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Partner Type, Sexual Double Standard Endorsement, and Ambivalence Predict Abdication and Unprotected Sex Intentions in a Community Sample of Young Women

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Abstract

In-the-moment ambivalence about having sex may influence sexual decisions, but has rarely been examined. We investigated how ambivalence about sex might be related to intentions to abdicate sexual decisions to a male partner and to engage in unprotected sex in a community sample of young women. Predictors of abdication and unprotected sex intentions included partner type (new casual vs. previous relationship), sexual double standard (SDS) endorsement, and two types of ambivalence. After completing a SDS endorsement measure, women ($n = 360$) projected themselves into a hypothetical sexual situation and completed dependent measures. In the new casual partner condition, SDS endorsement indirectly negatively predicted unprotected sex intentions through its associations with ambivalence and abdication. In both partner conditions SDS endorsement positively predicted abdication, which then positively predicted unprotected sex intentions. Ambivalence indirectly predicted unprotected sex intentions through its negative association with abdication intentions. Results suggest the importance of ambivalence for sexual decisions and the complexity of understanding the sexual decision making processes for women who endorse the SDS.

Keywords

ambivalence; gender roles; sexual decision making; unprotected sex

Women often report ambivalence, or conflict, about whether or not to have sex (Muehlenhard & Peterson, 2005), and researchers who study sexual decision making have noted that women can have conflicting cognitions about having sex (Norris et al., 2009b). However, few researchers have examined the role of in-the-moment ambivalence in

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women's sexual decision making, particularly with regard to abdicating the decision to have sex to their partner and having unprotected sex. For a woman to abdicate sexual decision making to a male partner is to give him the power to decide whether and under what conditions they have sex, which is consistent with traditional gender role prescriptions that women be passive and men be active in sexual situations (Sanchez, Fetterolf, & Rudman, 2012). For the present investigation, unprotected sex refers to penile-vaginal sex without a condom, which can increase STI risk when sexual partners do not have firm evidence that the other person is disease-free. It is especially important to understand how women who have sex with men make decisions about having sex without a condom because women almost always acquire HIV or other sexually transmitted infections (STIs) from male partners through unprotected sex (CDC 2009; 2010). Abdicating to a partner can result in sex without a condom if the partner wants to have sex without one (Frost, Lindberg, & Finer, 2012; Zawacki et al., 2009).

In addition to examining how ambivalence might relate to abdication and unprotected sex intentions, we examined two factors that might predict ambivalence: endorsement of the sexual double standard (SDS) and sex partner type (new casual partner or previous relationship partner). The SDS' role in women's sexual decision making is especially important to examine because its endorsement suggests that women's decisions should be consistent with being submissive, thus potentially increasing their risk of acquiring an STI. The goal of the present investigation was to examine associations among SDS endorsement, situational factors (i.e., partner type and ambivalence about having sex), abdication to a partner, and unprotected sex intentions in a hypothetical sexual encounter for a community sample of young women who were not currently in a committed relationship but were interested in having sex with men. Understanding relationships among these factors will enrich our understanding of women's sexual decision making as well as suggest ways to apply this knowledge to the development of empirically based sexual risk reduction interventions.

Potential and Felt Ambivalence and Sexual Decisions

Muehlenhard and Peterson (2005) describe a "missing discourse of ambivalence" in the literature on sexual decision making, stating that sex is seldom either wanted or unwanted, but is often both (p. 15). They argue that gaining a more complete understanding of sexual decision making necessitates viewing sexual encounters as contexts in which ambivalence might occur. In line with this view, women may endorse both impelling (in favor of a particular outcome - pros) and inhibiting (not in favor of a particular outcome - cons) cognitions about having sex (Norris et al., 2009b) as part of the appraisal process during sexual decision making. Impelling and inhibiting cognitions can take several forms. A woman might experience impelling cognitions about pursuing sexual pleasure or a potential relationship. She might also experience inhibiting cognitions such as concerns about whether her potential sex partner will respect her after they have sex or the possible detrimental effects of doing so on relationship development. If a woman reports simultaneously strong impelling and inhibiting cognitions about having sex, she could be described as holding "equivalently strong positive and negative evaluations," which is referred to as ambivalence (Thompson, Zanna, & Griffin, 1995; p. 367).

Social psychological theory describes two types of ambivalence (Conner & Armitage, 2008) – potential and felt – both of which are relevant to women’s sexual decision making. Potential ambivalence is defined as simultaneously endorsing strong positive and negative attitudes regarding an outcome or concept for which separate measures are obtained and then numerically combined to yield a continuous measure of ambivalence (Thompson et al., 1995). For this study, potential ambivalence is the simultaneous endorsement of impelling and inhibiting cognitions about having sex. Felt ambivalence is defined as conscious feelings of conflict or discomfort regarding the outcome or concept (Priester & Petty, 1996). Potential ambivalence should positively predict felt ambivalence because potential ambivalence represents the source of conflicting impelling and inhibiting cognitions that one becomes increasingly aware of when making a decision that pits the two types of cognitions against each other (Newby-Clark, McGregor, & Zanna, 2002; van Harreveld, Rutjens, Rotteveel, Nordgren, & van der Pligt, 2009). That is, when a woman is in a sexual situation and experiences both strong impelling (e.g., sex would feel good) and inhibiting (e.g., he might not respect me later if we have sex) cognitions about having sex, she is subsequently likely to feel some conscious level of conflict about having sex in that situation with that particular partner.

