

Regulatory Fit and Reaction to Opinion Deviance in Small Groups

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Groups are typically hostile toward opinion deviates, and this response is influenced by characteristics of both the group and the deviate (Levine & Thompson, 1996). Regulatory Fit Theory (Higgins, 2000) makes novel predictions about the impact of these two classes of variables on reaction to deviance. Based on evidence that “fit” between regulatory focus (promotion vs. prevention) and strategic orientation in pursuing a goal (eagerness vs. vigilance) intensifies affective responses to stimuli, it was predicted that group members with a promotion focus would respond more negatively to deviates presenting eager rather than vigilant arguments, whereas members with a prevention focus would respond in exactly the opposite manner. Sixty-five three-person groups of male and female undergraduates (N = 189) were placed in either a promotion or prevention focus and then discussed a proposed senior thesis requirement (95% opposed the proposal). Next, groups watched a male student arguing in favor of the proposal and evaluated the speaker and his message. As predicted, groups in fit conditions (promotion-eager and prevention-vigilant) evaluated the speaker more negatively than did groups in non-fit conditions (promotion-vigilant and prevention-eager). However, group evaluations of the speaker’s message did not differ as a function of fit vs. non-fit. This study clarifies factors underlying group hostility toward people who dissent from consensus and extends the range of Regulatory Fit Theory by using its principles to generate hypotheses about small group phenomena.

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1.0 INTRODUCTION

Conflict is an inevitable aspect of group life. One important source of conflict between group members is disagreement on matters of opinion (Festinger, 1950). In many groups, differences of opinion occur when numerical minorities (deviates) challenge numerical majorities. In a review of the social psychological literature on majority reaction to opinion deviance, Levine (1989; see also Levine & Thompson, 1996) cited a number of studies indicating that deviates tend to be disliked and rejected.

Why are groups distressed by disagreement, and why do they reject deviate members? Festinger (1950) identified two reasons. First, group members desire consensus because it validates their *social reality*. When members agree about an issue not based in physical reality, they feel confident that their beliefs are “correct.” Alternatively, the presence of an opinion deviate creates uncertainty, which is a psychologically unpleasant state. Second, it is easier to achieve group goals when members are in agreement with one another on issues relevant to goal attainment (*group locomotion*). Deviates interfere with group locomotion and thereby frustrate other members. According to Festinger (1950), in both cases groups initially communicate to deviates in an effort to elicit conformity. However, if this fails, groups redefine their boundaries to exclude the deviates.

In a classic study of reaction to opinion deviance based on Festinger’s (1950) ideas, Schachter (1951) studied groups of naïve participants who were either high or low in

cohesiveness and who discussed a topic that was either relevant or irrelevant to the group's purpose. Each group contained three confederates: a mode, who agreed with participants throughout the discussion; a slider, who disagreed at the beginning of the discussion and gradually shifted to agreement; and a deviate, who disagreed throughout the discussion. After the discussion, the deviate was rejected more than the slider and the mode, who were liked about equally. In addition, the deviate was rejected more when group cohesiveness and topic relevance were high, though the impact of those variables depended on the specific measure of rejection.

More recently, researchers using ideas from Social Identity Theory (Tajfel, 1978) and the Subjective Group Dynamics model (Marques, Abrams, Paez, & Hogg, 2001) identified a third motive for rejection of opinion (and other types of) deviates. Social identity theorists suggest that individuals "define their social self-concept (social identity) by categorizing themselves and others as members of social groups" (Marques et al., 2001, p. 405). Further, individuals want their group to be positively distinct from other groups such that their group characteristics are simultaneously different and superior to those of other groups. From this perspective, likeable or conforming ingroup members are perceived as reflecting positively on the overall image of the group, whereas unlikeable or deviate ingroup members are seen as reflecting negatively on this image. When compared with likeable and unlikeable outgroup members, likeable and unlikeable ingroup members generate stronger reactions (positive and negative, respectively), a phenomenon known as the "black sheep effect."

In a classic black sheep study, Marques and Yzerbyt (1988) exposed participants to recorded speeches given by either an ingroup or outgroup member. Participants' ratings of ingroup members giving poor speeches were much lower than their ratings of outgroup members giving the same speeches. In contrast, their ratings of ingroup members giving good speeches

were much higher. In addition to replicating the basic effect described above, other black sheep studies have found that deviate ingroup members are rejected more strongly when other group members are highly invested in or identified with group membership (Branscombe, Wann, Noel, & Coleman, 1993; Coull, Yzerbyt, Castano, Paladino, & Leemans, 2001; Hornsey & Jetten, 2003), feel their own prototypicality is threatened (Schmitt & Branscombe, 2001), are accountable to one another (Marques, Abrams, Paez, & Martinez-Taboada, 1998), or are uncertain about the attitudinal positions of other (non-deviate) members (Marques, Abrams, & Serodio, 2001).

