



Social identity magnifies regulatory fit effects in standardized test performance

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Research Goal

To examine how awareness of one's social group influences regulatory fit effects in standardized test performance.

Introduction

Group Identification

- Group identification can be achieved through the framing of information.
 - For example, explicit or implicit racial cues in message frames impact in-group identification of white and black participants (White, 2007).
- Group identification increases regulatory focus effects (Sassenberg and Wolfin, 2008)

Regulatory Focus

- A motivational mechanism that tunes sensitivity to gains and losses in the environment (Higgins, 1997)
 - Promotion focus increases sensitivity to gains
 - Prevention focus increases sensitivity to losses

Regulatory Fit

- Regulatory fit effects depend on the match between focus and environment (Maddox, Markman, & Baldwin, 2007; Maddox, Baldwin, & Markman, 2006, Grimm, Markman, Maddox, & Baldwin, 2009)

	Gains	Losses
Promotion	Match	Mismatch
Prevention	Mismatch	Match

- A regulatory fit influences task performance differently depending on the type of task being performed (Grimm et al., 2008; Maddox & Markman, 2010). Prior work has demonstrated that a regulatory fit produces more cognitively flexible (Grimm et al., 2008; 2009).

- If the task requires cognitive flexibility, like the math GRE or rule-based classification, then a regulatory fit produces better performance than a regulatory mismatch.

Hypothesis

- Given that increasing group identification or highlighting group membership increases regulatory focus effects, we predicted that highlighting group membership would also increase regulatory fit effects. Therefore, we predicted larger regulatory fit effects for the group that completed the demographic form first.

Experiment Overview

Participants

- 161 TCNJ undergraduates participating for course credit
- 124 Females and 37 Males (equally distributed across groups)

Group Identification

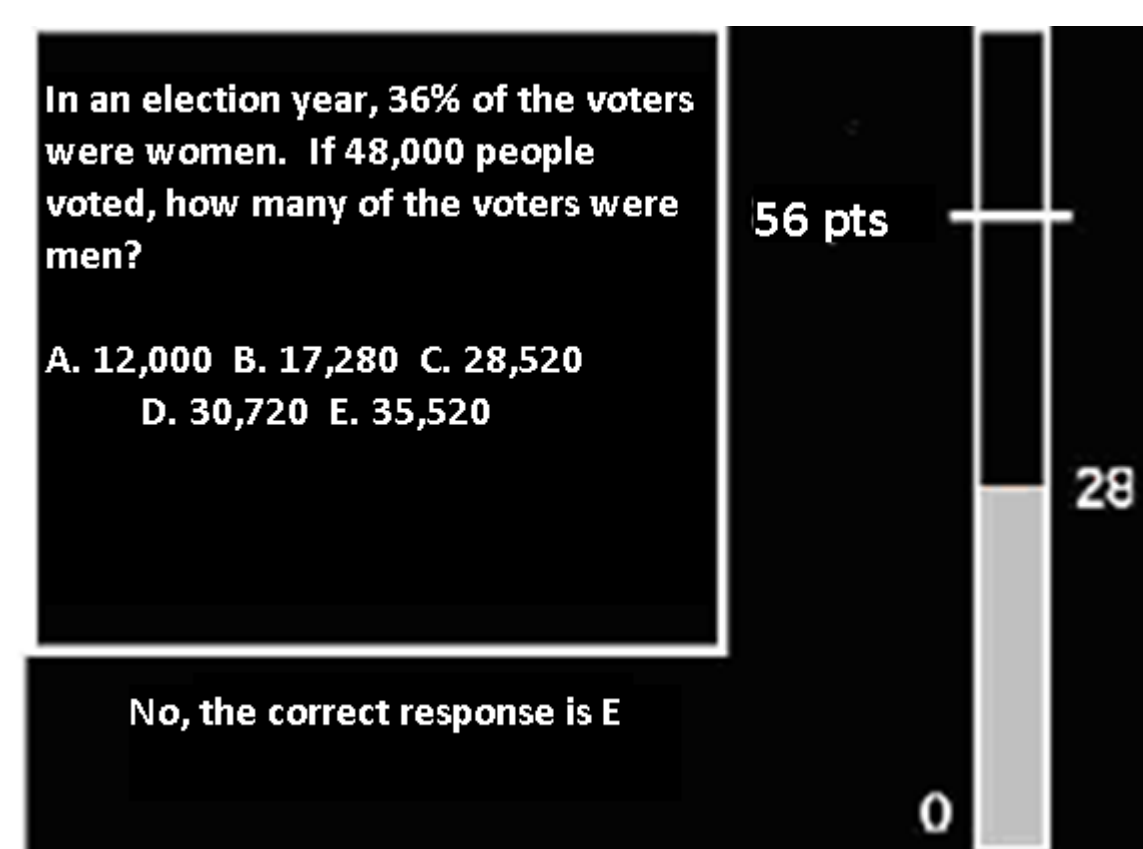
- Participants were either given a demographic form including age, gender, and ethnicity before the experiment or upon completion
 - Before Experiment = Group Identification Prime
 - After Experiment = No Group Identification Prime