Ambivalence is an aversive state (van Harreveld, van der Pligt, & de Liver, 2009) such that the effect of felt ambivalence on behavior is rooted in attempts to reduce or eliminate feelings of conflict and discomfort (Holbrook & Krosnick, 2005). Additionally, ambivalent individuals tend to fall prey to the negativity bias such that they anticipate negative outcomes over positive ones (e.g., outcomes consistent with their inhibiting cognitions over their impelling cognitions) and are highly motivated to reduce the likelihood of feeling regret as a decisional consequence (for a review see van Harreveld, van der Pligt, et al., 2009). One way of reducing discomfort is to actively make a choice and invest cognitive resources into making the right choice (van Harreveld, van der Pligt, et al., 2009). Thus, we predicted that felt ambivalence would be associated with taking control over the sexual decision and so would be negatively associated with abdicating decision making to one’s sexual partner. Further, given the propensity of ambivalent individuals to focus on possible negative outcomes, we also predicted that felt ambivalence about having sex would be associated with both a decreased intention to abdicate to one’s sexual partner and a decreased intention to have unprotected sex. Allowing a partner to decide whether to use a condom would cede control about the decision making process to him and potentially lead to a negative outcome. Thus, a woman with felt ambivalence about sex would want to both take control of the situation, that is, not abdicate decision making, and not want to have unprotected sex. In support of predictions, O’Sullivan and Gaines (1998) found that over half of the college students sampled who reported ambivalence about having sex decided not to have sex. In addition to examining the association between felt ambivalence and abdication and unprotected sex, we also examined two factors that we believed would predict ambivalence within a sexual encounter, specifically SDS endorsement and partner type.

Factors Predicting Ambivalence

Sexual Double Standard (SDS)

Beliefs about both the gendered nature of sexual experience vs. inexperience and dominance vs. submission constitute the SDS. According to the SDS, men should be sexually experienced and women sexually inexperienced, particularly women outside of heterosexual marriage (for a review, see Crawford & Popp, 2003). Further, consistent with traditional gender roles, men are expected to be sexually dominant and women submissive and compliant (Impett & Peplau, 2003; Sanchez et al., 2012). In the present investigation, we predicted that women's SDS endorsement would be positively associated with potential ambivalence during in-the-moment sexual decision making due to simultaneous desires for sex and concerns about the ramifications of agreeing to engage in sexual intercourse. In conceptualizing potential ambivalence for the present study, we focused on impelling cognitions consistent with sexual desire and inhibiting cognitions consistent with the SDS. Arousal and desire are powerful internal sexual cues that influence decisions about engaging in unprotected intercourse (Davis, Hendershot, George, Norris, & Heiman, 2007; George et al., 2011; MacDonald, MacDonald, Zanna, & Fong, 2000; Norris et al., 2009a). Additionally, SDS endorsement should positively predict concern about backlash, particularly concern with being shamed or stigmatized by others for being sexually experienced (Conley, Ziegler, & Moors, 2013). A woman for whom strong concerns about backlash and feeling bad about herself for having sex (inhibiting cognitions consistent with the SDS) are pitted against a strong desire to have sex (impelling cognitions) should be particularly high in potential ambivalence regarding whether or not to have sex. However, because women learn to view sex as appropriate within the context of committed relationships (Holland, Ramazanoglu, Scott, Sharpe, & Thomson, 1990) and are generally only shamed for sexual encounters outside of committed heterosexual relationships, the type of sex partner has implications for whether SDS endorsement should predict potential ambivalence.

Partner type

Whether a single woman interacts with a new casual partner (i.e., a partner with whom the woman has never had sex and likelihood of a future relationship is unknown) versus a partner from a previous relationship (i.e., a known partner with whom a woman had a previous relationship and has the possibility of the relationship being rekindled) should influence both her in-the-moment cognitions relevant to potential ambivalence and her willingness to abdicate to her sexual partner. With a new casual partner, SDS endorsement is highly relevant given the possibility of feeling shame for non-relationship sexual contact, and thus greater SDS endorsement should contribute to greater potential ambivalence. Additionally, given that one component of the SDS is that women should comply with the wishes of a male sexual partner, greater SDS endorsement should directly predict greater abdication for women who are considering sex with a casual partner. That is, SDS endorsement may be associated with a lower likelihood of abdication to the extent that women experience ambivalence, and SDS endorsement may also be associated with a higher likelihood of abdication after accounting for ambivalence. These expected associations underscore the complexity of understanding women's sexual decision making processes.

In contrast, it is viewed as more acceptable for women to have sex within the context of committed heterosexual relationships, and women who have sex in the context of a relationship are less likely to receive censure than women who have sex with casual partners (Holland et al., 1990; Tolman, 2002). Sexually active young adults often report having sex with individuals with whom they had a previous relationship (Manning, Giordano, & Longmore, 2006). Previous relationship partners are “known” and therefore engender feelings of trust and safety (Bajos & Marquet, 2000; Bourne & Robson, 2009; Misovich, Fisher, & Fisher, 1997). In sum, for single women, sex with a previous relationship partner violates the tenets of the SDS less than sex with a new casual partner because previous partners come closer to the ideal of a committed, long-term partner. Therefore, we expected that SDS endorsement would only be predictive of potential ambivalence for new casual partners compared to previous relationship partners. Additionally, given that the SDS is less relevant for women considering sex with a previous relationship partner, we did not expect an association between SDS endorsement and abdication.

Study Overview and Hypotheses

This study combined data from two experiments to examine how SDS endorsement, partner type, and both potential and felt ambivalence were related to women’s abdication and unprotected sex intentions. In both experiments, as part of a larger alcohol administration study, women reported their SDS endorsement and then projected themselves into an eroticized hypothetical sexual scenario with a desirable male partner. The two studies differed in only one respect. One experiment described the couple as having never had sex (new casual partner), whereas the other experiment described the couple as having previously had a relationship, having mutually agreed to end it, and meeting again (previous relationship partner). We measured women’s potential and felt ambivalence about having sex in these situations as well as their abdication and unprotected sex intentions. We used the multiple groups path model in Figure 1 to test our predictions. Specifically, we hypothesized that SDS endorsement would be positively associated with both (H1) potential ambivalence and (H2) abdication for women in the new casual partner group but not women in the previous relationship group. We also hypothesized (H3) that potential ambivalence would be positively associated with felt ambivalence about having sex for both groups, that (H4) felt ambivalence would be negatively associated with both intentions to abdicate the sexual decision to the partner and unprotected sex intentions and that (H5) abdication intentions would be positively associated with unprotected sex intentions for both groups. In addition to these predicted direct effects, we also tested potential explanatory pathways regarding indirect effects. We hypothesized (H6) that for all women, potential ambivalence would be negatively associated with abdication intentions via felt ambivalence. Further, potential ambivalence would be negatively associated with unprotected sex intentions via (H7) felt ambivalence and via (H8) both felt ambivalence and abdication intentions. For women in the new casual partner condition, (H9) SDS endorsement would be negatively associated with abdication via both potential and felt ambivalence and that SDS endorsement would be negatively associated with unprotected sex intentions via (H10) potential and felt ambivalence and via (H11) potential ambivalence, felt ambivalence, and abdication

intentions. Finally, for women in the new casual partner condition, (H12) SDS endorsement would be positively associated with unprotected sex intentions via abdication.

