee shop, located on the same street as the three bars, later that evening. Participants were informed that their signed consent did not obligate them to participate in the study and that if they wanted to participate, they were to come to the coffee shop to perform the task before they went home for the night. A sign stating “Free Food for Your Participation” was hung in the coffee shop to as a reminder to the students.

Inside the coffee shop, experimenters set up four stations: check-in, computer test, Breathalyzer, and check-out. Any student who signed a consent form before entering the bar was eligible to participate. The consent form granted the experimenter the permission to conduct the experiment and to administer a Breathalyzer test. Each name was entered into the Excel spreadsheet and was alphabetized and assigned a random number to ensure confidentiality. As participants entered the coffee shop, their names were verified at the check-in station where the Hitachi notebook with the Excel spreadsheet was consulted to verify that they had signed a consent form. This spreadsheet was used to facilitate the process of determining who and who had not signed a consent form. If they did not fill out a consent form earlier in the evening, they were not permitted to participate in the experiment. A second experimenter entered the gender and randomly assigned number of the participant in one of the two laptop computers downloaded with the experimental program. Students then viewed the black and white images on the computer screen.

At the computer stations, each participant viewed eight of the possible 12 images, and rated each one three times. Male participants rated only female confederates and female participants rated only male confederates. Images were rated for dominance, sexiness, and intelligence (a distracter) on a one to five scale. A rating of one indicated that the confederate was submissive, unsexy, or unintelligent, whereas a rating of five indicated dominance, sexiness, or intelligence. Participants saw each dyad photo (male standing over a seated female, female standing over a seated male, male touching a female, female touching
a male), and rated the member of the other sex. The order of the images was randomized such that every participant saw a different order of the poses they were to rate. To avoid confusion, an arrow pointed to the person that the participant was supposed to rate in the dyad photos. Participants also rated members of the other sex sitting with legs crossed, sitting with legs open, standing without a drink and standing with a drink. To avoid carry-over effects, different confederates were displayed in each picture. Participants rated all eight images for one attribute before the question and scale changed. The changing question was coupled with a screen fade-out, to alert participants of the change.

After completing the computer task, participants were administered a Breathalyzer test. Their BAC level and their randomly assigned number was recorded. At the check-out station, participants read the debriefing statement and received a voucher for a slice of pizza. If they wished to receive the results of the study, they added their name and campus mailing address to a mailing list.

Results

We predicted that alcohol consumption would alter men and women’s perceptions of nonverbal behavior displayed by the other sex. We also predicted that alcohol intoxication would affect perceptions of dominant and submissive positions differentially. Participants rated poses manipulated for dominance and submissiveness for both dominance and sexiness. We first analyzed their ratings of dominance to ensure that our manipulations of dominance and submissiveness were valid. We then analyzed each pose for perceptions of sexiness across the six poses. Finally, we evaluated ratings of sexiness within each scene.

Perceptions of Dominance

Participants were asked to rate the dominance portrayed in the poses on a scale of one to five. One independent variable involved alcohol consumption. There were forty-two participants out of 123 who registered a 0.00 on the Breathalyzer score constituting 34.1 % of our sample. Participants’ Breathalyzer scores were split into two groups based on a median split. Participants whose Breathalyzer scores were
from 0.00 - 0.02 were categorized as the low drinking condition and participants whose Breathalyzer scores were from 0.03 - 0.14 were categorized as the high drinking condition.

A 2 (Gender) X 2 (Breathalyzer Scores: low/high) X 3 (Scene: touch/be touched, stand/sit, sit open/sit cross-legged) X 2 (Pose: dominant/submissive) Analysis of Variance (ANOVA) with repeated measures on the last two factors was performed on participants’ ratings of dominance. The effect of pose was not significant, indicating that across the three scenes men and women did not rate the dominant poses significantly differently than the submissive poses, \( F(1, 119) = .712, p = .40 \), (Touch: \( M_S = 2.53 \) vs. 2.38, Stand: \( M_S = 2.78 \) vs. 2.72, Open legged: \( M_S = 2.84 \) vs. 3.23). A three-way interaction among scene, pose and gender, \( F(2, 238) = 11.33, p < .001 \). This indicates that the same pose conveyed a different message when displayed by a male or female confederate. For the means associated with this interaction, see Table 1. Because men and women viewed different pictures, we next analyzed ratings of dominance controlling for gender in order to determine if the poses manipulated dominance as intended.