Regulatory Focus Prime

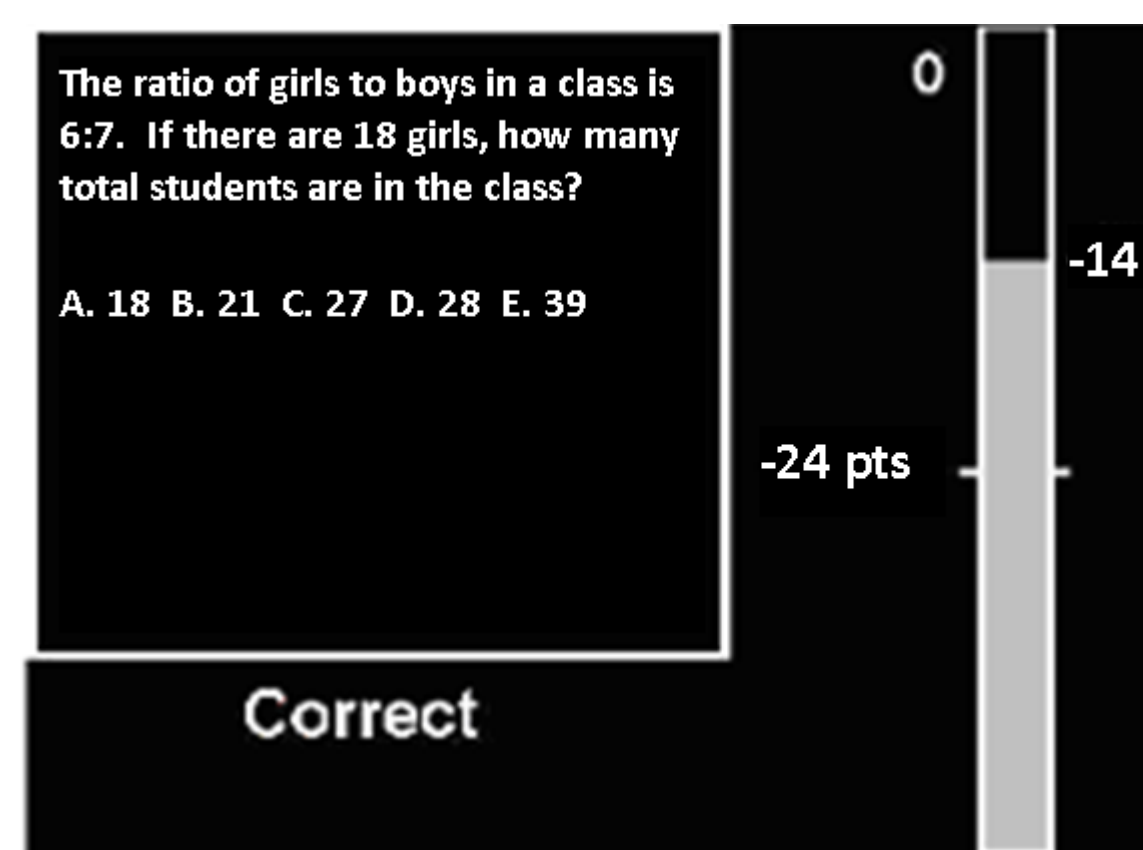
- Research participants were either asked to record their aspirations or responsibilities for the semester (Higgins, 1997; 2000)
 - Aspirations = Promotion Focus
 - Responsibilities = Prevention Focus

GRE Math Problem Task Reward Structure

- Participants completed 20 multiple-choice GRE math problems presented on a computer screen with five possible answers. They were given scratch paper but were not permitted to use a calculator.
- Participants tracked their progress using a point meter on the screen
- 79 participants gained more points for correct responses
 - Correct response = 3 points
 - Incorrect response = 1 point