Method

Data used in this study were collected as part of two experiments investigating factors influencing sexual decision making in a community sample of young women who were not currently in a committed relationship but were interested in having sex with men.

Participants

Young women ($N = 364$) between the ages of 21 and 35 ($M_{age} = 25.24$, $SD = 3.89$) were recruited from the community in a major metropolitan area in the Pacific Northwest through posted flyers and online ads. Reported ethnicities were: 67% Caucasian, 7.4% African-American, 6% Asian-American/Pacific Islander, 3.3% American Indian/Native Alaskan, 8.2% multi-racial, and 8% other; 9.6% identified as Hispanic. Approximately one-third of participants were either full- or part-time students. To ensure participants could relate to the experimental story, inclusion criteria were: (1) a history of consensual sexual intercourse with a man; (2) an interest in having a future relationship with a man; (3) not currently in a committed exclusive relationship. Because participants were part of a study that included an alcohol administration experiment, exclusion criteria included being an alcohol abstainer, having a history of problem drinking, or currently taking medications contraindicating alcohol consumption.

Participants reported an average of 15.3 lifetime sex partners ($Mdn = 11.0$; $SD = 17.8$). Ninety-six percent reported having at least one male sex partner in the past year, and 83% reported having at least one male sex partner within the past three months. There were no significant differences in demographics or the background variable of SDS endorsement between participants in the two experiments (all p 's ns). One participant had missing data on a key variable and three were outliers (had scores ± 3 standard deviations from the mean on at least one key variable). These participants were removed; thus, we retained 360 participants.

Procedure

All procedures were approved by the university's Human Subjects Division and all laboratory procedures across the two experiments were identical. Interested women phoned the lab to determine eligibility. Interested and eligible participants were scheduled for a laboratory visit. Upon arrival, participants completed a set of computerized background measures, including SDS endorsement, in a private room. They then underwent a standardized alcohol administration protocol¹. In the second part of the session, participants read a stimulus story describing a social interaction between a woman and a man named

¹Alcohol condition had three levels: control, low dose (target BAC = 0.04%), or high dose (target BAC = 0.08%). The stimulus story also manipulated partner risk potential (unknown, low, and high) in terms of the potential for STI contraction, though this manipulation was very weak at the point in the story from which the dependent measures were assessed. Both manipulations are described in detail in Author Citation. We conducted a 3 (alcohol condition) x 3 (risk potential) ANOVA to examine possible effects of these variables on our four outcomes: potential ambivalence, felt ambivalence, abdication intentions, and unprotected sex intentions. Thirty participants who failed manipulation checks relevant to these manipulated variables were removed prior to analyses. To reduce

“Nick.” The story was written from the participant’s perspective (i.e., “You are...”) and participants were told to project themselves into the story. The story began with a conversation between the woman (i.e., the participant) and a friend, Anita, in which Anita invited her to Anita’s boyfriend’s place to watch movies and mentioned that Nick would be there. In the new casual partner condition, the couple had interacted several times before, but had never had sexual intercourse. In the previous relationship condition, the couple had had a six month relationship, but mutually agreed to break up when the man moved away for a new job a year ago. He recently returned to the same city. The evening progressed with Nick and the woman enjoying themselves. At key points throughout, the story was paused for participants to complete dependent measures. The first pause occurred after the couple was alone in a bedroom and the man kissed her on the cheek; the partner familiarity questions were administered. The story continued with descriptions of the couple’s escalating passionate sexual acts until both were partially undressed and Nick had begun to unbutton the woman’s jeans. It was established that the woman was on the pill to ensure that pregnancy risk would not be the main reason for using a condom, but condom availability was not yet discussed. Potential ambivalence, felt ambivalence, intention to abdicate sexual decision making to the partner, and unprotected sex intentions were assessed in that order, in addition to stimulus story ratings (e.g., participant engagement in the story). At the end of the session, participants were debriefed, paid \$15/hour, and provided with information about STI prevention.

Measures

SDS endorsement—Participants completed the Double Standard Scale (Caron, Davis, Halteman, & Stickle, 1998) to which we made minor revisions to instructions and several items to improve clarity. They responded to 10 items on 5-point scales (1 = *strongly disagree* to 5 = *strongly agree*). We removed one item (“It is acceptable for a woman to carry condoms”) because doing so substantially improved the scale reliability ($\alpha = .65$ to $\alpha = .72$). Sample items include: “A woman who is sexually active is less likely to be considered a desirable partner” and “In sex the man should take the dominant role and the woman should take the passive role.”

Potential ambivalence—Participants indicated the importance of impelling and inhibiting cognitions (adapted from Author Citation) for their decision about having sex with Nick on 5-point scales (0 = *not at all important*, 2 = *moderately important*, 4 = *extremely important*). We used 7 items to assess impelling cognitions related to arousal and desire to have sex ($\alpha = .86$) and 12 inhibiting cognitions related to apprehensions about being viewed negatively by others or having less respect for oneself if one had sex ($\alpha = .92$). To verify that the items comprised two factors we performed parallel analyses (O’Conner, 2000) and conducted an exploratory factor analysis with principal axis factoring and a Varimax rotation (Brown, 2006), which both supported a two factor solution. Sample impelling cognitions included: “I am really horny;” “I want to please him;” and “The ‘chemistry’ is right.”