What other factors influence how groups react to opinion deviance? Levine (1989) argued that group reaction to deviance can be influenced by a number of factors, classifiable into two primary categories. First, characteristics of the group in which deviance takes place can influence group reaction. These characteristics include social support among group members (e.g., Doms, 1984), group norms (e.g., Moscovici & Lage, 1976), group decision rules (Miller & Anderson, 1979), and external threat to the group (e.g., Lauderdale, 1976). Second, characteristics of the deviate can influence group reaction. These characteristics include the extremity (e.g., Sampson & Brandon, 1964), content (e.g., Paicheler, 1977), and consistency (e.g., Moscovici & Nemeth, 1974) of the deviate's position, the deviate's status (e.g., Wiggins, Dill, & Schwartz, 1965), and the deviate's interference with the attainment of group goals (e.g., Berkowitz & Howard, 1959; Schachter et al., 1954; Singer, Radloff, & Wark, 1963).

Interestingly, little attention has been devoted to how group characteristics *interact* with deviate characteristics in determining group reaction. The purpose of the present study was to investigate this interaction using ideas derived from Regulatory Fit Theory (Higgins, 2000), which has proven to be very useful in explaining a wide array of psychological phenomena.

Before describing Regulatory Fit Theory, it is necessary to discuss the theory that predated and stimulated it -- Regulatory Focus Theory.

1.1 REGULATORY FOCUS THEORY

Building on the hedonic principle that people approach pleasure and avoid pain, Regulatory Focus Theory (Higgins, 1997) proposes that individuals have two distinct motivational orientations during goal pursuit: *promotion*, which involves striving to attain positive outcomes, and *prevention*, which involves striving to avoid negative outcomes. In a promotion-focused state, individuals are concerned about advancement, accomplishment, and fulfillment of aspirations. In contrast, in a prevention-focused state, individuals are concerned about protection, safety, and fulfillment of responsibilities. Regulatory focus has been shown to affect various behaviors, such as how individuals approach problem solving. In signal-detection terms, promotion-focused individuals should want to ensure *hits* and avoid errors of omission (*misses*), whereas prevention-focused individuals should want to ensure *correct rejections* and avoid errors of commission (*false alarms*). Consistent with this hypothesis, Crowe and Higgins (1997, Study 2) found that promotion-focused participants “overidentified” presented items in a recognition memory task (a “risky” bias), whereas prevention-focused participants “underidentified” such items (a “conservative” bias). Crowe and Higgins (Study 1) also found that promotion-focused individuals persevered during periods of difficulty in problem solving, whereas those in a prevention focus gave up rather easily (apparently in an attempt to avoid making further mistakes).

Prevention and promotion states are also linked to distinct emotional experiences. Specifically, promotion is associated with an emotional continuum encompassing cheerfulness and dejection, whereas prevention is associated with a continuum encompassing quiescence and agitation (Higgins, Bond, Klein, & Strauman, 1986; Higgins, Shah, & Friedman, 1997; Strauman & Higgins, 1988). In addition, regulatory focus also influences how individuals make emotional evaluations of attitude objects. Shah and Higgins (1997) found that promotion-focused participants could quickly evaluate object words described using a happy-sad continuum. In contrast, prevention-focused individuals were faster when object words were described using a relaxed-tense continuum.

Although many studies have focused on the relationship between regulatory focus and individual behavior, only two studies have examined the behavioral implications of regulatory focus in groups (collective regulatory focus). Given that groups develop other types of shared perspectives (see Levine & Higgins, 2001), it is likely that they also share regulatory focus states and that group behaviors are affected by these states. In a relevant study (Levine, Higgins & Choi, 2000), three-person groups were given either prevention- or promotion-focused instructions and then asked to complete three blocks of recognition memory trials in which they initially saw a number of nonsense words and then were shown those words as well as new ones. Their task was to say whether each nonsense word had been seen before. As predicted, promotion-focused groups converged more on risky strategies (i.e., gave inaccurate “yes” responses when asked whether they had seen words before) than did prevention-focused groups.

More recently, Faddegon, Scheepers, and Ellemers (unpublished) argued that group members can internalize promotion or prevention group norms and that these norms can influence subsequent behavior. In two studies, participants were presented with promotion- or

prevention-focused “group mottos” ostensibly chosen by other group members. Participants then completed the same signal detection task used by Levine et al. (2000). Results indicated that participants whose group endorsed promotion-focused mottos demonstrated a risky bias while completing this task, whereas participants whose group endorsed prevention-focused mottos demonstrated a conservative bias. In addition, members of promotion-focused groups were more likely to report experiencing emotions associated with promotion states (cheerfulness and dejection) than were members of prevention-focused groups (Study 2). The results of the studies by Levine et al. and Faddegon et al. indicate the potentially important role that regulatory focus can play in group processes.

