



# Gender Role Expectations of STEM “Couples”: What Happens to Implicit Associations when Romance is Primed?

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## Background

- Women’s attempts to balance different life goals (e.g., career, marriage, children) and the roles that accompany these goals (e.g., scientist, wife, mother) have been hypothesized to explain their career choices and lower representation in STEM (Ceci et al., 2009).
- Activation of “romantic roles” is associated with female science and math majors having less positive attitudes, identification, and interest in science and math (Park et al., 2011)
- Little is known about whether activation of romance affects the romantic partners’ attitudes concerning careers for themselves and their female partner.

## Objectives

The current study examines two questions:

- Will priming female STEM majors with “romance” influence their attitudes toward STEM careers?
- How will the priming of “romance” affect the attitudes of the women’s partners with respect to occupation gender stereotypes?

## Method

### Participants

- 30 female undergraduate STEM majors and their romantic partners participated
- Female participants had earlier completed a survey concerning life goals and gender roles as part of a larger research study. In that survey they indicated that they were in a serious romantic relationship for 4-months or longer and were interested in participating in other studies.
- 80% of the couples had been together 12 months or longer, and 23.3% were living together.
- Average age for women was approx. 20 years; average partner age was 21 years;
- Participants were primarily Caucasian.

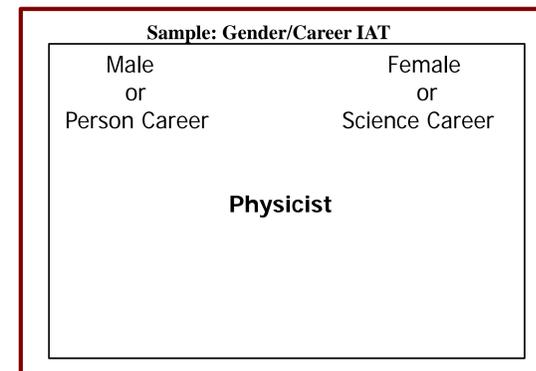
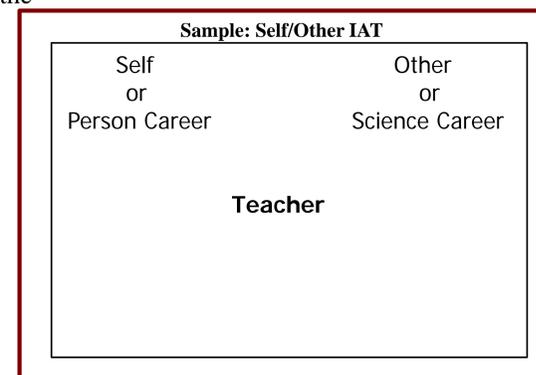
### Procedure

- Each couple attended a 60-75 minute data collection session together
- Couples were assigned to either a social or romantic priming condition (15 couples to each condition)
- Following completion of the priming task, each participant completed two implicit associations tests (IATs): a Self/Other IAT followed by a Gender/Career Type IAT

## Method Continued

**Priming procedure:** Two versions of the priming task were developed for this study. In the *social priming* condition, each member of the couple were given five minutes to “plan a special outing with your best friend to celebrate a special occasion.” The *romantic priming* task entailed planning “a special romantic date with your significant other to celebrate a special occasion.” Following a set of four prompts, participants described the outing or date in writing immediately before completing the Implicit Associations Tasks (IATs).

**Self/Other Career IAT:** To measure implicit associations concerning the self and different career types, an IAT was created in which the construct labels of “Self” and “Other” were contrasted with one another as were the labels “Science Career” and “Person Career” (traditionally feminine). Targets were words representing each of the constructs. “Self” was represented by the terms **I, me, my, mine, and myself**. “Other” was also represented by five terms (**other, they, them, their, theirs**). The names of five science careers (e.g. **Physicist, Chemist**) as well as five traditionally feminine careers (e.g. **Teacher, Social Worker,**) were career construct targets. Critical trials required participants to categorize career targets as either Self/Science Career or Other/Person Career and to reverse these associations (Self/Person Career or Other/Science Career).



**Gender/Career Type IAT:** An additional IAT was created in which the construct labels of “Male” and “Female” were contrasted with one another as were the labels “Science Career” and “Person Career” (traditionally feminine). “Male” was represented by five male names and “Female” was represented by five female names. The names of five science careers as well as five traditionally feminine careers were career construct targets. Critical trials required participants to categorize careers as either Male/Person Career or Female/Science Career and to reverse these associations (Male/Science Career or Female/Person Career).

## Results

- The IAT statistic, **D’ (D prime)**, is calculated by computing the mean difference of latencies (reaction times) between the two critical trial types and dividing by the associated “inclusive” standard deviation. **D’** is the equal weighted average of the two resulting ratios and **reflects the extent to which participants more quickly respond to one type of trial compared to the other.**
- **Analysis of Variance (ANOVA)** was conducted for each IAT to examine gender differences and effects of condition (social versus romantic prime). Results indicated a significant gender by condition interaction for the Self/Other IAT (Table 1) and a marginally significant effect of condition for the Gender/Career IAT (Table 2).

Table 1: Self/Other IAT Scores (D’) by Gender and Priming condition

	F	p
Gender	.17	.69
Condition	.29	.59
Gender X Condition	4.03	.05

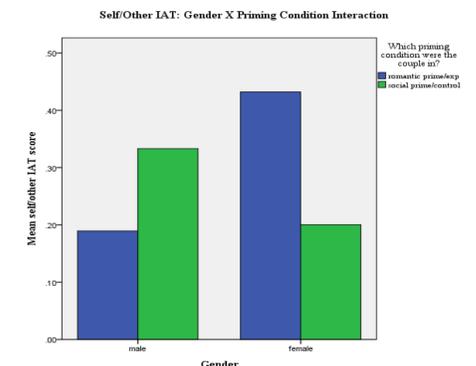
Notes: Condition=romantic prime versus social prime.

Table 2: Gender/Career IAT Scores (D’) by Gender and Priming Condition

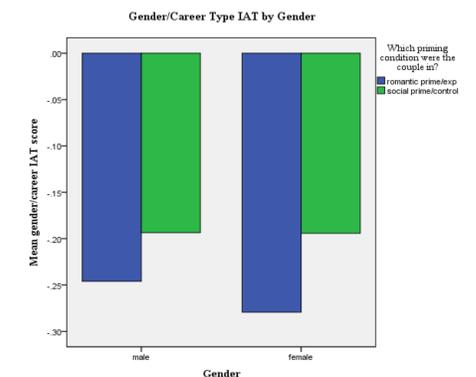
	F	p
Gender	.01	.92
Condition	2.95	.09
Gender X Condition	.46	.50

Notes: Condition=romantic prime versus social prime

## Results continued



- For the Self/Other IAT, larger D’ scores indicate a stronger self/person career association. In this case men’s self/person career association was stronger in the social prime condition, while women associated themselves more with person careers under romantic priming.



- For the Gender/Career IAT, more negative D’ scores indicate stronger associations between men and science careers and women and person careers. Both men and women showed stronger stereotypical associations under romantic priming than in the social prime condition.

## Conclusions

- Under romantic priming conditions, college women majoring in STEM and their male partners exhibited more stereotypical associations between gender and careers.
- Men exhibited a stronger association between themselves and “person” oriented interests when they were not romantically primed, while women were more likely to do so under romantic priming.
- Thus, both female STEM majors and their partners identified with more traditional gender role expectations when romance was made salient.



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