Type I error rates, we used Bonferroni corrections to adjust for multiple comparisons; $p < .01$ was required to conclude that there was a significant effect. There were no significant main or interactive effects ($ps > .02$) and so alcohol dose and risk potential are not discussed further.

Sample inhibiting cognitions included: “I wouldn’t respect myself if we had sex now;” “He wouldn’t respect me if we had sex now;” and “Other people would think I’m a slut.” We calculated means for each subscale where high scores indicated high importance. As expected, scores on the subscales were negatively correlated, $r(358) = -.43, p < .001$, though the magnitude of this correlation provides evidence of their relative independence. To calculate a single continuous index of potential ambivalence about having sex, we inputted mean impelling and inhibiting cognition scores into the Griffin formula (Thompson et al., 1995): $((Imp + Inh)/2) - ABS(Imp - Inh)$ where *Imp* refers to impelling cognitions and *Inh* refers to inhibiting cognitions and ABS refers to the absolute value. This formula is commonly used (Conner & Armitage, 2008) and produces the desired properties of an ambivalence score because it takes into account both attitude intensity (represented by the mean) and similarity (represented by the absolute value of the difference). Higher scores reflect more ambivalence (high impelling and inhibiting cognitions) and lower scores reflect a polarized (non-ambivalent) attitude (high impelling and low inhibiting or high inhibiting and low impelling cognitions). Scores could range from -2.00 to 4.00 and did range from -1.90 to 4.00 , indicating acceptable variability.

Felt ambivalence—Participants answered two questions on 7-point scales about their conscious feelings of conflict about having sex with Nick. One item asked “How conflicted are you about whether to have sex with Nick?” with response options $0 = not\ at\ all\ conflicted$, $3 = moderately$, $6 = extremely\ conflicted$. The second item asked “How difficult is it for you to decide whether to have sex with Nick or not?” with response options $0 = not\ at\ all\ difficult$, $3 = moderately$, $6 = extremely\ difficult$. Responses were averaged with higher scores indicating greater conflict, $r(358) = .71, p < .001$.

Abdication to partner—Participants answered two questions about abdicating the decision to have unprotected sex to their partner on 7-point scales ($0 = not\ at\ all\ likely$, $3 = 50/50$, $6 = definitely\ likely$). Items were: “At this point in your encounter with Nick, how likely are you to: “Go along with what Nick wants” and “Let Nick decide how far to go.” Ratings were averaged with higher scores indicating greater abdication intentions, $r(358) = .63, p < .001$.

Unprotected sex—Participants answered two questions on 7-point scales ($0 = definitely\ unlikely$, $3 = 50/50$, $6 = definitely\ likely$) about how likely they would be to have unprotected sex with Nick. Items were: “Rub your clitoris against Nick’s penis without a condom” and “Allow Nick to put his penis inside your vagina without a condom.” Ratings were averaged with higher scores indicating greater unprotected sex intentions, $r(358) = .65, p < .001$.

Partner Familiarity and Stimulus Story Ratings—We included two partner familiarity items to examine whether participants in the previous relationship condition believed that they knew Nick better than those in the new casual partner condition: “At this point, how well do you know Nick?;” and “At this point, how familiar are you with Nick?” Both were rated on 7-point scales ($0 = not\ at\ all$ to $6 = extremely\ well/familiar$). We averaged responses such that higher scores indicated greater familiarity, $r(358) = .83, p < .$

001. A one-way ANOVA revealed that, as expected, mean ratings were higher in the previous relationship condition ($M = 4.28$, $SD = 1.14$) compared to the new casual partner condition ($M = 2.71$, $SD = 1.14$), $F(1, 358) = 168.07$, $p < .001$, $\eta^2_p = .32$.

To assess engagement with the story, two items used in previous studies (Author Citations) were asked at the end of the story: “How much were you able to project yourself into the story?” and “How realistic did you think the story was?” Both were rated on 7-point scales (0 = *not at all* to 6 = *extremely*). Responses were averaged with higher scores indicating greater engagement, $r(358) = .45$, $p < .001$. A one-sample t -test revealed that mean ratings ($M = 4.56$, $SD = 1.14$) were significantly above the scale midpoint of three, $t(359) = 25.98$, $p < .001$, indicating that participants found the story engaging. Engagement did not vary by partner type condition, $F(1, 358) = 1.55$, $p = .21$, $\eta^2_p = .004$.

Analysis Plan

Multi-group path analysis by partner type (new casual partner vs. previous relationship partner) was conducted with MPlus 6 (Muthén & Muthén, 2010) using maximum likelihood estimation procedures. We used the criteria for fit indices suggested by West, Taylor, and Wu (2012) to examine acceptable model fit: SRMR $< .08$, TLI $> .95$, CFI $> .95$, and RMSEA $< .06$. First, all paths were constrained to be equal across the new casual partner and previous relationship partner type groups with the exception of the paths from SDS endorsement to potential ambivalence and to abdication given that we hypothesized differences by partner type. Next, we examined modification indices to determine whether adding additional paths would improve model fit, beginning with paths that would improve fit for both groups. Additional paths were only added if they met two criteria: (1) the path was consistent with theory, and (2) a chi-square difference test revealed that adding the path significantly improved model fit (Kline, 2011). Once the final model was obtained, we fit a model that allowed all paths to freely vary. Again, a chi-square difference test was used to determine whether the fully unconstrained model fit the data better than the initial partially constrained model. If fit was not significantly improved, then the partially constrained model would be retained.