In conclusion, regulatory focus has been shown to influence important psychological processes, such as problem solving and emotional experience, and has been demonstrated to affect both individuals and groups. However, individuals and groups not only experience the phenomenological states of prevention and promotion, but they also take action during goal pursuit, utilizing specific strategies to help achieve their objectives. These strategies may be either consistent or inconsistent with their regulatory focus, and this match or mismatch may affect behavior and experience. Regulatory Fit Theory (Higgins, 2000) focuses explicitly on these issues.

1.2 REGULATORY FIT THEORY

Higgins (2006) identified two different means (or categories of behavior) by which people pursue goals: *eagerness* and *vigilance*. To illustrate the difference between eagerness and vigilance, consider two students working to achieve an “A” in a course (Higgins, 2006). One

student utilizes eager means to pursue this goal, by reading material beyond what was assigned. The other student pursues the goal in a vigilant way, by being careful to fulfill all the course requirements. In this example, there is a natural fit between promotion focus and eager means, because reading extra material sustains an advancement orientation toward the goal. Similarly, prevention focus and vigilant means are also a good fit because carefully fulfilling course requirements sustains a protection responsibility toward the goal.

Researchers have recently begun to evaluate the effects of regulatory fit on several classes of behavior.ⁱ In a study by Shah, Higgins, and Friedman (1998), participants demonstrated greater motivation to perform well on an anagram task when their chronic or manipulated regulatory focus matched the means they used to attain their goals. For example, promotion-focused participants were more motivated when they were informed that they would receive a reward for performing well on the task (incentive described in an “eager” way), whereas prevention-focused participants were more motivated when they believed they would lose the chance for a reward if they failed to perform well (incentive described in a “vigilant” way). In another study (Forster, Higgins, & Idson, 1998), eagerness and vigilance were manipulated using an arm pressure technique in which eagerness was operationalized as pulling one’s arm towards oneself and vigilance was operationalized as pushing one’s arm away. Participants’ performance on an anagram task was enhanced and they were more motivated when there was fit between their regulatory state and the type of arm pressure they were using (promotion/eager or prevention/vigilant). Spiegel, Grant-Pillow, and Higgins (2004, Study 1) also found that promotion-focused participants were more likely to complete a task if they developed an approach-related plan for task completion, whereas prevention-focused participants were more likely to complete the task if they developed an avoidance-related plan.

Regulatory fit can also influence evaluation. Higgins, Idson, Freitas, Spiegel, and Molden (2003) found that participants in a promotion state who were asked to evaluate an object (a desirable coffee mug) using eager means rated the object as more valuable than did promotion-focused participants evaluating the same object using vigilant means. The reverse was true for prevention-focused participants. In a study by Camacho, Higgins, and Luger (2003, Study 3), participants were asked to consider the outcome of a previous conflict they once had with an authority figure. Some participants were asked to remember an outcome in which the authority figure encouraged them (eager means), and others were asked to remember an outcome in which the authority figure protected them against potential dangers (vigilant means). Promotion-focused individuals evaluated the resolution of eager conflicts more positively than vigilant conflicts, whereas the reverse was true for prevention-focused participants. And finally, Freitas and Higgins (2002) found that participants evaluated an experimental task more positively when task instructions were framed in ways that matched their regulatory focus state.

The studies described above illustrate how regulatory fit can affect evaluation, intensifying participants' feelings toward the object of evaluation. Higgins and colleagues suggested that this may occur because fit strengthens individuals' engagement in the evaluation process. In other words, under fit conditions, individuals are more interested in the object of their evaluation, and their feelings during the evaluation process are more intense. This intense feeling leads individuals to apply greater value to the decisions they make, or to "feel right" about their conclusions. Avnet and Higgins (2006) state, "[the experience of] regulatory fit is suggested to increase decision makers' confidence in their reactions; to increase the importance of their reactions; and in general, to increase their engagement in their reactions, whatever those reactions happen to be" (p. 2).

When an individual's evaluation of a target is positive, experiencing regulatory fit should enhance that reaction. Enhancement of positive evaluation resulting from fit has been shown to exist independently of positive mood and can occur even when the object of evaluation is unrelated to the fit activity. For instance, Higgins et al. (2003, Study 4) asked participants to list promotion or prevention goals and to generate strategies (eager or vigilant) they could use to pursue those goals. Participants were then asked to rate photographs of dogs on perceived "good-naturedness" (an issue unrelated to the fit activity). Participants in fit conditions (promotion/eager or prevention/vigilant) rated the dogs more positively than did participants in non-fit conditions.

