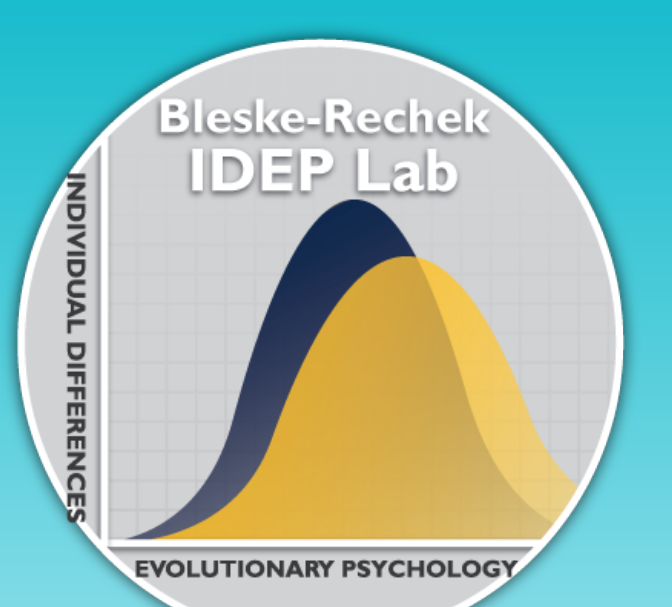




# SEXUAL ATTRACTION TO SIBLINGS, FRIENDS, AND MATES: PRELIMINARY EVIDENCE THAT OPPOSITE-SEX FRIENDS PRIME SEXUAL COGNITION



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## BACKGROUND

In heterosexual samples, men and women consistently report low-to-moderate levels of romantic and sexual attraction to their opposite-sex friends.<sup>1,2,3</sup> A constructionist explanation for sexual attraction to opposite-sex friends emphasizes heterosexism in society, such that men and women are socialized to sexualize the opposite sex.<sup>4</sup> An alternative explanation, however, is that men and women have evolved mating strategies that are activated in the context of reproductively viable members of the opposite sex.<sup>5</sup> If this latter hypothesis is correct, then thinking about either a romantic partner or opposite-sex friend should prime sexual cognition; but thinking about an opposite-sex sibling should not prime sexual cognition (because although siblings are likely to be of similar age, they are kin rather than potential reproductive partners).

In heterosexual samples, men report more sexual attraction to their female friends than women do to their male friends.<sup>1,2,3,5</sup> It may be that women are not consciously aware of attraction to their opposite-sex friends or that women do not consciously experience mateship potential in their friendships. Alternatively, it may be that women's mating motives are less activated than are men's in the context of opposite-sex friendship. To test these competing possibilities, we investigated men's and women's reported attraction to their opposite-sex friend and compared it to their "implicit" sexual cognitive response after thinking about their opposite-sex friend.

In Study 1, we asked men and women to write about either a an opposite-sex sibling, an opposite-sex friend, or their current romantic partner; then we assessed their sexual cognition with a word-relatedness task.<sup>6</sup> We defined sexual cognition as the extent to which individuals perceived sexually ambiguous words (e.g., heat) as related to other sexual words and sexually ambiguous words.

In Study 2, we asked men and women to write about either a an opposite-sex sibling, an opposite-sex friend, or their current romantic partner; then we assessed their sexual cognition with a word-completion task.<sup>7</sup> We defined sexual cognition as the proportion of word stems completed with a sexual as opposed to a non-sexual word.

## HYPOTHESES

**H1. Explicit attraction to different relationship partners:** Participants' explicit self-reports will reveal more sexual attraction toward romantic partners than toward opposite-sex friends or opposite-sex siblings, and more sexual attraction toward opposite-sex friends than toward opposite-sex siblings.

**H2. Implicit attraction to different relationship partners:** Participants' implicit sexual attraction, as indexed by sexual cognition, will be stronger after writing about a romantic partner or opposite-sex friend than after writing about an opposite-sex sibling.

**H3. Sex differences in explicit attraction to opposite-sex friends:**

Men and women will report similarly high levels of sexual attraction to their romantic partners and similarly low levels of sexual attraction to their opposite-sex siblings; but men will self-report more sexual attraction to their opposite-sex friends than women will.

**Research Question:** Will men and women differ in implicit sexual attraction to their opposite-sex friends (as indexed by sexual cognition)?