Results

Descriptive Statistics and Distributional Assumptions

Table 1 contains means, standard deviations, and correlations by partner type condition for all variables in the model (Figure 1). All variables met the distributional assumptions of normality reasonably well (no skew statistics greater than ± 1.96 ; Tabachnick & Fidell, 2007). For both groups, the pattern of associations was consistent with the hypothesized model with three exceptions: for the new casual partner group, felt ambivalence was not associated with unprotected sex intentions and was marginally associated with abdication ($p = .09$); for the previous relationship partner group, SDS endorsement was associated with abdication. Importantly, scores on potential and felt ambivalence were moderately and positively correlated, as has been found in previous research (Priester & Petty, 1996; Thompson et al., 1995). Though we did not predict mean differences based on partner type, a series of Bonferroni-corrected independent samples t -tests revealed that potential

ambivalence, abdication intentions, and unprotected sex intentions differed by partner type (see Table 1), whereas SDS endorsement and felt ambivalence did not. The new casual partner group had higher potential ambivalence scores than the previous relationship partner group. Conversely, the previous relationship partner group reported greater abdication and unprotected sex intentions than the new casual partner group.

Model Fit

Because we expected only the paths between SDS endorsement and potential ambivalence and between SDS endorsement and abdication to vary based on partner type, we allowed those paths to freely vary and constrained all other corresponding paths to be equal across groups. Initial model fit was poor: $\chi^2(12) = 48.13, p < .001$; SRMR = .08, TLI = .72, CFI = .83, RMSEA = .13, RMSEA 90% CI (.09, .17). We next examined modification indices, which indicated that fit would be improved with the addition of several paths. We added paths one at a time, beginning with paths that would improve fit for both groups, and conducted chi-square difference tests to ensure that adding each path significantly improved model fit. Two paths were added from potential ambivalence to abdication intentions and unprotected sex intentions, which were constrained to be equal across groups based on our hypotheses and theory regarding the associations between potential ambivalence and subsequent behavioral intentions. The final partially constrained model fit the data well: $\chi^2(10) = 11.86, p = .29$; SRMR = .04, TLI = .98, CFI = .99, RMSEA = .03, RMSEA 90% CI [.00, .09]. See Figure 2.

To ascertain whether allowing the constrained paths to freely vary across groups would significantly improve model fit, we removed all constraints and examined model fit: $\chi^2(4) = 3.27, p = .51$; SRMR = .02, TLI = 1.02, CFI = 1.00, RMSEA = .00, RMSEA 90% CI [.00, .10]. A chi-square difference test revealed that the unconstrained model did not fit the data significantly better than the partially constrained model: $\chi^2_{diff}(6) = 8.59, p > .10$. Thus, we retained the partially constrained model.

As seen in Figure 2, the direct path from SDS endorsement to potential ambivalence was only positive and significant for the new casual partner group and not for the previous relationship group (H1). However, the direct path from SDS endorsement to abdication was significant for both groups, rather than only for the new casual partner group as expected (H2). The direct path from potential ambivalence to felt ambivalence was positive and significant for both groups (H3). The direct path from felt ambivalence to abdication was negative and significant; however, contrary to our expectations, the direct path from felt ambivalence to unprotected sex intentions was not significant in either group (H4). Abdication was significantly positively associated with unprotected sex intentions (H5). Finally, although not initially included in our hypothesized model the paths from potential ambivalence to both abdication and unprotected sex intentions were significant and negative.

Indirect Effects

Indirect effects are presented in Table 2. As expected, potential ambivalence was positively associated with felt ambivalence for both partner types, which was negatively associated with abdication (H6); however, potential ambivalence was not indirectly associated with

unprotected sex intentions through felt ambivalence (H7). As hypothesized, potential ambivalence was negatively associated with unprotected sex intentions via felt ambivalence and abdication in both partner types (H8). Though indirect effects from SDS endorsement to either abdication or unprotected sex intentions through potential ambivalence alone were significant for the new casual partner group, contrary to our hypotheses, for the new casual partner group the indirect effects from SDS endorsement through potential and felt ambivalence to both abdication (H9) and unprotected sex intentions (H10) were not significant. Further, the indirect effects from SDS endorsement through potential and felt ambivalence and abdication to unprotected sex intentions were also non-significant (H11). Finally, the indirect effect from SDS endorsement through abdication to unprotected sex intentions was significant and positive for the new casual partner condition (H12), but also unexpectedly for the previous relationship condition.

Discussion

The present study demonstrated the importance of women's ambivalent feelings about having sex for abdicating sexual decisions to a male partner and ultimately for having unprotected, that is, condomless, sex. In addition, this study showed that endorsing the SDS complicates the sexual decision making process by at times being associated with the likelihood of both greater and lesser risk of engaging in unprotected sex, especially when a woman is contemplating having sex with a new casual partner.

Overall our hypotheses concerning the role of ambivalence in women's sexual decision making were supported. Consistent with H3, potential ambivalence was positively associated with felt ambivalence – conscious feelings of conflict and uncertainty – about having sex, as found previously (e.g., van Harreveld, Rutjens et al., 2009). To the extent that a woman has in-the-moment conflicting cognitions about having sex, she is likely to also experience conscious feelings of conflict or discomfort about doing so. Although we cannot establish that potential ambivalence caused felt ambivalence, researchers have conceptualized potential ambivalence as preceding felt ambivalence (Holbrook & Krosnick, 2005). This is because potential ambivalence represents the conflicting beliefs that one becomes increasingly aware of when making a decision. When a woman is faced with the decision about whether or not to have sex, the pros (impelling cognitions) and cons (inhibiting cognitions) should be salient and contribute to felt ambivalence.

Through a lessened endorsement of abdication to a partner's wishes, a woman ensures greater control over the decision making process, and results showed that ambivalence was negatively associated with abdication. In partial support of H4, felt ambivalence was negatively associated with abdication, though not with unprotected sex intentions; and in support of H5 abdication was positively associated with unprotected sex intentions. Potential ambivalence was negatively associated with unprotected sex intentions via its negative associations with felt ambivalence and abdication (H8). Thus, women with heightened potential and felt ambivalence may have been demonstrating their desire not to incur possible negative consequences of having unprotected sex. Future research should continue to explore associations between ambivalence and sexual risk decisions.

