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Not intending but somewhat willing: The influence of visual primes on risky sex decisions

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Abstract

Objectives—This article investigates a potential mechanism underlying the “sexually conservative puzzle” (the scenario where people reporting little to no casual sex intentions nevertheless go on to engage in casual sex).

Methods—In two experiments, we tested whether people reporting no behavioral intentions (BI) for casual sex were nevertheless more responsive to risk-conducive cues, when compared to those with some BI. Responsiveness to cues was assessed in terms of increases in behavioral willingness (BW) for casual sex.

Results—In Study 1, subliminal priming of sexual images (vs. control images) increased the casual sex BW of male undergraduates—but only among those who had previously reported no BI for casual sex in a baseline survey. In Study 2, these results were replicated using supraliminal priming with a more diverse online sample; effects were not moderated by age, education, or relationship status.

Conclusions—Overall, these findings suggest that although sexually conservative people often do not plan on having sex (i.e., they have no BI), for some, their reactive, context-sensitive decision-making (i.e., their BW) can be swayed in the presence of risk-conducive cues.

During the latter days of the sexual revolution, Gerrard (1982) collected data that indicated a puzzling situation: sexually conservative individuals were having a lower frequency of sex, but, when they did have sex, they were engaging in riskier sexual practices. Specifically, she found that among her sample of unmarried, sexually active female college students, higher scores on Mosher’s (1966) sex-guilt scale were associated with less effective contraception. There is evidence that this seemingly paradoxical finding still holds true today, with some recent findings indicating that conservative perspectives about sex are associated with more risky sexual behavior (i.e., behaviors that increase the risk of unplanned pregnancies and STIs). For instance, markers of sexually conservative attitudes have been prospectively

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related to less condom use (Rosenbaum, 2009) and less testing for STIs (Brückner & Bearman, 2005).

An intriguing element to this paradox is the question of why sexually conservative individuals are having risky sex at all. In other words, it appears that some individuals may be reporting low or no intentions for risky sex, and then having risky sex anyway—a scenario that we are calling the “sexually conservative puzzle.”¹ In order to examine the cognitive mechanisms underlying this puzzle, we drew upon the Prototype-Willingness (P/W) model (Gibbons, Gerrard, & Lane, 2003). This modified dual-process model distinguishes two types of proximal antecedents to risk behavior: behavioral intentions (BI), which are based on planful decision-making (see Fishbein & Ajzen, 1975), and behavioral willingness (BW), which is based on more reactive, context-sensitive decision-making (Gibbons et al., 2004). Among younger adolescents, BW has been found to perform better than BI when predicting health-risk behaviors, such as alcohol use (Andrews, Hampson, & Peterson, 2011) and smoking (Rivis, Sheeran, & Armitage, 2010). Yet additional research with the P/W model suggests that the relative predictive abilities of BW vs. BI vary according to age and experience (Gerrard et al., 2008). For instance, Pomery and colleagues (2009) found that BW was a better predictor of change in substance use during early adolescence (age 12–13), but BI was a better predictor by middle adolescence (age 15–17). Thus, for most populations, by late adolescence and young adulthood, BW is no longer the best predictor of substance use.

But what about other health-risk behaviors, for which young adults have less experience? National statistics show that approximately 37% of men in their early twenties have had two or fewer female sexual partners in their lifetime (Mosher, Chandra, & Jones, 2005). Likewise, only 10% of adult males in the United States report having a casual sex encounter within the last year (Smith, Marsden, Hout, & Kim, 2010). These figures suggest that there may be a substantial proportion of adults who have not had enough experience with potential casual sex encounters to develop a clear intention for the behavior. Such people, therefore, may not be *intending* to have casual sex, but may be *willing* to do so under certain circumstances. Furthermore, such people may be at greater risk, as they may not make plans for protection (e.g., they will not bring condoms with them; see Gibbons et al., 2003).

The sexually conservative puzzle could, therefore, be explained if adults with no BI for casual sex nevertheless have some BW. Specifically, since BW reflects a reactive, context-sensitive decision-making (i.e., heuristic processing), one could expect it to increase more than BI in the presence of risk-conducive cues (Gibbons et al., 2003). In particular, compared to individuals with stronger intentions (and, therefore, stronger willingness) to have sex, BW would be more malleable, and would increase more among individuals with no BI for casual sex—i.e., those with more conservative perspectives about sex.