Studies investigating the effects of regulatory fit on persuasion have also demonstrated how increased engagement leading to "right feelings" can affect the formation of attitudes and attitude change. For example, Spiegel et al. (2004, Study 2) found that participants were more compliant with a health message framed in fit ways (promotion/benefits or prevention/costs) than in non-fit ways. Cesario, Grant, and Higgins (2004, Study 2) found that chronically promotion-focused participants found a message promoting an after-school program for students strongly persuasive when the message was framed in eager terms (i.e., "helping students to achieve") and were likely to hold positive opinions about the proposal. In contrast, prevention-focused participants found the message strongly persuasive and were likely to hold positive opinions about it when it was framed in vigilance terms (i.e., "preventing the failure of students to meet their academic potential"). This study is also interesting because it demonstrates that regulatory fit can be created when participants' regulatory focus matches the strategic means of another party, in this case the source of the persuasive communication (see also Camacho et al., 2003).

In the studies cited above, individuals were favorably disposed toward an object or persuasive message prior to being exposed to it in the experimental situation. In these cases, fit served to enhance the initial positive reaction. But what happens when the initial reaction to the message or object is negative? Cesario et al. (2004) state, “The impact of feeling right from regulatory fit will depend on what it is that one is feeling right about. For example, it will have a different effect if the cognitive responses...are negative rather than positive. Feeling right about one’s negative responses to a message, for instance, would decrease rather than increase the persuasiveness of the message. The feeling right experience would be information about the rightness of one’s negative evaluation.” (p. 390). In support of this hypothesis, Cesario et al. (Study 4) found that for participants instructed to pay attention to a proposal’s persuasiveness, the valence of their own thoughts about the proposal interacted with regulatory fit such that participants who reported primarily favorable thoughts reported increased message persuasiveness and positive opinions about the proposal, whereas participants who reported primarily negative thoughts reported decreased persuasiveness and negative opinions about it. In this latter case, then, experiencing regulatory fit increased the intensity of participants’ negative evaluation of the proposal.

1.3 REGULATORY FIT AND REACTION TO DEVIANCE

As noted above, little attention has been devoted to how group characteristics interact with deviate characteristics in determining group reaction. Regulatory Fit Theory suggests interesting hypotheses regarding this interaction. Prior research indicates that group members’ reaction to opinion deviance is typically negative. According to Regulatory Fit Theory, the extent of this

negative reaction should be affected by the degree of fit between the group's regulatory state (promotion vs. prevention) and the way a deviate frames his or her message (eager vs. vigilant). Specifically, groups in fit conditions (promotion/eager and prevention/vigilant) should respond more negatively to deviates than should groups in non-fit conditions (promotion/vigilant and prevention/eager).

To test this hypothesis, a study was conducted in which all members of a group were placed in either a prevention or promotion state (using a focus induction employed in prior studies) and then engaged in a discussion in which they made a group decision on an issue. Following this discussion, groups were exposed to an individual (opinion deviate) endorsing an alternative viewpoint. The deviate's message was framed in either an eager or a vigilant way. Following receipt of the deviate message, groups rated the deviate and his message.

2.0 METHOD

2.1 DESIGN AND PARTICIPANTS

A 2 (group regulatory focus: promotion vs. prevention) x 2 (deviate message: eager vs. vigilant) between-subjects design was used. One hundred and ninety five undergraduates at the University of Pittsburgh participated in this experiment (87 males and 108 females). Participants were randomly assigned to 3-person groups, and groups were randomly assigned to conditions. The number of groups in each of the four conditions was: promotion/eager: 17; promotion/vigilant: 16; prevention/eager: 16; prevention/vigilant: 16. Participants received credit toward an introductory psychology course requirement in exchange for their participation.

2.2 PROCEDURE

Participants entered the lab in groups of three. They were informed that they would be taking part in two separate experiments -- the first designed to provide general information about University of Pittsburgh undergraduates, and the second designed to gather student opinions on proposed changes to graduation requirements. In the “first experiment,” which was designed to induce either a prevention or promotion focus, participants individually wrote a paragraph describing either a current “hope or aspiration” (promotion) or a current “duty or obligation”

(prevention) (see Appendix A). This task has been successfully used to induce regulatory focus in prior studies (e.g., Cesario et al., 2004; Freitas & Higgins, 2002). All three participants in each group were placed in the same regulatory focus state.

