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Jeffrey N. Weatherly Ph. D.
Department of Psychology, University of North Dakota, jeffrey_weatherly@und.nodak.edu

Brittany Bushaw
Department of Psychology, University of North Dakota

Ellen Meier
Department of Psychology, University of North Dakota

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SOCIAL INFLUENCE WHEN MALES GAMBLE: PERCEPTIONS AND BEHAVIOR

Jeffrey N. Weatherly, Brittany Bushaw, and Ellen Meier
University of North Dakota

Experiment 1 tested whether the gambling behavior of 12 non-pathological male participants would be altered by the presence and/or gender of a confederate who also gambled and whether participants’ self reports would match their actual behavior. Results showed that although actual gambling behavior did not vary as a function of the presence or gender of a confederate, participants reported that it did. Experiment 2 tested whether the gambling behavior of nine non-pathological males would be altered by the presence of a confederate and/or whether the confederate won or lost. Results showed that the presence of the confederate increased gambling, but whether the confederate won or lost did not influence participants’ gambling behavior. As in Experiment 1, participants’ self reports did not match their actual behavior; participants reported no influence of the confederate. The present study sheds light on the situations in which the presence of other gamblers may influence gambling behavior. They also suggest that conclusions based on self reports of gambling should be made with caution as they may not accurately represent actual behavior.

Key words: Social influences, confederates, self reports, gambling, males.

The vast majority of individuals will gamble at some point in their lifetimes and a small proportion of those individuals (1-2%) will become pathological gamblers (see Petry, 2005, for a review). Although that proportion is small, it represents millions of people. Understanding the factors that contribute to gambling and gambling problems is therefore a critical undertaking.

Many forms of gambling occur in social settings, so it seems reasonable that social factors might influence gambling behavior. Previous research supports this assertion. For instance, Blascovich and Ginsburg (1974b) had male participants play blackjack along with confederates. Results showed that participants altered the amount of their bets as the confederates changed their bets. Recent research from our laboratory (McDougall, McDonald, & Weatherly, 2008) has demonstrated that male participants played fewer trials and bet fewer credits when gambling on a slot-machine simulation when a confederate was present but quit playing (i.e., left the session early) versus when the confederate remained and played throughout the session (or when the participant gambled alone). Overall, the research literature supports the notion that people conform (e.g., see Asch, 1955) in a number of situations including those that involve risk taking (Blascovich & Ginsburg, 1974a, b; Blascovich, Ginsburg, & Veach, 1975; Carli, Lafleur, & Loeber, 1995; Hardoon & Derevensky, 2001; Lee, 2004; Moore & Kim, 2003).

Acknowledgements:
Partial completion of this project was made possible by an Advanced Undergraduate Research Award fellowship granted to the third author and a corresponding mentor award granted to the first author by the National Science Foundation (EPSCOR05-08).
Research in non-gambling situations has shown that an effect of gender exists in the area of social influence. For instance, men appear more likely to conform to other men than they are to women (Carli et al., 1995; Lee, 2004). Carli et al. (1995) found, for example, that when participants viewed videos of male and female confederates performing competent styles of persuasion speeches, male participants were influenced more by male speakers than by female speakers. To our knowledge, whether gambling can be socially influenced as a function of gender has not been examined.

Also relevant to the present study is the finding that men tend to engage in riskier behaviors (e.g., less likely to go to a doctor, more likely to abuse alcohol, more likely to gamble) than women (Mahalik, Lagan, & Morrison, 2006). Hardoon and Derevensky (2001), for example, found that fourth- and sixth-grade males increased their non-monetary bets in group settings more so than females when both played a computer-simulated Roulette game. More generally, the gambling literature supports the conclusion that males are more prone to gamble and become pathological gamblers than are females (Petry, 2005). So much so, in fact, gender is one of the six risk factors for pathological gambling (Petry, 2005).