¹We are calling this type of behavior “puzzling” based on the assumption that pregnancy and sexually transmitted infections are not desirable outcomes for most young, unmarried adults.

Contextual Cues, Individual Differences

Our explanation of the sexually conservative puzzle is based on the premise that contextual, risk-conducive cues can enhance some people's BW for risk behavior. Supporting this premise is substantial evidence from health psychology that risk cognitions vary by context (e.g., Blanton & Gerrard, 1997; Gerrard et al., 2006; Roberts, Gibbons, Gerrard, & Alert, 2011). Additional support for the influence of contextual cues comes from the priming literature. Priming is defined as the incidental activation of knowledge structures by the current situational context (Bargh, Chen, & Burrows, 1996). Studies using priming demonstrate that the mere exposure to risk-inductive cues can increase associated risk cognitions and behavior, such as when alcohol advertisements increase aggressive cognitions (Bartholow & Heinz, 2006), or when food advertisements increase automatic eating behavior (Harris, Bargh, & Brownell, 2009). Moreover, effects on risk cognitions and behavior can appear even when risk cues are presented subliminally (Rotenberg et al., 2005; Subra et al., 2010).

The priming literature also supports a second premise to our explanation, which is that there are individual differences in responsiveness to risk cues. Most of this work examines individual differences in terms of pre-existing beliefs, conditions and expectations (e.g., Bartholow & Heinz, 2006; Gardner, Gabriel, & Lee, 1999). For example, priming with food-relevant stimuli can decrease the accessibility of dieting concepts, but only among dieters (Stroebe, Mensink, Aarts, Schut, & Kruglanski, 2008). Accordingly, we may expect a sex prime to have differential effects, based on a person's previously-reported BI: Those with higher BI for casual sex will have BW that is correspondingly high—and so shouldn't increase much further in the presence of sex-relevant stimuli; however, individuals with no BI for casual sex may have BW that is more malleable, such that their reported BW will vary according to the presence vs. absence of sex-relevant stimuli.

That BW could be more malleable among low-BI individuals is consistent with two findings in the personality literature: First, when given a choice, high sex-guilt men avoid looking at sexually attractive stimuli more than low sex-guilt men (Love, Sloan, & Schmidt, 1976; Schill & Chapin, 1972); second, when *required* to look at sexually attractive stimuli, high sex-guilt men report equivalent amounts of sexual arousal as low sex-guilt men (Gibbons & Wright, 1981; see Christopher & Roosa, 1991, on the association between sex-guilt and sexually conservative behaviors). Together, this literature converges to suggest that sexually conservative men may not engage in casual sex because they have avoided thinking about the possibility. This sort of optional avoidance of sexual cues is also demonstrated by findings that, for those in relationships, implicit cognitive mechanisms frequently operate to reduce attention to attractive alternative partners—thereby reducing threats to existing relationships (Maner, Gailliot, & Miller, 2009). However, an implication of the overall pattern is that, when inescapably confronted with sexual cues, no-BI individuals are mostly likely to demonstrate increased responsiveness.

The Current Research

For the two studies reported here, our hypothesis was that compared to people with some BI for casual sex, people who reported no BI for casual sex would be more responsive to risk-

inductive cues; i.e., show a greater increase in BW for casual sex. We focused on men, based on past literature indicating that males have greater willingness for risky sex (Thornton, Gibbons, & Gerrard, 2002) and respond more positively to subliminal sex cues (Gilliath, Mikulincer, Birnbaum, & Shaver, 2007). In Study 1, male undergraduates were subliminally primed with either sexual or control pictures, and change in BW was assessed. Study 2 was conducted to replicate the results with a more diverse sample of men, controlling for potentially confounding factors, and using a more externally valid type of priming (i.e., supraliminal priming).

Study 1: Subliminal Priming of Sex vs. Control Cues

Methods

Participants—Participants were male undergraduates who had previously completed a baseline survey. This baseline survey was conducted as part of a large, mass-testing session, and included BI and BW items, amongst many unrelated questionnaires. Seventy-nine participants who responded to the BI and BW questions at baseline (T1) signed up for the lab study (T2), where they were randomly assigned to an experimental or control condition. The data of three students were excluded due to computer error, and one student's data were excluded because he reported seeing the subliminal primes. Therefore, a total of 75 male students was available for analysis.