Following this manipulation, participants began the “second experiment,” during which they read a one-page proposal to add a senior thesis to the graduation requirements for all majors at the University of Pittsburgh (see Appendix B).ⁱⁱ To enhance the prior regulatory focus manipulation, two versions of this proposal (promotion and prevention) were used. Participants placed in a promotion focus during the first portion of the experiment received the promotion version of the proposal, and vice-versa. After reading the proposal, participants were asked to discuss it as a group, come to a consensus on whether to support it, and then create three arguments supporting their group’s position (see Appendix C). The experimenter left the room during this discussion, and participants’ discussion was audiotaped.ⁱⁱⁱ Ninety-five percent of the groups decided against the implementation of a senior thesis. Data from three groups that decided in favor of the senior thesis and one group that could not reach a consensus were not included in the analyses.

After groups completed the discussion, they were informed that, in a previous experiment, other University of Pittsburgh students wrote essays about the advisability of instituting a senior thesis and read them aloud while being videotaped. Participants were then asked to watch one such student, who ostensibly had been randomly selected by the experimenter. In reality, the “Pitt student” on the videotape was a confederate reading a message supporting the senior thesis, which was presented in either an eager or a vigilant way (see Appendix D).^{iv} To enhance the perception that the student was a member of participants’ group (University of Pittsburgh students), he wore a sweatshirt with a large Pitt logo across the chest.

Following the presentation of the message, participants were asked, as a group, to discuss the speaker and his message. This discussion was audiotaped. Following the discussion, each group member rated the speaker on a series of 7-point scales (Appendix E, items 1-9, 14). In addition, group members rated the eagerness/vigilance of the speaker's message (Appendix E, items 10-13). Next, participants completed a questionnaire measuring chronic regulatory focus (RFQ; see Higgins et al., 2001; see Appendix F). After filling out a final questionnaire (see Appendix G), participants were debriefed and dismissed.

3.0 RESULTS

3.1 RFQ

The Regulatory Focus Questionnaire (RFQ; see Appendix F) is an individual difference measure measuring chronic regulatory focus. Higgins et al. (2001) found that scale items load on two factors, the first assessing chronic promotion focus (items 1, 3, 7, 9, and 10), and the second assessing chronic prevention focus (items 2, 4, 5, 6, and 8). In studies using individuals as the unit of analysis, separate mean scale scores for all promotion items and all prevention items are computed for each participant. The difference between these scores is then calculated (RFQ difference). This method of determining individual regulatory focus has been used successfully in several studies (Cesario et al., 2004; & Higgins et al., 2001). However, in the current study it was necessary to compute an overall RFQ difference score for each group.^v This was done by computing a separate mean promotion and mean prevention score for each group member, calculating the difference between these scores, and then averaging those scores to create a mean RFQ difference score for each group. These scores were used as a covariate in subsequent analyses to control for differences in group chronic regulatory focus.

3.2 MANIPULATION CHECKS

Manipulation checks were conducted to confirm that participants understood the speaker's message, perceived the speaker's opinion to be deviant in relation to their own opinion and that of other students, and correctly identified eager or vigilant framing in the deviate's message. First, participants were asked, "What position did the speaker take on the senior thesis proposal?" (Appendix E, item 1). Means for this item did not differ as a function of group regulatory focus, deviate message framing, or the interaction between focus and framing (all $ps > .10$). Across conditions, participants indicated that the speaker was strongly in favor of the proposal ($M = 6.17$), indicating that they accurately evaluated the content of the speaker's message. Participants were also asked, "How much do you think most other Pitt students would agree with the speaker's opinion about the thesis proposal?" (Appendix E, Item 9). Again, means did not differ as a function of group regulatory focus, deviate message framing, or the interaction between these variables (all $ps > .10$). Across conditions, participants indicated that the speaker's opinion did not match that of other students ($M = 2.21$). Participants were additionally asked "What is your overall opinion about the senior thesis proposal?" (Appendix E, item 14). Means did not differ as a function of group regulatory focus, deviate message framing, or the interaction between these variables (all $ps > .10$). Across conditions, participants indicated that they were strongly against the senior thesis proposal ($M = 1.75$) and hence that the speaker's opinion did not match their own opinion. Results on these items indicate that participants perceived the speaker to be an opinion deviate in relation to both themselves and other members of their group.

To assess whether participants correctly identified the framing of the eager or vigilant speaker's message, they were asked four questions: "How eager and enthusiastic did the speaker seem?"; "How careful and cautious did the speaker seem?"; "How concerned was the speaker

that Pitt students succeed?"; and "How concerned was the speaker that Pitt students do not fail?" (Appendix E, items 10-13). A 2 X 2 analysis of covariance was conducted on group responses to each of these items. For all four items, there were no significant effects for group regulatory focus, deviate message framing, or the interaction between focus and framing (p s between .08 and .72).