## PARTICIPANTS

**STUDY 1.** A total of 56 men and 209 women completed a survey online (Mean age=20.91). Participants were recruited through university courses and social network sites. They first reported their romantic relationship status and their sibling status, which filtered them into their priming condition options. A total of 39 men and 131 women wrote about an opposite-sex friend, 11 men and 44 women about a romantic partner, and 6 men and 34 women about an opposite-sex sibling.

**STUDY 2.** A total of 98 men and 149 women from upper-level courses across campus completed a paper-and-pencil questionnaire as part of an in-class activity (Mean age=21.76). A total of 57 men and 73 women wrote about an opposite-sex friend, 15 men and 34 women about a current romantic partner, and 26 men and 39 women about an opposite-sex sibling. Those without a sibling or mate were asked to write about an opposite-sex friend.

## METHOD

### STEP 1. RELATIONSHIP PRIME

In both studies, participants were asked to think about either an opposite sex sibling, opposite sex friend, or current romantic partner, as applicable to their sibship and relationship status. Participants wrote in the name of the person and then typed (or wrote in Study 2) responses to several questions about their target person. The questions:

- Tell us about your first memory with this person.
- How long have you known this person?
- Describe what activities you and this person enjoy doing together.
- What aspects of their personality do you like most?
- What aspects of their appearance do you like most?
- How do you feel about this person?
- What do you like best about the relationship you have with this person?

### STEP 2. SEXUAL COGNITION TASK ("IMPLICIT" SEXUAL ATTRACTION)

#### Study 1. Word relatedness task

After the imagery priming task, participants judged the relatedness of 35 word pairs. The 35 word pairs were divided into three sets. One set included neutral word pairs meant to serve as a control, a second set included sexually ambiguous words paired with other sexually ambiguous words, and a final set included sexually ambiguous words paired with sexual words. Participants rated the word pairs on a seven-point scale (*not related at all to completely related*). Sample word pairs:

neutral-neutral	ambiguous-ambiguous	ambiguous-sexual
coffee – school	heat – long	suck – infatuation
build – hockey	attract – blow	stroke – intimate

#### Study 2. Word completion task

After the imagery priming task, participants were given 60 seconds to complete as many of 20 word stems as they could. They were forewarned that they had only one minute and were instructed to use the first word that came to mind in order to finish as many as possible. Ten stems were taken from Miller and Maner (2011). Each word stem could be completed sexually or non-sexually. Sample word stems and common completions:

_ I P S (LIPS/TIPS)	_ _ _ _ A T O R (VIBRATOR/EDUCATOR)
_ I _ K (DICK/MILK)	E _ _ C T I O N (ERECTION/ELECTION)
_ A K _ D (NAKED/BAKED)	B O O _ (BOOB/BOOK)
_ U M (CUM/RUM)	K _ _ S (KISS/KIDS)
_ L _ T (CLIT/FLAT)	L _ S T (LUST/LOST)

### STEP 3. SELF-REPORTED ATTRACTION ("EXPLICIT" SEXUAL ATTRACTION)

In both studies, participants reported at the very end of the questionnaire how sexually attracted they were to the person they had written about at the beginning of the online survey/paper questionnaire. The question:

How sexually attracted are you to "X"?