Measures (parentheses indicate time of measurement)

BI (T1, T2): BI for casual sex was assessed with a single face-valid measure: “In the next 6 months, do you intend to have sex (intercourse) with someone you don't know very well or that you've just met (e.g., at a party)?” (1 = *definitely not*, 7 = *definitely*). As others have done (e.g., Chassin et al., 2002; Tyc et al., 2005; 2009), our assumption was that any response besides “definitely not” suggests some degree of intention or expectation (for the sake of clarity, we will call it “some” BI). Therefore, this measure was dichotomized: students who reported a value of 1 were coded as *no-BI* and those who reported a value of 2 or greater were coded as *some-BI*.

BW (T1, T2): BW was assessed in the usual manner (Gibbons et al., 2003), whereby a risk-conducive scenario is briefly described and individuals are asked to report on a likert scale how willing they would be, under those circumstances, to engage in the given risk behavior. Here, the vignette described running into an attractive acquaintance at a party and then ending up at his/her apartment (the vignette also asked students to assume they were not in a steady or serious dating relationship). Students were asked: “How willing would you be to stay at his/her apartment and...have oral sex?...have sex (intercourse)?...use a method like withdrawal (withdrawing the penis before ejaculation)? (1 = *not at all willing*, 7 = *very willing*). For both T1 and T2, these three items were averaged to form the measure of BW for casual sex (T1 $\alpha = .79$, T2 $\alpha = .86$).

Experimental Procedure

Priming: Students were run individually by a male experimenter who explained that they would be engaging in a series of unrelated computer tasks. The first was a lexical-decision

task: The computer sequentially presented participants with a series of letter strings, half of which were real words (e.g., *aloof*) and half of which were nonwords (e.g. *darrots*); the participants' task for each trial was to classify the letter string as a word or nonword by pressing the appropriate key (labeled 'word' and 'nonword') as quickly as possible. This lexical-decision task allowed us to present our picture primes: Each letter string was preceded by a masked subliminal prime, whose content varied according to priming condition.

Participants in the sex-prime condition were exposed to pictures of attractive female models, posing provocatively in bikinis. For each trial, the computer program randomly displayed one of three similar pictures, so that the primes were presented in a random sequence across trials. Participants in the control-prime condition were exposed to pictures from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 2008), chosen for being high on arousal, having positive valence, and *not* containing sexual content (e.g., a lightning bolt). As with the sex-prime condition, the computer program randomly displayed one of these control images at each trial.

There were 120 trials overall. On each trial, the picture prime was presented for 8 ms, a period which, with pattern masking, is generally too brief for people to be aware of an image (Bargh & Chartrand, 2000). A fixation cross was presented for 1,000 ms between each trial.

Cognitive measures: Following the lexical-decision task, the computer indicated that a second, ostensibly unrelated task (concerning "cognitions and decision-making") was about to begin. The computer then presented students with the same BW and BI questions asked at baseline, and students used the keyboard's number pad to respond. When this task was complete, the experimenter re-entered the testing cubicle and provided a funneled debriefing, in which he probed for suspicion and awareness of the primes before revealing the full purpose of the study.

Results

At T1, BI for casual sex was low, with 28 students (37%) in the no-BI group, and 47 (63%) in the some-BI group. T1 BW for casual sex ($M = 4.04$, $SD = 1.70$) was higher than T1 BI (for the non-dichotomized scale, $M = 2.80$, $SD = 1.90$; the difference between the continuous scales was significant, $F[1,74] = 33.23$, $p < .001$). For the overall sample, T2 BW ($M = 4.32$, $SD = 1.81$) was not significantly different from T1 BW ($p = .15$). Among the no-BI group, T1 BW did not significantly differ between the two experimental conditions ($p > .20$).