For men, the effect of scene was marginally significant, \( F(2, 118) = 2.96, p = .056 \). Men rated open/crossed poses as reflecting the highest level of dominance (\( M = 3.03 \)). Men rated the sit/stand poses as the next most dominant (\( M = 2.94 \)). Men rated the be touch/touch poses as portraying the lowest levels of dominance (\( M = 2.76 \)). A main effect for pose was also revealed, \( F(1, 59) = 3.99, p < .05 \), indicating that across all scenes, dominant gestures were rated as more dominant by male participants than submissive gestures were (\( M_S = 3.00 \) vs. 2.82). However, there was also a pose X scene interaction, \( F(2, 118) = 16.08, p < .001 \). Consistent with predictions, in the touch/be touch scene, men rated the female confederate who was touching a male confederate (\( M = 3.13 \)) as more dominant than a female confederate who was being touched by a male confederate (\( M = 2.16 \)), \( F(1, 59) = 28.78, p < .001 \). In the sit/stand scene, men rated a female confederate standing over a seated male confederate (\( M = 3.13 \)) as more dominant than a female confederate seated next to a standing male confederate (\( M = 2.74 \)) at a level approaching significance, \( F(1, 59) = 3.58, p = .063 \). Inconsistent with predictions, men rated a female confederate seated cross-legged (\( M = 3.35 \)) as more dominant than a female confederate seated with her legs apart (\( M =2.64 \)) \( F(1, 59) = 9.14, p < .004 \). Thus, for men, the ratings of two of the three pose pairs were consistent with our manipulations of dominance.
For women, a main effect of scene was found, $F(2, 120) = 31.03, p < .001$, indicating that women rated scene pairs, across pose, as significantly different in respect to dominance. Women rated the open/crossed poses as displaying the highest levels of dominance ($M = 3.04$). Women rated the sit/stand poses as displaying the next highest level of dominance ($M = 2.56$). Women rated the be touch/touch poses as displaying the least level of dominance ($M = 2.16$).

A main effect of pose was also revealed, $F(1, 60) = 9.54, p < .003$. This main effect was not in the predicted direction, for women rated the intended submissive poses generally more dominant than the intended dominant poses ($M_s = 2.73$ vs. $2.44$). No other significant effects were found for women.

Female participants’ ratings of dominance were then analyzed on poses within each scene. Inconsistent with our manipulations, in the touch/be-touch scene women rated a male confederate being touched by a female confederate as more dominant than a male confederate touching a female confederate ($M_s = 2.37$ vs. $1.94$), $F(1, 60) = 7.22, p < .009$. In the sit/stand scene women’s ratings of a male confederate standing over a seated female confederate were not significantly different from their ratings of a male confederate seated next to a standing female confederate ($M_s = 2.47$ vs. $2.66$), $F(1, 60) = 1.24, p > .270$. In the cross/open scene women’s ratings of a man with crossed legs were more dominant than their ratings of men sitting with open legs ($M_s = 3.16$ vs. $2.91$) at a level that approached significance, $F(1, 60) = 3.67, p = .060$. For women, the pattern of the means indicated that they rated poses that were intended to be dominant as submissive and poses that were intended to be submissive as dominant.

Due to the fact that dominance manipulations were only partially effective for men and not at all effective for women, we chose not to analyze our intended dominant and submissive poses separately for ratings of sexiness. Because of the absence of an effect for pose, we treated the poses within all the scenes as a six-level pose variable.

**Perceptions of Sexiness**

Participants were asked to rate sexiness portrayed in the poses on a one to five scale. A 2 (Gender) x 2 (Breathalyzer Score: high/low) x 6 (Sit, Stand, Touch, Be Touch, Cross-Legged, Open-Legged) ANOVA repeated across the last measure was performed. As predicted, a main effect for gender
F (1, 119) = 6.05, p < .015, showed that men generally rated female confederates as more sexy (M = 2.75) than women rated male confederates (M = 2.52). The analysis also revealed a significant interaction between Breathalyzer score and gender, F (1, 119) = 4.87, p < .029. In the low drink condition (Breathalyzer scores of 0.00-0.02), men and women did not vary in their ratings of sexiness (Ms = 2.63 vs. 2.61). Whereas, in the high drink condition (Breathalyzer scores of 0.03-0.14), men rated female confederates as significantly more sexy than women rated male confederates, F (1, 57) = 10.34, p < .002 (Ms = 2.86 vs. 2.43), thus supporting our predictions (See Figure 1). This indicates that the more men drank, the more sexually attractive they found female confederates. In contrast, the opposite effect was shown for women; the more they drink, the less sexually attractive they found the male confederates.