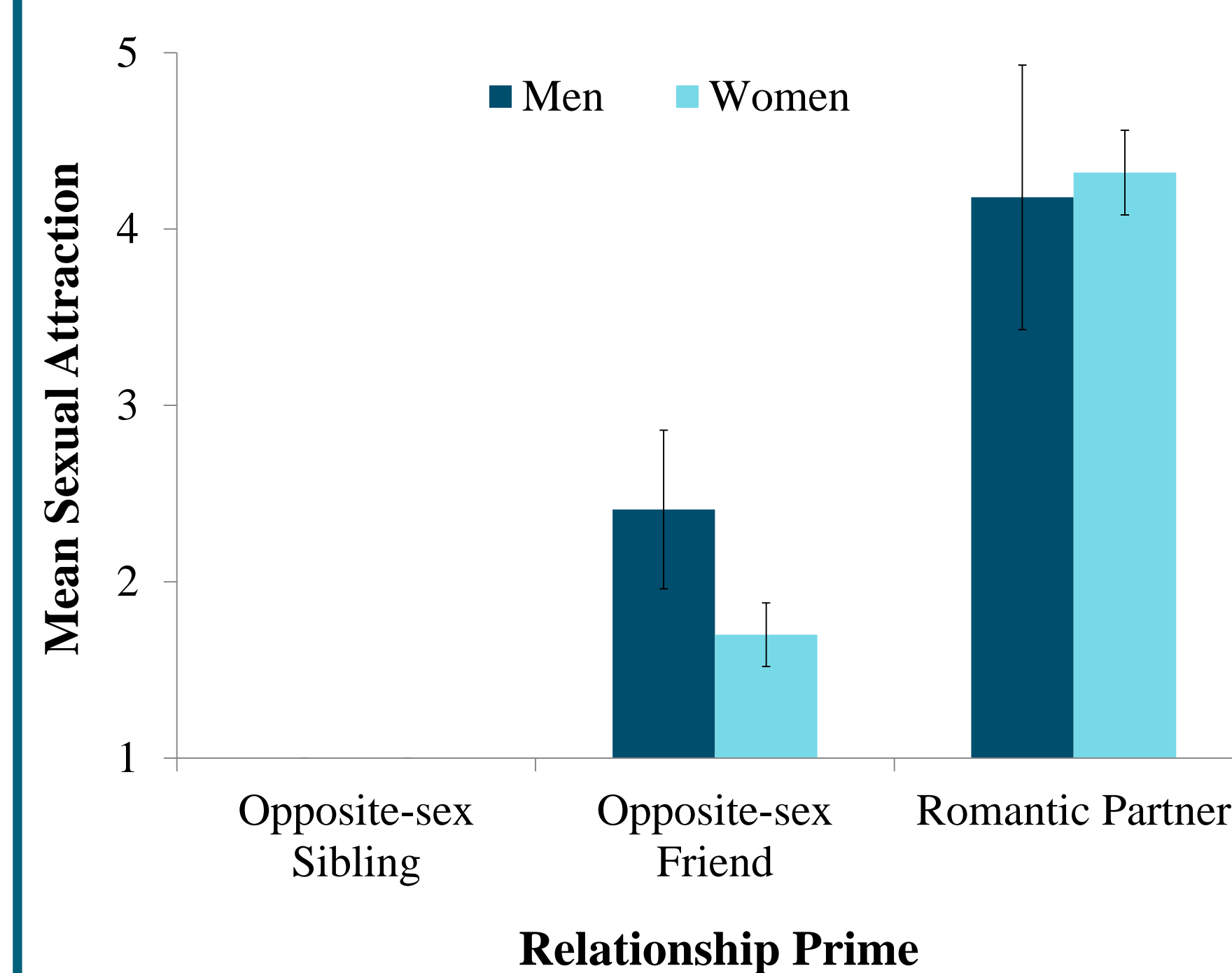
Not at all - A little - Moderately - Quite - Extremely