These results suggest that interventions aimed at reducing sexual risk might be targeted at encouraging women to be vigilant towards their ambivalent feelings and to subsequently be assertive about suggesting sexual alternatives or ending a sexual encounter before it progresses to more heated sexual activity. If women can identify their conflicting cognitions early in a sexual encounter (e.g., I am aroused but I'm concerned that I'll regret it if we have sex) or felt ambivalence about having sex, they should be encouraged to express their hesitancy since this felt ambivalence leads to lowered abdication and likelihood of having unprotected sex. Norris et al. (2009a), in demonstrating that sexual arousal early in an encounter may increase the risk for unprotected sex, note the need to teach women to assertively exert personal control at the outset of a sexual interaction with a potential male partner. Unfortunately, many women believe that they do not have a right to make their own decisions about stopping foreplay or that they do not have the tools to do so (Rickert, Sanghvi, & Wiemann, 2002) even though being sexually assertive can decrease their likelihood of acquiring an STI through insisting on condom use (Stoner et al., 2008). Interventions should thus target increasing women's assertiveness about expressing their concerns during sexual encounters.

We added negative paths between potential ambivalence and both abdication and unprotected sex intentions to our original hypothesized model based on modification indices. Previous research indicates that potentially ambivalent people are highly responsive to situational cues making their behavioral responses polarized or extreme in response to salient cues (Bell & Esses, 1997, 2002; Katz & Hass, 1988; MacDonald & Zanna, 1998). We cannot determine the particular cues that participants were responding to when they indicated their lower intentions to abdicate and to have unprotected sex. However, given the negative association between potential ambivalence and both abdication and unprotected sex intentions early in the sexual encounter (when the couple was still partially clothed), inhibiting cues, such as the prospect of losing self-respect, may have been most salient and thus had the strongest impact on behavioral intentions. It is possible that impelling cues, such as arousal, would become more salient as the situation progressed; arousal has been shown to predict sexually risky behavior (e.g., Abbey, Saenz, & Buck, 2005; Davis et al., 2007; George et al., 2009; Norris et al., 2009a). Future research should investigate how cue salience and the resulting ambivalence might change over the course of a sexual encounter and whether these changes differentially predict abdication and risk intentions. Qualitative studies might be especially useful for determining which types of impelling and inhibiting cognitions are particularly salient and how these might differ for women of different ages and cultural backgrounds. In-depth probing might also shed light on what point in a sexual encounter women feel conflicting cognitions.

Our hypothesis (H1) that SDS endorsement would be positively associated with potential ambivalence only for new casual partners was supported. This lends support to the idea that for women who have sex outside of a committed relationship feelings of desire are pitted against concerns about losing self-respect or respect by others, including one's partner. However, the SDS is less relevant for sex that is closer to the ideal of a committed relationship, such as sex with a previous relationship partner. Thus, for women who have sex with previous relationship partners, SDS endorsement and ambivalence should be, and were for our sample, unrelated. In addition, the indirect negative effect of SDS endorsement on

unprotected sex intentions through potential ambivalence was also significant in the new casual partner condition, making it appear as though SDS was protective against having unprotected sex. It is possible that the conflicting cognitions women had about having sex (that is, their potential ambivalence) led them to a decreased desire for sex regardless of whether a condom was present.

Conversely, SDS endorsement was also indirectly positively associated with unprotected sex intentions via its positive association with abdication (H2, H12) for both partner types, though only hypothesized for the new casual partner condition. This further demonstrates the dilemmas that women who endorse the SDS face when making sexual decisions. For women considering sex with a new casual partner, SDS endorsement can lead to a very difficult decision – one that pits beliefs that women should abdicate to her partner's wishes and so could lead to greater unprotected sex likelihood against general ambivalence about sex and so could lead to lesser unprotected sex likelihood. In contrast, for women considering sex with a previous relationship partner, though SDS endorsement was not associated with ambivalent feelings, SDS endorsement was associated with greater unprotected sex risk via abdication. Given that the SDS is based on the idea that women should be sexually submissive and men dominant, it is logical that women who endorse the SDS would be more likely to abdicate sexual decision making to their male partners even if it leads to having unprotected sex. Although not all men dislike using condoms, condom use resistance by men is common (Davis, Stappenbeck et al., 2014) and seen as normative (Davis, Schraufnagel et al., 2014). Further, this association is consistent with findings that adherence to traditional gender roles in intimate relationships (e.g., male dominance and female submission) is quite prevalent (Sanchez et al., 2012). Endorsing the SDS creates a dilemma in which maintaining one's virtue is pitted against submitting to a male partner's wishes. How some women resolve this conflict is by initially resisting a man's sexual advances, but ultimately acquiescing to him.

Decreasing SDS endorsement would likely have beneficial effects for both women and men. For instance, women would no longer be placed in the position of having to appear virtuous while simultaneously squelching their own desires by acquiescing to those of a male partner. Men, too, would benefit by not having to ascribe to a masculine ideal that prioritizes quantity and frequency of sexual encounters to the detriment of respecting the wishes of female partners and/or developing a committed, loving relationship. Evidence that SDS endorsement, and endorsement in traditional gender roles more broadly, is not beneficial for sexual relationships (Sanchez et al., 2012) points to the need for interventions aimed at reducing SDS endorsement.

Finally, women who imagined having sex with a previous relationship partner indicated a greater willingness to abdicate to the partner and to have unprotected sex, perhaps due to their feelings of familiarity and knowledge of their partner. This is consistent with research indicating that previous relationship partners are perceived as less risky compared to casual partners (e.g., Misovich et al., 1997; Norris et al., 2013) and, especially if the break up was amicable, can be imbued with feelings of trust and safety (Bajos & Marquet, 2000; Bourne & Robson, 2009; Misovich et al., 1997). Despite these perceptions, previous relationship partners can be risky because the woman may not have any direct knowledge of the man's

sexual behavior since their break up. Our findings reinforce the importance of developing sexual risk reduction interventions targeting partner perceptions (Norris et al., 2013) because educating women about the riskiness of previous relationship partners may help women to develop effective self-protection strategies.