One way to determine how certain environmental factors influence individuals’ behavior is to ask the individuals directly. Such self reports are common when studying social influences (Baumeister, Vohs, & Funder, 2007). The majority of research has found that when beliefs and/or attitudes are carefully measured and correspond to the behavior being measured, they can accurately predict behavior (Ajzen & Fishbein, 1977). However, research has also shown that there are sometimes stark differences between what people say they would do and how they actually behave (e.g., LaPiere, 1934). More recent research has shown that self reports can be quite inconsistent with actual behavior, leading researchers to question their validity (Cohen, Manimala, & Blount, 2000; and see Baumeister et al., 2007). Nisbett and Wilson (1977) concluded that self reports would accurately predict behavior only when stimuli influential to the behavior being measured are present when participants provide self reports.

Research on social influence suggests that surveys can sometimes accurately predict peoples’ behavior. For instance, high self monitors are more likely than low self monitors to alter their behavior according to the circumstances that they are experiencing (e.g., Ickes, Holloway, Stinson, & Hoodenpyle, 2006). Self monitoring has also been shown to relate to inaccuracy in self reporting, with high self monitors perhaps wishing to appear more socially desirable than low self monitors (Snyder & Gangestad, 1986). Research has not yet investigated the potential connection between self monitoring and gambling behavior and/or how gambling is socially influenced.

**EXPERIMENT 1**

Experiment 1 tested whether the gambling behavior of male participants would be altered by the presence and/or gender of a confederate gambler. Given previous research results, we hypothesized participants’ gambling would be altered by the presence of a confederate who also gambled and that participants would gamble most in the presence of a male confederate. Additionally, prior to gambling, participants were asked to complete two self-report measures designed to assess susceptibility to social influence. Given the past research with these scales, we hypothesized that participants’ scores would be predictive of how the presence of a confederate influenced their behavior. At the conclusion of the study, participants were asked to report how the presence and gender of the confederate influenced their gambling
behavior. We hypothesized that participants would accurately report that influence.

**METHOD**

**Participants**

Participants were 12 male undergraduate students from the University of North Dakota who were 21 years of age or older and who scored below a 5 on the South Oaks Gambling Screen (SOGS; Lesieur & Blume, 1987). Participants’ age ranged from 21 to 23 years old (\(M = 22.08\) years old, \(SD = .90\) years). The range of the SOGS scores was 0 to 3 (\(M = 1.25, SD = .97\)). Eleven of the participants self identified as white and one as Asian. Eight of the 12 participants reported having an annual income of under $10,000.

**Materials**

Participants completed several paper-pencil measures. They completed a demographic questionnaire that asked about age, gender, marital status, ethnicity, and annual income. Information on these factors was collected because each factor is related to pathological gambling (Petry, 2005).

The next questionnaire was the SOGS (Lesieur & Blume, 1987). The SOGS is a widely used screening tool for the potential presence of pathological gambling (see Petry, 2005). It consists of 20 items pertaining to one’s gambling experience and history. A score of 5 or more on the SOGS suggests the potential presence of pathology. Research indicates that the SOGS displays good internal consistency (Lesieur & Blume, 1987; Stinchfield, 2003) and test-retest reliability (Lesieur & Blume, 1987).

Participants then completed the Self Monitoring Scale (SMS; Snyder, 1974). This survey contains 18 true-false questions that ask about how much people pay attention to their own actions. The SMS is designed to assess ways in which people adjust their behaviors based on social comparisons presented in their environment and has been shown to predict actual behavior (Snyder & Gangestad, 1986). Higher scores on the SMS suggest that the participant is a higher self monitor. Research on the SMS has been mixed, with some studies reporting acceptable psychometric properties (e.g., Ahmed, Garg, & Braimoh, 1986) and others questioning them (e.g., Dillard & Hunter, 1989).