To examine change in BW from T1 to T2, a repeated-measures analysis of variance (ANOVA) was conducted, testing the effects of experimental condition (sex-prime vs. control-prime) and T1 BI (no-BI vs. some-BI). There was a main effect of BI ($F[1, 71] = 24.48$, $p < .001$), but no significant Condition \times BI interaction ($p > .73$). As expected, a significant three-way Time \times Prime Condition \times BI interaction indicated that the effect of experimental condition on BW varied as a function of T1 BI ($F[1, 71] = 4.16$, $p = .045$; see Figure 1).²

Follow-up with simple-effects analyses were conducted to examine the change in BW at each level of BI and Condition. These revealed a significant BW increase among the no-BI/sex-Condition group ($F[1, 12] = 6.40, p = .03$); however, BW was not statistically significant in the no-BI group/control condition, or in either of the some-BI groups ($ps > .42$). Thus, the no-BI individuals reported increased casual sex BW, but only if they were in the sex-prime condition.

Study 1 Discussion

Study 1 results supported our hypothesis that men with no BI for casual sex would demonstrate an increase in BW for casual sex after viewing the sexual cues. Several alternative explanations for these findings can be ruled out. The results cannot be explained by regression to the mean, since the change in BW only occurred for the no-BI/sex-prime group, and not for the no-BI control group. Likewise, the difference between the sex-prime and control-prime conditions indicates the importance of the cues being of a sexual nature. In addition, since the cues were presented subliminally, it is unlikely that the effects were due to experimental demand.

Study 1 findings are, however, somewhat limited in terms of generalizability. Specifically, these participants (students at an elite university) were extremely similar in age, education, and marital status. Therefore, in Study 2, we sought to replicate our findings in a more diverse sample, where we could measure (and control for) more demographic variables. Our operational definition of risky (casual) sex changed accordingly, to be appropriate for a somewhat older population. Our expectation was that controlling for demographic factors, we would find the greatest BW for the no-BI/Sex prime group. In order to obtain a more diverse sample, recruitment occurred via Amazon Mechanical Turk, a web service that allows researchers to post paid tasks online. Furthermore, although subliminal priming paradigms have high experimental control, they tend to lack external validity. Therefore, we allowed Study 2 participants to be consciously aware of the priming pictures: All participants viewed pictures as if they were evaluating a commercial advertisement, such that stimuli and exposure durations were similar to what individuals would encounter in the real world.

Study 2: Replication with Supraliminal Priming

Methods

Participants—Participants in Study 2 were adults living in the United States who were recruited through Amazon Mechanical Turk. At T1, participants completed an online survey, which included demographic questions, BI and BW items, picture ratings, and other, unrelated questionnaires. Approximately three weeks later (T2), they were re-contacted, and asked to complete a second survey of similar format. Of the 171 men who completed the

²BW and the non-dichotomized BI scale were correlated ($T1 r = .47$). Theoretical reasons dictated that BI should be an independent variable and BW should be the dependent variable. However, to test the specificity of our results, a second repeated-measures ANOVA was conducted in which T1 BW was treated as an independent variable, and BI from T1 to T2 was the dependent variable. For this analysis, the three-way Time \times Condition \times BW interaction was not significant ($p > .70$); nor were the effects of time, condition, or the Time \times Condition interaction ($ps > .15$).

first survey, 139 responded at T2 (81% retention).³ Data from 27 individuals were excluded due to large amounts of missing responses (> 30% of items unanswered) or the inability to match T1 and T2 responses. The remaining sample of 112 was used for the analyses (compared to other Mechanical Turk studies, this constitutes a relatively good follow-up response; see Buhrmester, Kwang, & Gosling, 2011).

Picture Rating—Both T1 and T2 surveys included a picture rating component, in which participants were presented with a series of paired pictures. For each pair, a caption read: “Imagine you were evaluating an ad campaign. Please indicate which of the pair you prefer.” At T1, the pictures were of neutral images (e.g., brick walls, bowls of fruit), and the same pictures were viewed by all participants. At T2, two picture pairs were viewed by all participants (ocean waves and fireworks); three other picture pairs varied between subjects, according to condition. In the sex-prime condition, men viewed (pairs of) pictures of attractive and scantily-clad female models. In the control-prime condition, men viewed non-sexual images which, during pre-testing, had received equivalent ratings on the dimensions of *pleasant* and *exciting*.