Limitations and Future Directions

This study had several limitations. Hypothetical scenarios cannot include all factors that may be relevant in real life sexual situations. Although in general participants reported being able to project themselves into the experimental story, there was variability in their ability to do so; we also do not know to what extent their responses might have been influenced by socially desirable responding. Further, we paused the sexual scenario to assess our measures of interest when in real life sexual situations may progress quickly and not allow for the reflection on thoughts and feelings facilitated by our methodology. For instance, had we measured felt ambivalence prior to potential ambivalence, felt ambivalence ratings may have been lower given that women would not necessarily have reflected on all of the pros and cons of having sex as was required in completing the potential ambivalence measure. Though the majority of our variables were measured in the hypothesized chronological sequence, we cannot establish causal associations. Additionally, even though partner type was examined, participants were not randomly assigned to partner condition because data were combined from two experiments. However, there were no differences in demographics or background SDS endorsement between the two groups, and participants in both studies were recruited in an identical manner, thus allowing for comparisons between them. Finally, we assessed participant intentions to engage in abstinence to their sexual partner and to have unprotected sex, but it is not clear whether intentions would predict actual behavior. Intentions tend to be good predictors of health behaviors, but do not do so perfectly (Sheeran, 2002; Turchik & Gidycz, 2012). Thus, it would be useful to explore whether intentions in the laboratory map onto behaviors outside the lab.

An additional limitation is generalizability. Our participants were predominantly white, heterosexual, young, sexually experienced, and legal-age non-problem drinkers. These recruitment criteria ensured that our sample was at high risk for exposure to STIs, especially with regard to the high number of sexual partners reported, and one could argue that such a high risk sample should be targeted for this type of research. Nevertheless, our recruitment criteria limit generalizability to those who possess these characteristics. Future research should target other high risk groups, such as adolescents or some ethnic minority groups. Our sample also agreed to participate in a study on sexuality, which tends to indicate more liberal attitudes and more sexual experience compared to participants who may not have chosen to participate (Strassberg & Lowe, 1995). This, in conjunction with the relatively high number of sex partners reported, may have resulted in low mean SDS endorsement, but it is also possible that SDS endorsement was artificially low because of socially desirable responding. Unfortunately, we did not collect social desirability data and so cannot determine the extent to which the two variables are related. Little research on the SDS has employed implicit measures (Sakaluk & Milhausen, 2012) and future studies would benefit from the use of such measures as the implicit associations test (Greenwald, McGhee, & Schwartz, 1998), to avoid this methodological pitfall. Despite this possible shortcoming in

assessing the SDS, we found it to be significantly related to ambivalence, as well as to abdication and unprotected sex intentions.

Regarding future research, some have drawn parallels between the construct of felt ambivalence and cognitive dissonance (for discussion see van Harreveld, van der Plicht, et al., 2009), though they have noted that dissonance usually arises after one has partaken in a behavior that is inconsistent with a cognition, whereas potential ambivalence consists of conflict among cognitions, which results in psychological discomfort, that is, felt ambivalence. Future work should continue to explore the interrelationships among felt ambivalence and dissonance, and their impacts on sexual decisions. Further, Janssen, Vorst, Finn, and Bancroft (2002) proposed that sexual inhibition and sexual excitation underlie the sexual response and associated sexual behaviors, which share parallels with the inhibiting and impelling cognitions, respectively, that we utilized in the present investigation. Future work should also explore interrelationships between underlying behavioral approach/excitation and avoidance/inhibition tendencies and the types of impelling and inhibiting cognitions that can comprise potential ambivalence.

Conclusions

Despite feminist gains over the past several decades, the SDS still holds sway among young women (Sanchez et al., 2012) although there may be increasing acceptance of sex outside of committed relationships (Bordini & Sperb, 2013). In the context of a sexual encounter, women who endorse the SDS, even at a relatively low level, may find themselves in a quandary about how to maintain at least the appearance of being virtuous while simultaneously satisfying their own sexual desires or the desires of their partner. These dilemmas may become particularly salient in a sexual encounter with a new casual partner.

This study provides evidence that SDS endorsement can have somewhat paradoxical effects, demonstrating how insidious its effects can be. On the one hand, believing in the SDS can lead to ambivalence about having sex and may appear to lessen a woman's risk of abdicating to a sexual partner and engaging in unprotected sex. However, this process might reflect how the SDS can lead to women not wanting to have sex in general, whether with or without a condom and thus may interfere with having a fulfilling sex life. On the other hand, we found that SDS endorsement may put a woman at heightened risk for having sex without a condom through increasing the likelihood of her abdicating sexual decisions to a partner. In the long run, an ideal solution would be at the cultural level to decrease endorsement of the SDS by promoting egalitarian male-female sexual relationships. Until that occurs, interventions should be created to help women develop strategies to address their ambivalent feelings. That is, women should be encouraged to take control of their sexual experiences early on in an encounter. To the extent that women can from the start express their own desires and negotiate in a way that ensures their sexual safety, they will enhance the possibility of positive sexual outcomes.

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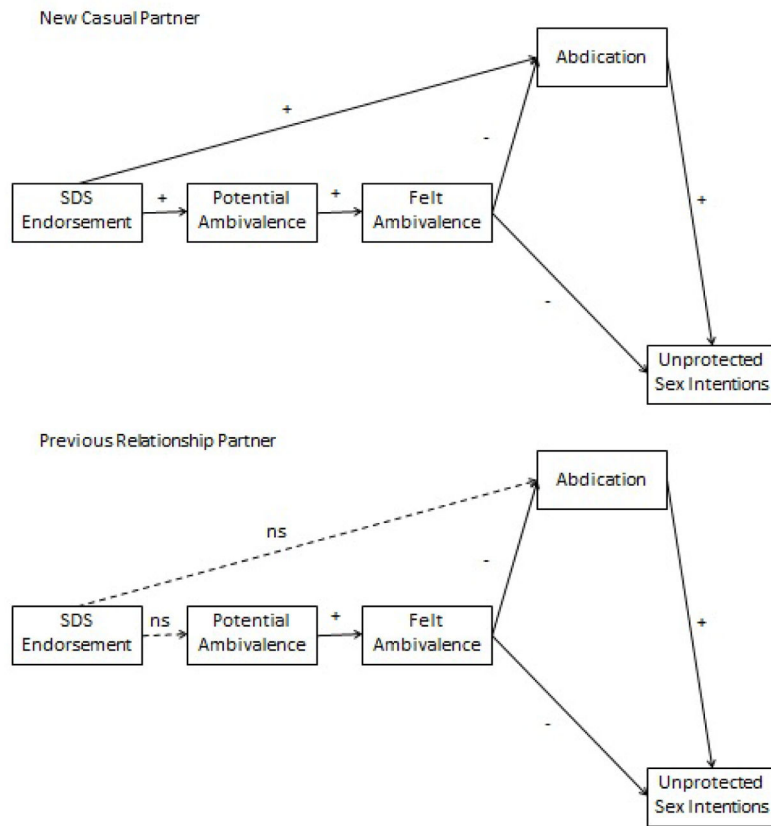