## STUDY 1

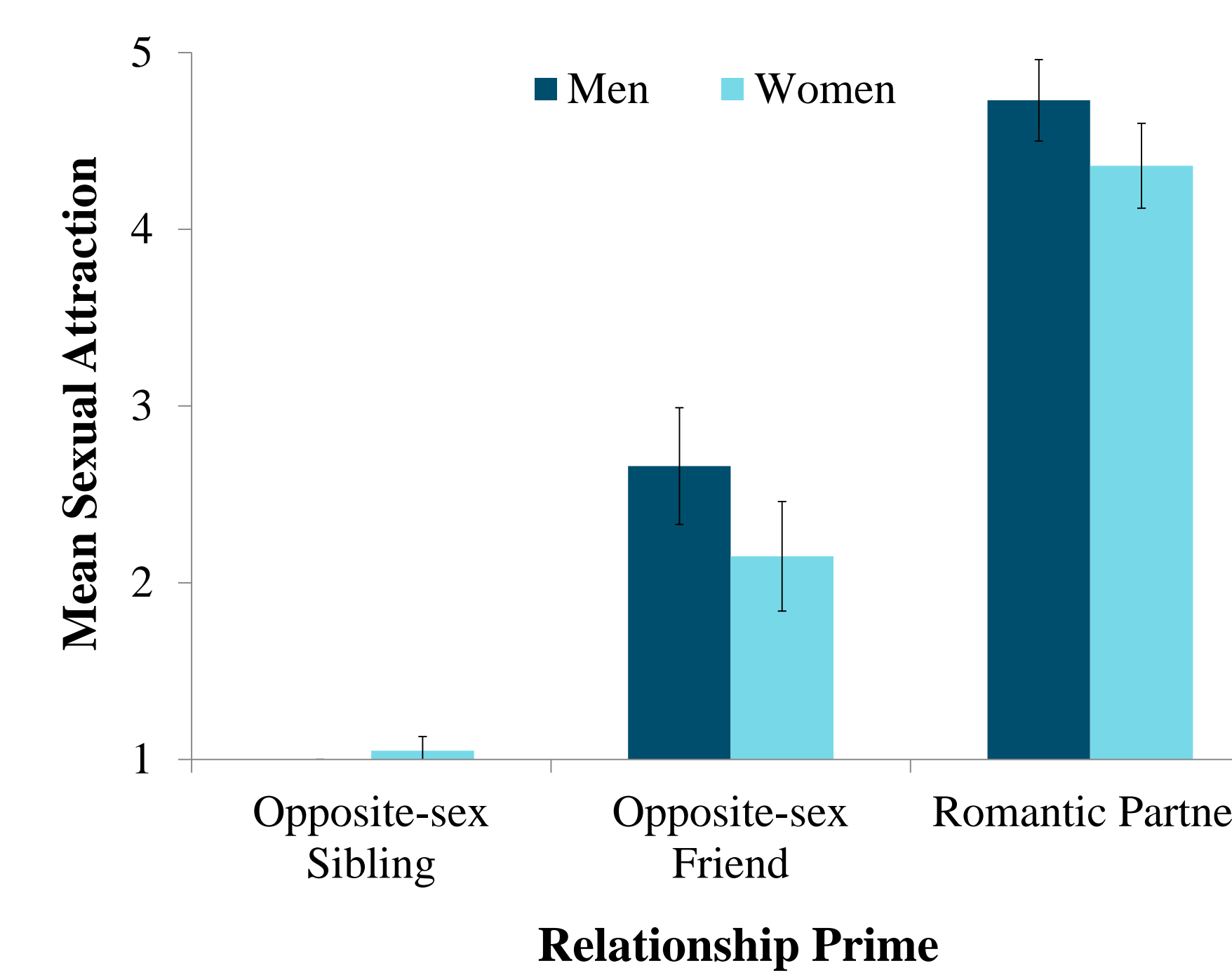
## RESULTS

## STUDY 2

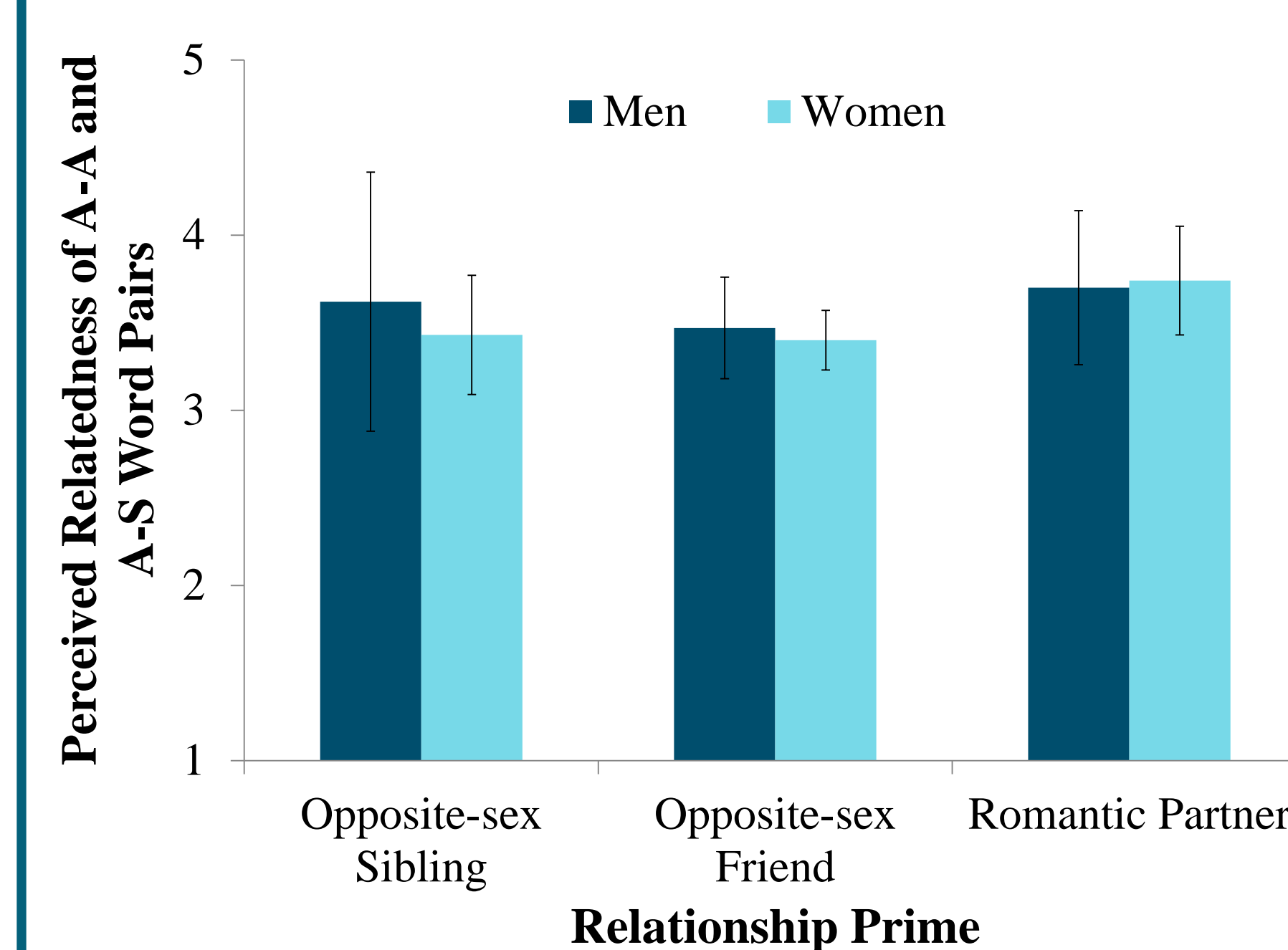
### EXPLICIT SEXUAL ATTRACTION



Our expectations about target differences and sex differences in explicit attraction were supported. In Study 1 (left), men reported more attraction to their opposite-sex friend than women did,  $t(50.85)=2.88, p=.006, d=0.81$ . The same pattern was revealed in Study 2 (right),  $t(127)=2.19, p=.030, d=0.39$ . Men and women reported similarly low levels of sexual attraction toward their opposite-sex siblings and similarly strong levels of attraction toward their romantic partners (sex difference  $ps > .068$ ). Both men and women reported more attraction to their romantic partner than to their opposite-sex friend, and more attraction to their opposite-sex friend than to their opposite-sex sibling.