Participants also completed the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960), which consists of 33 true-false statements about actions performed by people. The actions are either socially desirable, but seldom done by most people, or actions that are not socially desirable, but commonly done by most people. The MCSDS was designed to determine how people report doing appropriate behaviors that are in truth unlikely to occur. This survey is widely used to assess social desirability bias (Beretvas, Meyers, & Leite, 2002), has strong internal consistency and test-retest reliability (e.g., Tatman, Wogger, Love, & Cook, 2009), and has been shown to predict actual behavior (Crowne & Marlowe, 1960). Scoring higher on the MCSDS suggests that a participant tends to be strongly affected by social expectations.

The final measure was an exit questionnaire created for the present study. The questionnaire contained 14 items measured on a Likert scale. The questions pertained to whether or not the participants believed the presence or absence of a confederate and/or the gender of the confederate affected them and/or their own behavior. These questions can be found in the Appendix.

**Apparatus**

The experiment was conducted in a small, windowless room. The room contained three slot machines, two of which were employed in the present study. Participants completed the surveys and gambling sessions in this room.
Participants always gambled on one slot machine, which was an IGT Triple Diamond machine. The machine allowed the player to bet either one or two tokens per play and was programmed to pay back 87% over an indefinite period of play. The maximum number of tokens that could be won on a two-token bet was 2,500. The machine recorded the total number of coins inserted into the machine and the total number of coins paid out. The researcher manually recorded the number of times the participant played.

Confederates played an IGT Red, White, and Blue (wild) slot machine. This machine was approximately 5 feet away from the participant’s machine and faced the participant’s slot machine (i.e., back to back). This configuration was dictated by the dimensions of the room and the table necessary to support the slot machines. The slot machine played by the confederate(s) was configured similarly to the machine participants played.

Procedure

Participants gambled in three different sessions that were separated by at least 24 hours. In the initial session, the researcher checked the participant’s identification to ensure he was 21 years of age or older. Next, the researcher went through the informed-consent process with the participant. Once informed consent was granted, the participant completed the demographic survey and the SOGS. The participant then completed the SMS and the MCSDS. While the participant was completing these measures, the researcher scored the SOGS to determine if the participant was eligible to continue (i.e., scored < 5). No participants had to be eliminated because of their score on the SOGS.

After completing the surveys, the participant was given 100 tokens worth five cents each to play on the slot machine. In each session, the researcher read the participant the following instructions:

You will now be given the opportunity to play on a slot machine. You will be given 100 tokens worth five cents each. Thus, you are being given five dollars to play with. You may bet as many credits per play as the machine allows. Your goal should be to end the session with as many tokens as you can. You may end the session at anytime by informing the researcher that you would like to end the session. The session will end when a) you quit playing, b) you run out of tokens, or c) 15 minutes has elapsed. At the end of the experiment you will be paid in cash for the number of tokens you have left or have accumulated. Do you have any questions?

Questions were answered by repeating the instructions.

Sessions differed in whether the participant gambled alone or with another gambler (i.e., a confederate posing as another participant). Participants experienced two sessions in which a confederate was present, one in which the confederate was male and another in which the confederate was female. The male and female confederates were the same individuals for all participants. The gender of the researcher always matched that of the confederate for the sessions in which a confederate was present. In half the sessions in which the participant gambled alone, the researcher was a female and in the other half, the researcher was male.

The order in which participants experienced these three sessions varied randomly across participants. If the participant’s first session involved a confederate, the researcher informed the participant that the confederate had completed the questionnaires in a previous session. Confederates were instructed to “act normally” during the sessions and to play as long as possible, but not to initiate conver-
sations with the true participant. In other words, the confederate could talk to him/herself and/or the machine, but was instructed not to talk to the participant (unless the participant initiated the conversation). If a verbal interaction occurred, the confederate was instructed to make it as brief as possible. Further, the participant was instructed to not always bet the maximum number of tokens so as to decrease the probability of running out of tokens before the end of the session.