After reviewing the experimental procedure, it seemed plausible that the group discussion, which occurred before participants responded to these questions, might have affected their responses. To address this possibility, 38 new participants were asked to watch either the eager or vigilant video and to answer four questions about the speaker's message without participating in any other portion of the study.^{vi} For the question, "How much did the message focus on increasing students' enthusiasm?", participants viewing the eager video gave significantly higher ratings than did participants viewing the vigilant video ($M = 4.05$, $SD = 1.55$ and $M = 2.79$, $SD = 1.13$ respectively), ($t(36) = 2.87$, $p < .01$). For the question, "How much was the speaker concerned with students not slacking off?", participants viewing the vigilant video gave significantly higher ratings than did participants viewing the eager video ($M = 5.53$, $SD = 1.17$ and $M = 4.58$, $SD = 1.50$, respectively), ($t(36) = -2.17$, $p < .05$). For the question, "How much did the message focus on ensuring that students be careful?", participants viewing the vigilant video ($M = 3.63$, $SD = 1.67$) gave significantly higher ratings than did participants viewing the eager video ($M = 3.63$, $SD = 1.67$ and $M = 2.21$, $SD = 1.55$, respectively), ($t(36) = -2.72$, $p = .01$). Finally, for the question, "How much was the speaker concerned with students' working really hard?", ratings of participants who viewed the eager and vigilant videos did not differ significantly ($M = 4.74$, $SD = 1.94$ and $M = 5.47$, $SD = 1.17$, respectively), ($t(36) = -1.42$, $p > .10$). Overall, these results provide evidence that the message framing was successful.

3.3 DERIVATION OF DEPENDENT MEASURES

Prior to analyzing groups' evaluations of the speaker and his message, an exploratory factor analysis was conducted on the seven relevant items in Appendix E (items 2-8). Results of this analysis revealed two factors with eigenvalues greater than 1.0; these factors accounted for 72.56% of the variance.

A principal components factor analysis using Varimax rotation was then conducted to determine which items loaded on each factor. The first factor, accounting for 43.08% of the variance, contained four items pertaining to the speaker's attractiveness (item 5, "How likeable did the speaker seem?"; item 6, "How intelligent did the speaker seem?"; item 7, "How trustworthy did the speaker seem?"; and item 8, "How competent did the speaker seem?"). The second factor, accounting for 29.50% of the variance, contained two items pertaining to the speaker's message (item 2, "How persuasive were his or her arguments about the proposal?"; and item 3, "How convincing were his or her arguments?"). An additional item (item 4, "How coherent were his or her arguments?") did not load clearly on either factor and was therefore not included in subsequent analyses. Reliability analyses conducted on the two factors revealed that each formed a scale with satisfactory reliability (Cronbach's alphas of .83, and .92 for speaker attractiveness and message content respectively). Therefore, items 5, 6, 7, and 8 were averaged for each group to form a mean group "speaker attractiveness" score, and items 1 and 2 were averaged to form a mean "message content" score. These scores were used as the dependent variables in subsequent analyses.

3.4 GROUP EVALUATIONS OF SPEAKER ATTRACTIVENESS AND MESSAGE CONTENT

Separate 2 (group regulatory focus condition: promotion vs. prevention) X 2 (deviate message: eager vs. vigilant) analyses of covariance were conducted on the speaker attractiveness and message content scores discussed above. For the variable “speaker attractiveness”, a main effect of group regulatory focus was found, $F(1, 64) = 4.30, p < .05$, with promotion-focused groups rating the deviant less positively than prevention-focused groups ($M = 3.68, SE = 0.11$ and $M = 4.01, SE = .11$, respectively). The main effect of deviant message framing was not significant, $F(1, 64) = 0.12, p = 0.73$. However, a significant interaction between group regulatory focus and deviant message framing was obtained, $F(1, 64) = 4.07, p < .05$. As predicted, and shown in Figure 1, Promotion-focused groups rated an eager deviate less positively than a vigilant deviate, whereas prevention-focused groups rated a vigilant deviate less positively than an eager deviate.^{vii} To determine if group reaction to deviance in the two fit conditions differed significantly from that in the two non-fit conditions, an additional planned contrast analysis was conducted. Consistent with predictions, participants in the promotion-eager and prevention-vigilant conditions rated the deviate more negatively than did participants in the promotion-vigilant and prevention-eager conditions ($M = 3.69, SD = 0.62$ and $M = 4.00, SD = 0.66$, respectively), ($t(63) = -1.97, p < .05$).

For message content, no significant effects were obtained for group regulatory focus, $F(1, 64) = 2.44, p = .12$, deviate message framing, $F(1, 64) = 1.60, p = .21$, or the interaction between these variables, $F(1, 64) = 2.49, p = .12$. The overall mean (2.62) indicated that groups found the speaker’s message content to be unpersuasive across conditions.