To explore the relationship between perceived dominance and sexiness, we correlated participants’ ratings of dominance and sexiness controlling for gender and drink condition. A six level pose variable was calculated by averaging each participant’s ratings of sexiness across the six poses. For men in the low drink condition, it was found that the average of the ratings of sexiness in the six level pose variable were positively correlated with the average of the ratings of dominance, r(29) = .55, p < .001. This was also found for men in the high drink condition, r (28) = .60, p < .001. However, for women in the low drink condition, it was found that the average of the ratings of sexiness in the six level pose variable were not correlated, r (31) = .07, p = .710. Yet, this correlation was found to be significant for the women in the high drink condition, r (27) = .72, p < .001.

**Drink vs. No Drink Condition**

We analyzed this scene separately from the other three scenes because it did not directly manipulate dominance. We predicted that female confederates shown with a drink would be rated as sexier by men than female confederates without a drink. No effects were found.

**Intelligence**
A 2 x 2 x 6 ANOVA was performed on intelligence. No breath x gender interaction was revealed indicating that the sexiness results were unique and not simply due to an overall effect of alcohol, $F(1, 119) = 1.97$, $p = .163$.

**Discussion**

We predicted that alcohol would affect men’s and women’s perceptions of the other sex. Indeed, men’s and women’s ratings of the other sex were found to be different when comparing individuals with different levels of alcohol consumption. Both men and women who had drank less rated individuals of the other sex similarly on ratings of sexiness. Higher levels of alcohol intoxication increased men’s ratings of sexiness in women, however this effect of alcohol decreased women’s ratings of sexiness in men. Consistent with past research, men generally attributed female confederates with greater levels of sexiness than women attributed to the male confederates regardless of alcohol consumption, indicating that men view the world in more sexual terms than do women (Abbey, 1982; Shotland & Craig, 1988). These results also support findings that when men and women display the same nonverbal gestures, women are more readily associated with sexuality than are their male counterparts (Henley, 1977; Henley & Harmon, 1985). Men’s ratings of dominance were positively correlated with sexiness in both the low and high drink conditions.

Women’s ratings of male confederates’ dominance and sexiness were correlated in the high, but not the low, drink condition, indicating that perhaps dominance is more readily associated with sexiness in women than in men. In a previous study, when men and women rated pictures of male and female confederates, a positive correlation between ratings of dominance and sexiness was found for female confederates, but this relationship was not found for male confederates (Henley & Harmon, 1985). It is unclear why dominance and sexiness were more correlated for women who had drank more than for women who had drank less. However, it did seem that this correlation was increased with alcohol consumption, particularly for men. The correlation of men’s ratings of dominance and sexiness for female confederates was slightly stronger in the high drink condition than in the low drink condition.
We attempted to manipulate levels of dominance and submissiveness displayed in confederates’ poses of nonverbal dominance cues. However, the participants in our study did not perceive the intended manipulations. A variety of reasons could explain this methodological flaw. The use of images on computer a computer screen may not have been a very naturalistic way to measure the interpretation of dominance cues. In previous research, participants were randomly assigned to either observe or engage in a mixed-sex conversation (Abbey, 1982). Perhaps rating people who are naturally engaged in a conversation about everyday topics is a more valid measure of nonverbal cue interpretation than rating pictures on a computer screen. The fact that participants in the present study were asked to rate photographs of confederates displaying specific nonverbal dominance cues may have confounded our manipulation of dominance because the scenes in the photographs may have appeared to be very contrived to the raters. Furthermore, in Abbey’s (1982) study, the participants who were assigned to the conversing actor condition were not instructed to behave in a particular way, thus making the mixed-sex interaction appear more natural. The use of images with confederated displaying contrived nonverbal gestures may have appeared unnatural to the participants who were rating them.

An effect for pose was not revealed in the overall analysis for dominance. This could have been due to several factors. In order to reduce possible carry-over effects, we chose to portray a different confederate in each scene and pose. These confederates may have been viewed as unequally dominant simply due to their different appearances, regardless of the nonverbal gesture they displayed. We also used images, not actors as previous research had (Abbey, 1982; Henley & Harmon, 1985). The pictures we used may not have represented the nonverbal behaviors we sought to show as accurately as acting confederates would.