After completing the third and final session, the participants completed the exit questionnaire. Afterwards, the participant was debriefed, given extra course credit for his participation, paid for the amount of credits he had accumulated across the three sessions, and dismissed.

RESULTS
Two dependent measures were analyzed. The first was the number of trials played on the slot machine per session, which can be considered a measure of persistence. The second was the total number of tokens bet per session, which can be considered a measure of risk. Results from separate one-way repeated measures analyses of variance (ANOVAs) indicated that neither measure varied as a function of the presence or gender of the confederate. Participants did not play a significantly different number of trials across the three different sessions \((F < 1)\). They also did not bet a significantly different number of tokens across the three sessions \((F < 1)\). Results for these analyses, and all that follow, were considered significant at \(p < .05\).

Correlations conducted on the participants’ scores on the SMS and/or MCSDS and the measures of their gambling behavior resulted in no significant correlations. However, several significant correlations were found between participants’ scores on the social surveys and the exit questionnaire assessing the effect of the confederates’ presence. A significant correlation was found between participants’ total score on the MCSDS and the exit question “It was more enjoyable gambling with another gambler present than alone” \((r = .587, p = .045)\). This result indicates that, although the MCSDS did not predict gambling behavior, it was related to self-reported enjoyment of the presence of another gambler. There was also a significant positive correlation between participants’ total score on SMS and the exit question “I felt the pressure to win was less when I was alone” \((r = .736, p = .006)\), indicating that ratings on the SMS were related to self-reported internal pressures elicited by the presence of another gambler.

A significant negative correlation was found between the exit question “I played more conservatively when I was alone” and the total number of trials participants played during the male confederate session \((r = -.600, p = .039)\). This result indicates that participants’ self report of the effect of the confederates’ presence was somewhat inaccurate, at least for number of trials played when the confederate was a male. A significant correlation was also found between participants’ scores on the exit question “I was luckier when there was a female gambler present than when there was a male gambler present” and the total credits bet during the male confederate session \((r = .672, p = .017)\). Thus, the more luck participants reported experiencing when the female confederate was present, the more they gambled when the male confederate was present.

A final correlation was found between participants’ self report of self monitoring and their self report of their gambling experience. A significant negative correlation was found between participants’ total score on SMS and the exit question “If the money was out of my own pocket, I would have gambled for a shorter amount of time” \((r = -.723, p = .008)\). The higher the self monitoring score the less sensitive participants reported being to the fact they were gambling with money that had been staked to them.
DISCUSSION

Results from the present experiment suggest that the gambling behavior of males playing an actual slot machine did not differ as a function of the presence or gender of a confederate who also gambled. This result is inconsistent with some previous research (e.g., Blascovich & Ginsburg, 1974b), but somewhat consistent with results from our laboratory. Specifically, McDougall et al. (2008) found that gambling was decreased when a confederate quit gambling and left the session but that the simple presence of another gambler did not significantly increase gambling relative to when the participant gambled alone. That result was replicated in Experiment 1.

Results from Experiment 1 also suggest that there is a disconnect between the participants’ self reports of the influence of the confederates and their actual influence. Participants reported playing more conservatively when alone than when a confederate was present, but their actual gambling behavior did not correspond with these reports. They also reported “feeling luckier” when a female confederate was present, but tended to bet more when the male confederate was present.

EXPERIMENT 2

The lack of influence of a confederate in Experiment 1 may have been a function of the procedure. Although a confederate was present in two thirds of the sessions, this person played a slot machine that was several feet away from the participant and interaction between the participant and confederate was minimal. For instance, because the slot machines were positioned back-to-back, the participant would have a difficult time seeing the confederate unless he purposely glanced around the slot machine he was playing.