4.0 DISCUSSION

Prior research indicates that groups react negatively to members who deviate from group consensus on opinion issues. A number of factors have been identified as influencing group reaction to deviance, including characteristics of the group and characteristics of the deviate. However, little attention has been devoted to how group characteristics interact with deviate characteristics in determining group reaction.

In the present study, this interaction was investigated using ideas derived from Regulatory Fit Theory (Higgins, 2000). Based on evidence that “fit” between regulatory focus (promotion vs. prevention) and strategic orientation in pursuing a goal (eagerness or vigilance) intensifies affective responses to stimuli, it was predicted that group members with a promotion focus would respond more negatively to deviates presenting eager rather than vigilant arguments, whereas members with a prevention focus would respond in exactly the opposite manner.

To test this hypothesis, group members were placed in either a prevention or promotion state and then engaged in a discussion in which they made a group decision on an issue. Following this discussion, groups were exposed to an individual (opinion deviate) endorsing an alternative viewpoint. The deviate’s message was framed in either an eager or a vigilant way, creating fit or non-fit with group regulatory focus.

After controlling for differences in chronic group regulatory focus, an interaction was found between manipulated group regulatory focus and deviate message framing. As predicted,

groups in fit conditions (promotion-eager and prevention-vigilant) evaluated the deviate more negatively than did groups in non-fit conditions (promotion-vigilant and prevention-eager). These results are consistent with prior work on regulatory fit and persuasion showing that, compared to individuals in non-fit conditions, those in fit conditions respond more negatively to stimuli to which they have an initially negative disposition (Cesario et al., 2004).

It is interesting that regulatory fit in the present study did not significantly affect group evaluation of the content of the deviate's message. Both fit and non-fit groups found the message to be unpersuasive ($M = 2.47$ and $M = 2.78$, respectively). One possible explanation for this discrepancy involves the relative salience of the two evaluative targets (speaker and message). In the present study, because participants watched the speaker on a videotape, rather than simply reading his message, they may have focused more on his characteristics than on those of his message. This in turn may have led to stronger regulatory fit effects for evaluations of the speaker than of the message. This tentative interpretation is consistent with prior work indicating that focus of attention can affect the operation of regulatory fit (Cesario et al., 2004, Study 4).

4.1 FUTURE DIRECTIONS

The present study contributes to the existing literature by demonstrating that the presence of collective regulatory fit can intensify negative group reaction to opinion deviance. Although this is an interesting finding, it is only a first step toward understanding how regulatory fit affects group reaction to members. For example, what if the target of evaluation for group members was not an opinion deviate but an opinion conformer? Regulatory Fit Theory would predict that group members in fit conditions would evaluate an opinion conformer more positively than

would members in non-fit conditions, because fit would intensify their initially positive reactions.

Beyond the study of reaction to opinion deviance and conformity in groups, Regulatory Fit Theory suggests interesting predictions for other aspects of group dynamics. In research using individuals, fit has been shown to strengthen task-relevant effort and attraction (see Higgins, 2000). Fit may have similar effects in groups, with attendant implications for brainstorming and other creative group tasks. For instance, groups experiencing fit should be more engaged with the brainstorming process and enjoy it more than non-fit groups, thereby increasing the quantity and quality of the ideas they produce.

Regulatory fit may also affect leadership effectiveness in groups. Research suggests that a critical component of leadership effectiveness is compatibility between a leader's style and characteristics of the group (see Levine & Moreland, 1998). One overlooked type of compatibility between leaders and followers is regulatory fit. It may be that leaders utilizing leadership strategies that fit their followers' collective group focus will be more effective than leaders who utilize strategies that do not fit their followers' focus.

Finally, compatibility between the chronic regulatory focus of prospective members and the recruitment strategies a group uses may influence the likelihood that prospective members will join. That is, prospective members should be more attracted to, and more likely to join groups that provide a fit experience for them. Research on these and related issues has the potential to extend our knowledge about group processes in new and interesting ways.

APPENDIX A

Promotion

Instructions: Please think about something you ideally would like to do. In other words, please think about a hope or aspiration you currently have. Please list the hope or aspiration in the space below. _____

Prevention

Instructions: Please think about something you think you ought to do. In other words, please think about a duty or obligation you currently have. Please list the duty or obligation in the space below. _____

APPENDIX B

(Promotion / Prevention)

Recently, in an effort to *(create greater academic opportunity for students / guard against inadequate student academic accomplishment)*, faculty at the University of Pittsburgh have been considering implementing a new *(degree enhancement program / graduation requirement)*. Starting in the next two years, students would *(have the chance to / be required to)* complete a 30-40 page senior thesis during their last year at Pitt. The thesis would report a research project appropriate to the student's major and would be supervised by a faculty member. The goal of the thesis is to *(support students in gaining more knowledge / make sure that students have acquired the necessary knowledge)* about their area of study. *(To succeed / To avoid failing)*, students would need to spend about 15 hours per week working on their thesis during their senior year, in addition to completing other course requirements. The thesis would be read by a three-person panel of faculty members, and seniors who *(did a good job would graduate / did not do a good job would not be allowed to graduate)*.