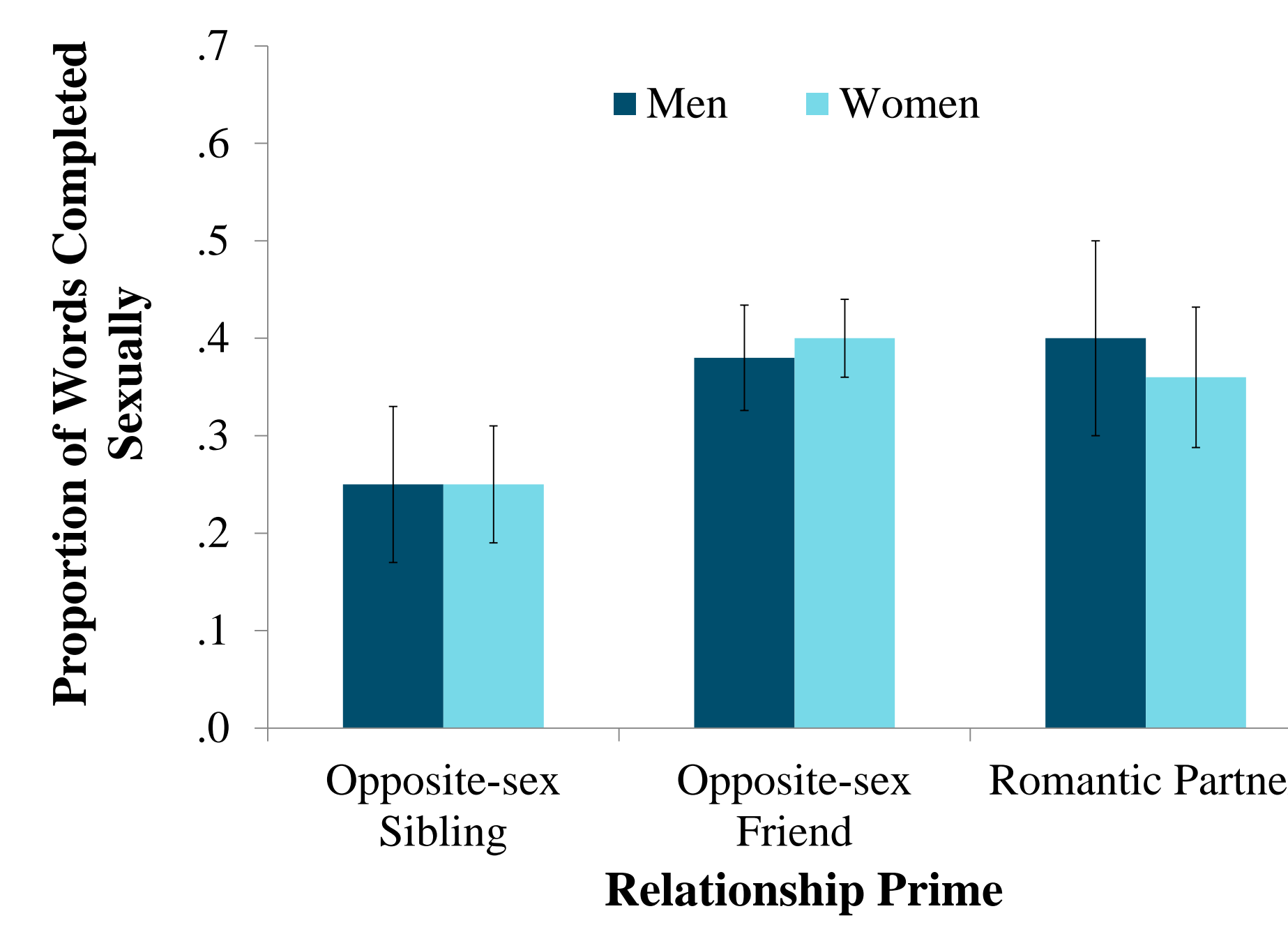


### IMPLICIT SEXUAL ATTRACTION



In Study 1 (at left), men who were primed to think of an opposite-sex friend did not perceive sexually ambiguous words as more related to each other than did women primed to think of an opposite-sex friend. In fact, our word-pair relatedness task was not a valid measure of sexual cognition: Men and women who had been primed with thoughts of their romantic partner did not respond any more sexually than participants who had been primed with thoughts of a sibling.

In Study 2, however, both men and women who had been primed with thoughts of a mate or opposite-sex friend completed more word stems with a sexual word than did men and women who had been primed with thoughts of a sibling (Men: sib vs OSF  $p=.04$ , sib vs mate  $p=.08$ , OSF vs mate  $p=.92$ ; Women: sib vs OSF  $p=.001$ , sib vs mate  $p=.06$ , OSF vs mate  $p=.57$ ).



## DISCUSSION

In Study 1, we had expected that participants primed to be in a "mating mindset" would perceive sexually ambiguous words as related to one another. Specifically, we had predicted that men (and to some degree, women) who had been writing about an opposite-sex friend would respond sexually to the word-pair relatedness task by perceiving pairs of sexually ambiguous words as related to each other. They did not. In fact, the effect did not show up even for those who had been primed to think of their romantic partner, suggesting that the word-pair task was not a valid measure of sexual cognition.

In Study 2, then, we used a different dependent measure of sexual cognition or "mating mindset" -- a word completion task (adapted from that described in Miller and Maner, 2011). We found that participants who answered questions about either an opposite-sex friend or romantic partner as opposed to an opposite-sex sibling subsequently completed a greater proportion of words sexually. The enhanced sexual responding in both mate and opposite-sex friend conditions replicated for men and women, thus revealing a bit of a discrepancy between women's explicit reports of attraction to their opposite-sex friend and their "implicit" sexual response to writing about an opposite-sex friend. That is, although women reported (explicitly) less attraction to their opposite-sex friend than men did, they did not respond any less sexually on the word completion task compared to men after answering questions about their opposite-sex friend. Perhaps women's mating strategies are activated in the context of an opposite-sex friendship, but they are either consciously attempting to minimize attractions or not consciously aware of them. In support of either of those possibilities, women's reported attraction to friend/mate did not predict the degree to which they responded sexually on the word completion task,  $r(106)=-.08, p=.44$ ; but men's reported attraction to their friend/mate did tend to predict (although not significantly) the degree to which they responded sexually on the word completion task,  $r(71)=.19, p=.12$ .

We are planning to replicate Study 2, with a specific focus on comparing women's explicit and less-explicit expressions of sexual response. As we pursue replication and extension of our findings, we aim to determine whether priming opposite-sex friendships and romantic relationships, in the generic, enhance sexual cognition more than priming brothers/sisters does.

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## ACKNOWLEDGMENTS

We thank Barry Kuhle for his sexual expertise that facilitated the quick preparation of Study 2, and the Office of Research and Sponsored Programs at UWEC for supporting this research.