Experiment 2 was an attempt to increase the potential influence of the confederate. Participants played a slot-machine simulation across three separate sessions. In two of these sessions, a female confederate was present and played a second simulation immediately adjacent to the one played by the participant. In one of the confederate sessions, the simulation played by the confederate was programmed to “win” and the confederate boisterously exalted when winning. In the other confederate session, the simulation played by the confederate was programmed to “lose” and the confederate loudly voiced her disdain when losing. We hypothesized that the increased interaction would produce an effect of confederate presence and that the participants’ gambling would be directly related to the outcomes experienced by the confederate. We again had participants complete the self-monitoring and self-report measures used in Experiment 1 to determine if similar results would be observed.

METHOD

Participants

Participants were nine male undergraduate students from the University of North Dakota who were 21 years of age or older and who scored below a 5 on the SOGS (Lesieur & Blume, 1987). Participants’ age ranged from 21 to 24 years old ($M = 21.67$ years old, $SD = 1.12$ years). The range of the SOGS scores was 0 to 4 ($M = 1.44$, $SD = 1.13$). Seven of the participants self identified as white, one as American Indian, and one as Black or African American. Six of the nine participants reported having an annual income of under $10,000.

Materials & Apparatus

Participants completed the same materials as in Experiment 1, with the exception of questions 3, 4, and 7 on the end-of-experiment questionnaire. Experiment 2 was also conducted in a small, windowless room (different from that used in Experiment 1) that contained two personal computers. The computers were located approximately three feet adjacent to one another and each was loaded...
with the same slot-machine simulation (MacLin, Dixon, & Hayes, 1999). Participants always played the computer on the left, which was programmed to pay out at approximately 85%. The confederate (when present) always played the computer on the right, which was programmed to pay off at approximately 118% (winning condition) or 2% (losing condition).

Procedure
Experiment 2 utilized the identical procedure to Experiment 1 with the exception that participants played credits that were pre-loaded on to the slot-machine simulation prior to their arrival rather than using tokens. Further, the slot-machine simulation allowed participants to bet either one or five credits per play.

RESULTS
Results from a one-way repeated measures ANOVA showed that participants played a different number of trials across the three different sessions ($F(2, 16) = 4.37, p=.031$). Comparisons of the different sessions showed that participants played more trials in the confederate losing ($F(1, 8) = 7.82, p=.023$) and winning sessions ($F(1, 8) = 5.87, p=.042$) than when they played alone, but played a similar number of trials in the two confederate sessions ($F < 1$). Likewise, results from an identical ANOVA on number of credits bet indicated that participants bet a different number of credits across the three sessions ($F(2, 16) = 3.70, p=.048$). Participants again bet more in the confederate losing ($F(1, 8) = 10.18, p=.013$) and winning sessions ($F(1, 8) = 5.88, p=.041$) than when they played alone, but bet a similar amount in the two confederate sessions ($F < 1$). The differences in trials played and credits bet can be seen in Figure 1.

SOGS scores were significantly correlated with the number of trials played in the alone session ($r = .706, p=.034$), but were not correlated with any other measure of gambling. Scores on the SMS were correlated with the number of trials played in the confederate winning session ($r = -.685, p=.042$), suggesting that higher self monitors tended to play fewer trials when the confederate was winning.

In terms of the exit questionnaire, there was a significant correlation between the number of trials participants played when alone and their response to “I felt more alert and motivated when there was another gambler present” ($r = .807, p=.009$). Answers to the questions “I played more conservatively when I was alone” and “I gambled differently when there was another player than when I was alone” did not correlate with any measure of gambling behavior.

DISCUSSION
An effect of confederate was observed in Experiment 2. Participants played more trials and bet more credits when a confederate was present than when she was not. Their gambling did not, however, differ as a function of whether or not the confederate won or lost. As in Experiment 1, results from participants’ self reports did not match their actual behavior. In the present instance, the difference was that participants did not report an effect of the confederate when, in fact, their behavior differed as a function of the presence of the confederate.