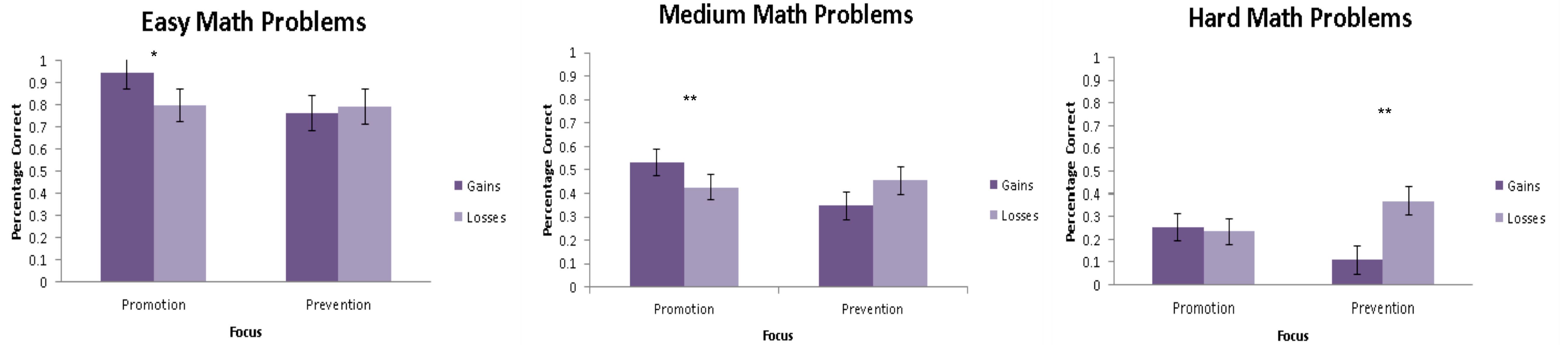
- 82 participants lost fewer points for correct responses
 - Correct response = -1 points
 - Incorrect response = -3 points



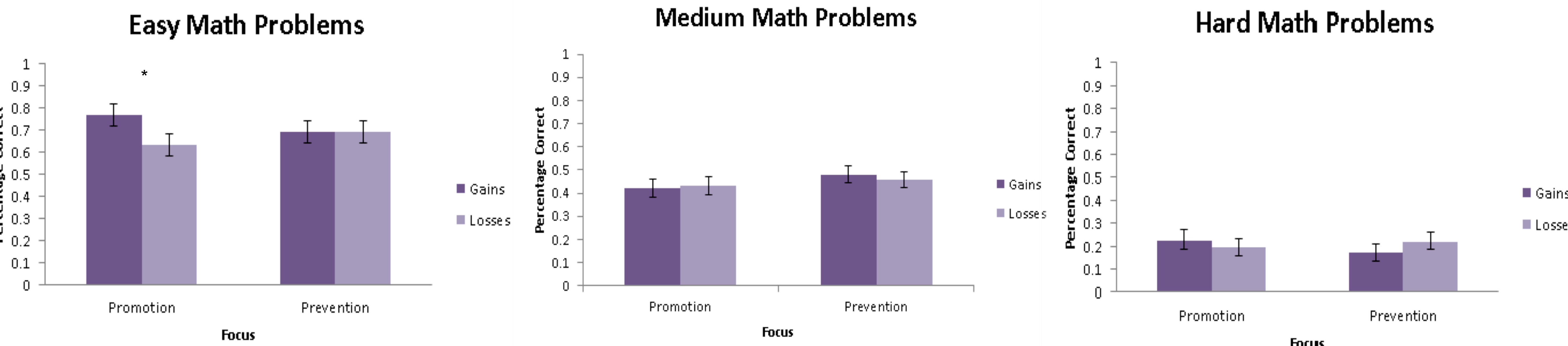
- After their answer was chosen, participants received immediate feedback of either "Correct" or "No, the correct response is ____".

Results: Task Accuracy

Demographics Given Before Experiment



Demographics Given After Experiment



* = marginally significant, ** significant

Results Summary

- When the demographic was given first, an ANOVA revealed a significant main effect for Reward for the hard math problems, $F(1,46) = 4.129, p = .048, \eta = .088$, and a significant interaction between focus and reward for the medium, $F(1,46) = 4.519, p = .039, \eta = .095$, and hard math problems, $F(1,46) = 5.569, p = .023, \eta = .115$.
- When the demographic was given after the experiment, an ANOVA revealed no significant main effects or interactions.

Concluding Remarks

- We predicted that group identification would increase regulatory fit effects, and therefore that we would find larger regulatory fit effects when participants were given the demographics form first
- We found that priming group identification did increase regulatory fit effects for the medium and hard math problems
 - It is compelling that our manipulations were strong enough to override effects of gender. We found that there were no main effects or interactions with gender.
 - It is interesting that when the demographics form was given before participants completed the experiment, we found effects for Promotion in the Easy problems and for Prevention in the Hard problems. It is possible expectancy for success played a role.

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