Measures (parentheses indicate time of measurement)

BI (T1, T2): The landscape of risky (casual) sex was expected to be somewhat different among these older adults. Therefore, this time casual sex involved “cheating.” BI was assessed with the question, “In the next month, do you intend to have sex with someone who is not your significant other?” (1 = *definitely not*, 7 = *definitely*). As in Study 1, our assumption was that any response besides “definitely not” suggests some degree of intention; therefore, BI was dichotomized such that participants who reported a value of 1 were coded as *no-BI* and those who reported a value of 2 or greater were coded as *some-BI*.

BW (T1, T2): In order to convey a risk-conducive situation that would be appropriate for older adults, the following vignette was used to assess BW for casual sex:

Imagine a party at which you meet someone to whom you are very attracted. After talking throughout the evening, it is clear that this person is interested in having sex with you, but you are currently in a committed relationship. However, you are confident that your significant other would never find out.

Participants were then asked: “How willing would you be to have sex with this person? (1 = *not* at all willing, 7 = very willing).

Demographic information (T1): Three factors that could confound the hypothesized effects were included in the model: age, education (both dichotomized based on a mean split due to non-normal distributions), and relationship status (coded to indicate being in an exclusive relationship or not). Past studies have found these three factors are related to sexual behavior (Chandra, Mosher, Copen, & Sionean, 2011).

³Although our focus was on men, women also participated in Study 2 (those in the sex-prime condition viewed pictures of male models). However, in addition to significantly lower levels of BW among women overall, an interaction emerged involving gender that was hard to interpret and beyond the scope of this paper. The implications of these gender differences are addressed in the discussion.

Results

Age ranged widely, from 18 to 57 years ($M = 35.6$, $SD = 10.2$). Sixty-seven individuals were in committed relationships (60%); 53% of the men had completed a bachelor's degree or higher. T1 BI was low, with 81 participants (72%) in the no-BI group, and 31 (28%) in the some-BI group (for the non-dichotomized scale, $M = 1.90$, $SD = 1.75$). Compared to BI, T1 BW for casual sex was somewhat higher ($M = 2.19$, $SD = 1.69$; $F[1, 111] = 2.91$, $p = .09$). Interestingly, T1 BI was lower among men who were in committed relationships ($p < .001$), but there was no difference in T1 BW ($p = .15$). Thus, compared to men who were not in committed relationships, those in committed relationships reported greater casual sex BW than casual sex BI (the Measure \times Relationship interaction was significant: $F[1, 110] = 7.75$, $p = .006$). Among the no-BI group, T1 BW did not significantly differ between experimental conditions ($p > .48$).

A repeated-measures ANOVA was conducted, controlling for demographic factors and testing the effects of experimental condition (sex-prime vs. control-prime) and T1 BI (no-BI vs. some-BI) on BW for sex. In terms of demographic variables, there were no significant effects of age, education or relationship status. As in Study 1, there was a main effect of BI ($F[1, 105] = 21.40$, $p < .001$) but no Condition \times BI interaction. Most important, as expected, the three-way Time \times Condition \times BI interaction was significant ($F[105] = 5.86$, $p = .02$; see Figure 2).⁴

Next, simple-effects analyses examined BW at each level of Condition and BI (still controlling for demographics). As expected, there was a significant increase in BW for the no-BI/sex-prime group ($F[1, 36] = 6.98$, $p = .01$); however, there were no significant effects for any of the other groups (in fact, the prime effect was marginal in the opposite direction among the some-BI group). Post-hoc analyses were also conducted, to determine whether the interaction effects were further moderated by the covariates (age, education, or relationship status). These analyses failed to detect any significant moderation (all $ps > .39$).

General Discussion

In two studies, we found that, compared to those with some baseline BI for casual sex, individuals with no baseline BI reported increased BW for casual sex—but only if they were exposed to a sexual prime. This pattern appeared both when priming was subliminal (Study 1) and supraliminal (Study 2), and remained after controlling for age, education, and relationship status (Study 2).