GENERAL DISCUSSION
The present study was undertaken to investigate several things. The first was to determine whether the gambling of males would be altered by the presence and gender of a confederate. The second was to determine whether paper-pencil measures of attributes associated with social influence would be predictive of changes in participants’ gambling as a function of the presence of a confederate. The third was to ascertain whether participants’ self reports of their behavior matched their actual behavior.
Results across the two experiments suggest that, in some instances, the presence of a confederate may promote gambling. However, they provide no evidence that the effect of having another gambler present varies as a function of the gender of the other gambler. Only Experiment 1 manipulated the gender of the confederate (i.e., the confederate in Experiment 2 was always female) and no effect of gender was found. Experiment 2 manipu-
lated whether or not the confederate won. This manipulation did not significantly alter the gambling behavior of the participants. Participants did, however, play and bet more in the presence of the confederate in Experiment 2 whereas they did not do so in Experiment 1. The procedures of the two experiments differed in how proximal and vocal the confederate was to the participant. The difference in results therefore suggests that these factors play a role in the influence other gamblers have on gambling behavior. Unfortunately, because both proximity of the confederate and how vocal she was were manipulated together, it is not possible to tell if the present results were the outcome of only one of these manipulations. Future research will need to manipulate these factors independently to determine if one or both of these factors produced the increase in gambling.

With that said, previous studies that have reported significant increases in gambling as a function of the actions of a confederate (e.g., Blascovich & Ginsburg, 1974b) have used procedures that involve interaction between the participants and the confederate. Previous results from our laboratory that failed to find such an increase (McDougall et al., 2008) did not promote any interaction. Other research (e.g., Rockloff & Dyer, 2006) has reported increases in betting when players are informed that others are playing the same game and winning. The results from Experiment 2 do not support the idea that the confederate winning or losing was influential.

One could argue that the failure to find an effect in Experiment 1 was due to our use of only 12 participants. That concern, however, can be somewhat countered by the fact that significant results were observed in Experiment 2, which employed only nine participants. By the same token, one could also argue that a significant effect of the confederate winning or losing would have been observed had we employed more participants than we did in Experiment 2. That argument is legitimate and cannot be countered.

Another goal of the present study was also to measure how well self-monitoring scales would predict or match actual behavior. With one exception (see Experiment 2), neither self-monitoring scale used in the present study correlated with actual gambling behavior. Multiple explanations exist for why this result was observed. One may have to do with the influence the confederate had on gambling behavior. Given that the presence of a confederate had an effect only after a procedural variation was instituted, it may be unreasonable to expect a general measure of self-monitoring to be predictive across any or all procedures. Likewise, these general measures of self-monitoring may not apply to specific types of behaviors such as gambling. As noted above, employing more participants may have revealed that a relationship between these scales and gambling and/or the presence of the confederate indeed exists. Of course, it is also possible that these scales are not good predictors of actual behavior. Further research into these myriad possibilities would be required to draw any firm conclusions. If such research was to be pursued, it might be helpful to prescreen participants to ensure wide variation in scores on the self-monitoring scales.

The present study also found that participants’ self-reports did not always match their actual behavior. Participants in Experiment 1 reported that the confederate influenced their gambling when such an effect in actual gambling behavior was not observed. Participants in Experiment 2 did not report that the confederate influenced their gambling. However, a significant effect of confederate presence was observed in actual gambling behavior.

The present results should therefore serve to spur the study of actual gambling behavior rather than what has become a reliance on self-reports (e.g., see Baumeister et al., 2007).
More specifically, if self-report measures do not accurately reflect actual behavior in controlled laboratory situations of fairly short durations, then it may be unreasonable to expect them to accurately reflect reality in more complex, wide-ranging situations. Further, given that the self reports gathered in the present study varied in both directions across the two experiments (i.e., reporting an effect when none was observed; not reporting an effect when one was observed), it may not even be possible to expect a systematic bias with self reports. Those interested in using self reports might therefore be well served by taking at least some measures of actual gambling behavior as a measure of reliability.

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Action Editor: Mark R. Dixon