However, it is also possible that the confederates were rated differentially due to facial characteristics of maturity rather than the level of dominance their nonverbal behavior was intended to convey. Mature faces have been found to be rated as more dominant by both men and women and in one study, faces that were digitally altered to communicate maturity possessed relatively small eyes and thin lips, whereas faces altered to communicate immaturity had larger eyes and thicker lips (Keating, 1985). The different confederates in our study may have possessed varying levels of facial maturity, which may explain why the confederates were rated differentially for dominance.
Contrary to predictions, a woman shown holding a drink was not rated as sexier than a woman shown without a drink. Previous research found that participants rated a woman as more likely to initiate sexual activity if she had been consuming alcoholic beverages than if she had been consuming non-alcoholic beverages (Corcoran & Thomas, 1991). We used an image of a woman holding a beer bottle, not imbibing the beer. It was not clear from simply looking at the picture whether this woman had consumed the alcohol. Increased sexuality may only be linked with alcohol consumption, not the mere presence of alcohol. Furthermore, our image depicted a woman in a neutral environment (used to control for environmental cues) with a contrived pose. Results may have been more consistent with our predictions if the image conveyed that woman had actually consumed alcoholic drinks. It has been shown that both men and women consume more alcohol in bars than in other settings (Parks & Miller, 1997). While the plain background was used to control for environmental cues, perhaps placing the woman in a bar setting as a background would make the participant assume that the confederate had actually been consuming alcohol. Results may have been more consistent with predictions if the woman in the image had appeared to be more under the influence of alcohol.

An additional challenge to conducting this type of research was the use of participants under the influence of alcohol. When the bars closed, there was an influx of participants into the coffee shop. Thus, there was a crowd of intoxicated participants in the coffee shop and the experimental area was only partially separated from the waiting area by four different tables for each station. Thus, participants completing the task may have distracted by noise and visual cues of the participants waiting in line. Previous research proposes that alcohol intoxication may “restrict attention and thought to the most salient cues in a setting” (Steele & Josephs, 1990, 924). It is possible that the participants were paying more attention to the people waiting in line than to the experimental task. Additionally, many participants verbally expressed that being administered the Breathalyzer test and receiving free pizza motivated them to participate in the study. Thus, participants may not have thoughtfully rated the images in their rush to finish the task quickly, thus possibly altering our data.

The purpose of this research was to investigate the effects of alcohol consumption on nonverbal behavior. While women’s ratings of male confederates’ sexiness decreased as a function of alcohol
consumption, men’s ratings of female’s confederates’ sexiness increased as a function of alcohol. The results we obtained support past research which suggests that alcohol decreases both perceptual and cognitive capacities (MacDonald et al., 1995; Steele & Josephs, 1990; Abbey et al., 1996). This study shows that men’s perceptual capacities are altered as a function of alcohol consumption such that the more men drink, the more they perceive women to be sexy. Men may be misinterpreting women’s nonverbal cues and taking them to indicate sexual intent. Approximately two-thirds of college women report experiencing a situation in which a man with whom they are socializing and consuming alcohol misinterpreted their sexual interest (Abbey, 1987, as cited in Abbey et al., 1996). On the other hand, as women drink more, they perceive men to be less sexy. One must wonder then, why is it that both male and female college students tend to engage in risky sexual behavior after they have consumed alcohol, especially if women find that the more they drink, the less sexy men become? This research suggests that women may be more likely to engage in sexual intercourse with a man after they have consumed alcohol because of the alteration alcohol has caused on her cognitive capacity of risk assessment. This research also implies that women who have been consuming alcohol are at a higher risk for sexual assault, because women’s decreased ability to realistically assess a risky situation is severely altered.

In the future, experimenters could pre-test confederates to ensure that they are rated for equal levels of dominance. This could be further solidified by having a control group during the experiment to ensure that dominance manipulations are consistent with expectations. Additionally, researchers could control for attractiveness and facial maturity of the confederates so that ratings of dominance could be consistent with the researchers’ expectations. Finally, a placebo and/or control group could be used to determine if there are particular expectancy effects associated with consuming alcohol in social establishments such as bars. The implications of such research could provide new and more extensive explanations for the tendency of alcohol consumption to result in risky sexual behavior and possible sexual assault.
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Stacy L. Parkin
References


Table 1

Means of ratings of dominance by men and women on the six poses

<table>
<thead>
<tr>
<th>Pose</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sit (dominant)</td>
<td>2.78</td>
<td>2.78</td>
</tr>
<tr>
<td>Stand (submissive)</td>
<td>2.64</td>
<td>2.80</td>
</tr>
<tr>
<td>Be touched (dominant)</td>
<td>2.56</td>
<td>2.50</td>
</tr>
<tr>
<td>Touch (submissive)</td>
<td>2.56</td>
<td>2.20</td>
</tr>
<tr>
<td>Open (dominant)</td>
<td>2.92</td>
<td>2.78</td>
</tr>
<tr>
<td>Cross (submissive)</td>
<td>3.24</td>
<td>3.22</td>
</tr>
</tbody>
</table>

**Note.** The higher the score is, the greater the rating of dominance.

Figure 1