Overall, these findings suggest that more sexually conservative men are more swayed by sexual cues. This interpretation provides a potential cognitive mechanism that helps explain the seemingly perplexing relations observed with the sexually conservative puzzle. In addition, the interpretation may provide a more nuanced explanation for the paradox noted by Gerrard (1982) and others, that among sexually active adults, the more sexually

⁴T1 $r_{BW, BI} = .47$. As with Study 1, specificity was tested with a repeated-measures ANOVA where T1 BW was dichotomized and treated as an independent variable, and BI from T1 to T2 was the dependent variable. The three-way Time \times Condition \times BW interaction was not significant ($p > .94$), nor were the effects of time, condition or Time \times Condition ($ps > .57$). A test for whether the Time \times Condition \times BI interaction was moderated by relationship status was also not significant ($p = .38$).

conservative individuals engage in a lower frequency of protective practices. Gerrard originally took an emotion-based focus, proposing that anxiety about sexual topics has an inhibitory effect on contraceptive behavior. Our results suggest that, in addition, qualitatively different types of decision-making may be at work. Specifically, although sexually conservative people often do not plan on having sex (i.e., they have no BI), for some, their reactive, context-sensitive decision-making (i.e., their BW) can be swayed in the presence of risk-conducive cues. This scenario could, in turn, increase the likelihood of unprotected sex, because no-BI individuals would not have made plans for protection against pregnancy and STDs (cf., Gibbons et al., 2003).

Thus, the situation is similar to that of drinking among adolescents: Many teens do not have explicit intentions to drink alcohol, but would be willing to do so if offered some at a party (Andrews et al., 2011). Likewise, many adults do not intend to have casual sex, but would be somewhat willing to do so if presented with the opportunity (see Gebhardt, van Empelen & van Beurden, 2009, for a similar argument about BW predicting condom use). This distinction of BI vs. BW highlights the value of social-cognition models like the prototype-willingness model, which distinguish among different degrees of reasoned vs. reactive processing (Gibbons, Kingsbury, Gerrard, & Wills, 2011; Rivers, Reyna, & Mills, 2008).

In contrast, early sex guilt research tended to concern only controlled, intentional processing. For example Galbraith and Mosher (1968) asked participants to view sexual images, and then assessed sexual arousal with a word-association task, in which they counted the number of sexual responses provided for double-entendre words—a rather explicit task, amplified by the fact that participants had to indicate their responses aloud, to the experimenter. Not surprisingly, the researchers found that participants with high levels of sex guilt were less responsive to the cues than those with lower levels. By concentrating on heuristic (i.e., willingness-based) processing, however, we were able to obtain a clearer picture of what occurs when sexually conservative individuals encounter sexual cues.

It is important to point out a few qualifiers to this study's findings. First, although *change* in BW in response to the sex primes was greater for the no-BI group, *absolute* levels of BW were, nevertheless, still greater in the some-BI group. Thus, while the no-BI individuals were more responsive to the sex primes, the primes did not bring them up to the level of the some-BI individuals. Second, not everyone in the no-BI/sex-prime condition showed an increase in BW—clearly, not all no-BI individuals present a sexually conservative puzzle. Third, we should note that our discussion of no-BI participants by no means implies that such individuals are sexually repressed or priggish, or conservative on other dimensions.

A notable limitation to this study is that it examined only males. Work in our lab has indicated that women are not as responsive to the Study 2 paradigm as men (and that was again the case in this study), but future work is needed to more thoroughly examine gender differences. Likewise, the marginal decline in BW for the some-BI/Sex Prime group in Study 2 was unexpected (and interesting), and merits attention in future studies. Although relationship status did not moderate the effects of Study 2, it is also possible that items were interpreted differently by men who were and were not in committed relationships. Finally, more research is needed to examine mechanisms of this intentions-willingness divide. For

instance, do individuals report inconsistent degrees of BW because of poor affective forecasting (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998) or larger hot-cold empathy gaps (Loewenstein, 2005)? Did no-BI individuals, in particular, show increased responsiveness to experimental sex cues because they had more frequently avoided (and, thus, had less exposure to) sexual cues in the past (Love, Sloan, & Schmidt, 1976; Maner et al., 2009)? Another potential process that could be occurring is widening intention-behavior gaps; self-completion theory would suggest that simply making identity-relevant intentions known to others can reduce the likelihood that an individual will translate those intentions into actions (Gollwitzer, Sheeran, Michalski, & Seifert, 2009). The present results are only a first step in investigating health-relevant responses among an interesting, and rather unsuspected group of at-risk individuals.