Figure 1. A multi-group analysis was conducted based on partner type (new casual partner vs. previous relationship partner). The path between SDS endorsement and potential ambivalence was expected to differ based on partner type. All other paths were not expected to differ based on group membership and so corresponding paths were constrained to be equal across groups. For simplicity, error terms are not shown.

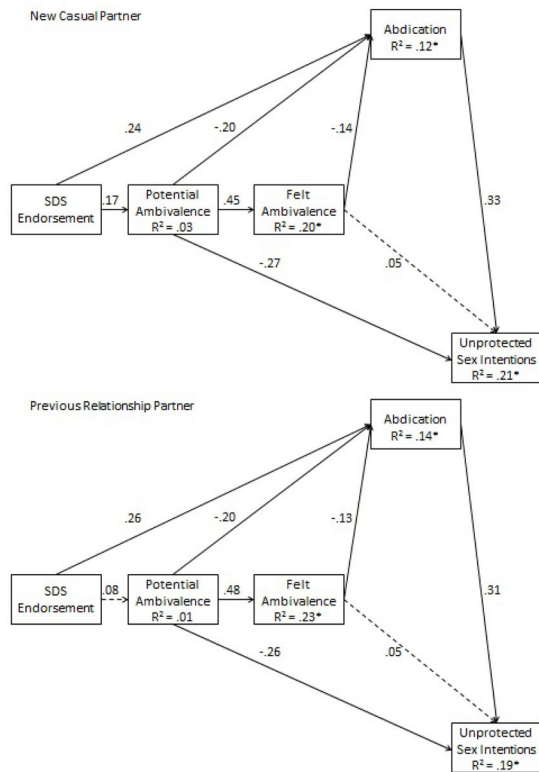


Figure 2. The final partially constrained model fit the data well. Values are standardized regression estimates. Corresponding paths were constrained to be equal across groups with the exception of the paths between SDS endorsement and potential ambivalence and between SDS endorsement and abdication. Solid lines represent significant paths, p 's < .02; whereas dashed lines represent non-significant paths, p 's > .26. For R^2 values, * p < .001.

Table 1

Descriptive Statistics and Correlations by Partner Type Condition

	1.	2.	3.	4.	5.
1. SDS Endorsement	--	.17*	.11	.19**	.03
2. Potential Ambivalence	.08	--	.43***	-.20**	-.33***
3. Felt Ambivalence	.12	.49***	--	-.13†	-.06
4. Abdication to Partner	.23**	-.27***	-.28***	--	.29***
5. Unprotected Sex Intentions	-.001	-.30***	-.22**	.45***	--
Mean (SD) by Group					
New Casual Partner Group	1.87 (.60)a	.90 (1.20)a	2.28 (1.60)a	1.76 (1.63)a	1.83 (1.64)a
Previous Relationship Partner Group	1.86 (.58)a	.49 (1.22)b	2.09 (1.57)a	2.29 (1.69) ^b	2.59 (1.87) ^b

Note:

† $p = .09$,

* $p < .05$,

** $p < .01$,

*** $p < .001$.

Values above the diagonal are correlations for the new casual partner group ($n = 183$), whereas values below the diagonal are correlations for the previous relationship partner group ($n = 177$). For means, differing subscripts within a column reflect significant group differences (p 's $< .01$) by outcome measure.

Table 2

Summary of Estimated Standardized Indirect Effects for Partner Type Groups

Predictor and Path	Outcome			
	Abdication Intentions		Unprotected Sex Intentions	
	B	SE	B	SE
<u>New Casual Partner Group</u>				
SDS total indirect effects	-.04*	.02	.02	.04
SDS to Abd	--	--	.08**	.03
SDS to PA	-.03*	.02	-.05*	.02
SDS to PA and Abd	--	--	-.01 [†]	.01
SDS to PA and FA	-.01	.01	.004	.01
SDS to PA, FA, and Abd	--	--	-.003	.002
PA total indirect effects	-.06*	.03	-.07*	.03
PA to Abd	--	--	-.07***	.02
PA to FA	--	--	.02	.03
PA to FA and Abd	--	--	-.02*	.01
<u>Previous Relationship Group</u>				
SDS total indirect effects	-.02	.02	.06	.04
SDS to Abd	--	--	.08***	.03
SDS to PA	-.02	.02	-.02	.02
SDS to PA and Abd	--	--	-.01	.01
SDS to PA and FA	-.01	.01	.002	.003
SDS to PA, FA, and Abd	--	--	-.002	.002
PA total indirect effects	-.06**	.03	-.06*	.03
PA to Abd	--	--	-.06***	.02
PA to FA	--	--	.02	.02
PA to FA and Abd	--	--	-.02*	.01

Note:

[†]
 $p < .06$,*
 $p < .05$,**
 $p < .01$,***
 $p < .001$.

Values are standardized estimates (B) and standard errors (SE). Dashed lines represent direct effects (see Figure 2) or redundant paths.

Abbreviations: SDS = sexual double standard endorsement, PA = potential ambivalence, FA = felt ambivalence, Abd = abdication. Corresponding paths were constrained to be equal across groups with the exception of the paths between SDS endorsement and potential ambivalence and between SDS endorsement and abdication.