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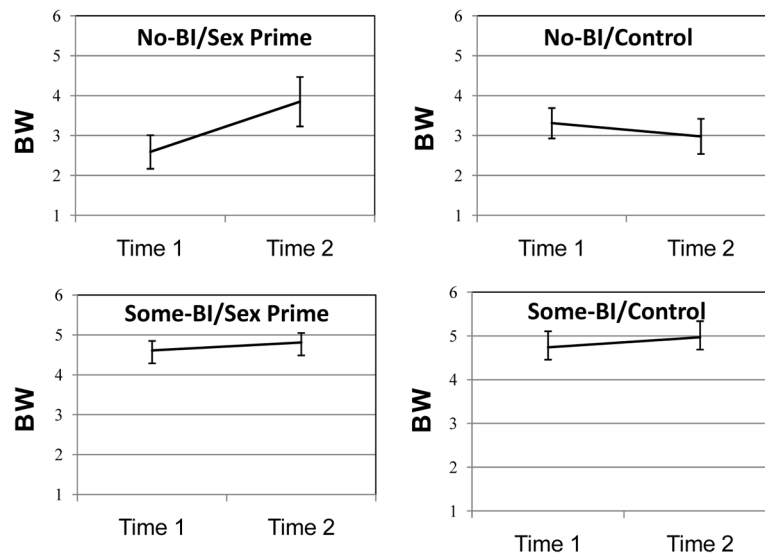


Figure 1. Mean T1–T2 change in BW for Study 1 participants, according to prime condition and baseline BI. Change in BW was only significant for the No-BI/Sex Prime group (top left, $n = 13$); Change was not significant in the No-BI/Control ($n = 15$), Some-BI/Sex Prime ($n = 24$), and Some-BI/Control ($n = 23$). Error bars indicate ± 1 standard error. $N = 75$.

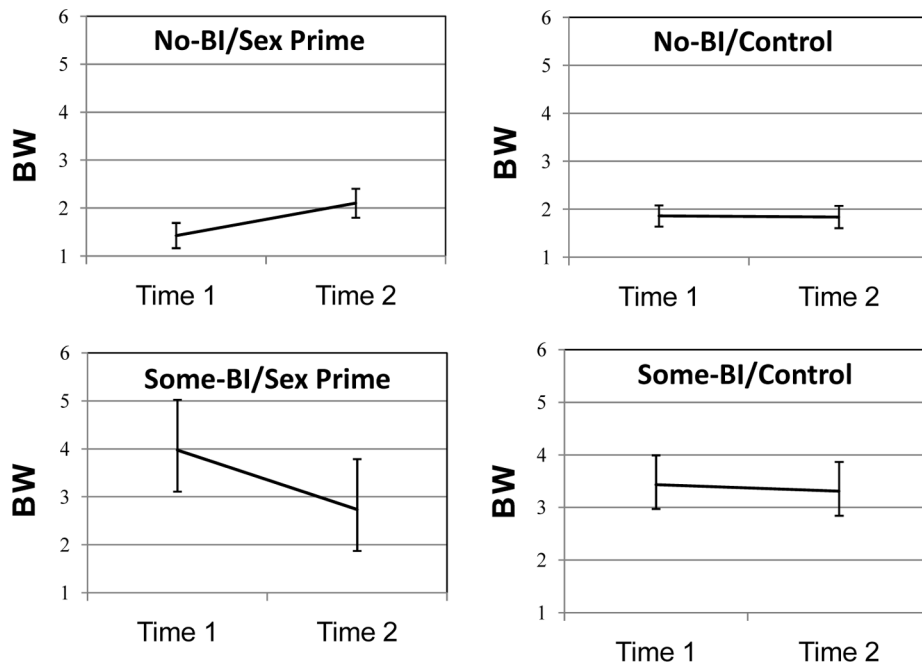


Figure 2. Estimated marginal means of BW at T1 and T2 for each cell. Change in BW was only significant in the No-BI/Sex Prime group (top left, n = 40); Change was not significant in the No-BI/Control (n = 41), Some-BI/Sex Prime (n = 13), and Some-BI/Control (n = 18). Error bars indicate +/- 1 standard error. N = 112.