APPENDIX C

The psychology department is interested in how students feel about this (*opportunity / requirement*). Now that you have read the proposal, we would like you to discuss it as a group, with the goal reaching consensus about whether Pitt students should be required to complete a senior thesis before graduation. Please aim to spend at least 10 minutes discussing the issue and potential (*benefits / risks*) with the goal of reaching agreement about whether the proposal should be adopted.

PLEASE INDICATE YOUR GROUP'S DECISION BELOW:

Should the psychology department include a senior thesis as part of its graduation requirements (yes or no)? _____

PLEASE NOW LIST THREE ARGUMENTS SUPPORTING YOUR GROUP'S POSITION ON THIS ISSUE:

1. _____
2. _____
3. _____

APPENDIX D

(Eager/Vigilant)

I am in favor of the senior thesis proposal for Pitt. It seems to make a lot of sense. First of all, I think that if students write a thesis, they will learn more in their courses when they are freshmen, sophomores, and juniors. For example, if professors know their students will be writing a thesis when they are seniors, they may be more *(eager / careful)* to prepare good lectures. Students may also be more *(enthusiastic / concerned)* about studying if they know they will really need course information later. For example, they will probably *(read more than the assigned material / make sure to read the assigned material)*. All in all, if students know they will write a thesis, they will be more likely to *(work hard in / not blow off)* their courses.

A second reason has to do with jobs. Writing a thesis may affect how well students can compete for jobs after graduation. I think that students who *(try to do a good job / try not to do a bad job)* on their thesis will be more likely to succeed when they are compared to other graduating seniors entering the work world. This is because *(trying to write a good thesis / trying not to write a bad thesis)* will cause them to learn more in their majors, which will help them get into graduate schools. Maybe working on a thesis would also cause students to approach graduate admission tests with a *(more optimistic / less pessimistic)* attitude. If so, they might be *(more / less)* likely to *(study hard / not to study hard)* for them.

Last, I think a thesis would be good for Pitt's reputation with potential students. We should do everything we can to send a signal that Pitt tries to do what is *(best / right)* for its students. I've heard that students at lots of Ivy League schools already write a senior thesis. If

Pitt students did this too, our university might be seen as more (*eager / concerned*) about getting the best high school applicants.

As I guess you can tell, I support the thesis idea, even if it will mean a lot of work. It seems like a really valuable activity for students, and I think most people would approach it in a very (*enthusiastic / careful*) way. The thesis will take a lot of time, I guess, but that would be outweighed by the fact that students would be (*more likely to work hard / less likely to slack off*) in their senior year. So, I think it is a good idea for Pitt to introduce the senior thesis because we should (*eagerly pursue / be careful to do*) what is (*best / right*) for our students.

APPENDIX E

Instructions: Please answer the following questions about the videotape you just watched by circling the appropriate number.

1. What position did the speaker take on the senior thesis proposal?

1	2	3	4	5	6	7
Strongly Against it						Strongly In favor Of it

2. How persuasive were his or her arguments about the proposal?

1	2	3	4	5	6	7
Not at all persuasive						Very persuasive

3. How convincing were his or her arguments?

1	2	3	4	5	6	7
Not at all convincing						Very convincing

4. How coherent were his or her arguments?

1	2	3	4	5	6	7
Not at all coherent						Very coherent

5. How likeable did the speaker seem?

1	2	3	4	5	6	7
Not at all likeable						Very likeable

6. How intelligent did the speaker seem?

1	2	3	4	5	6	7
Not at all intelligent						Very intelligent

7. How trustworthy did the speaker seem?

1	2	3	4	5	6	7
Not at all trustworthy						Very trustworthy

8. How competent did the speaker seem?

1	2	3	4	5	6	7
Not at all competent						Very competent

9. How much do you think most other Pitt students would agree with the speaker's opinion about the thesis proposal?

1	2	3	4	5	6	7
Not at all						Very much

10. How eager and enthusiastic did the speaker seem?

1	2	3	4	5	6	7
Not at all						Very much

11. How careful and cautious did the speaker seem?

1	2	3	4	5	6	7
Not at all						Very much

12. How concerned was the speaker that Pitt students succeed?

1	2	3	4	5	6	7
Not concerned at all						Very concerned

13. How concerned was the speaker that Pitt students do not fail?

1	2	3	4	5	6	7
Not concerned at all						Very concerned

14. What is your overall opinion about the senior thesis proposal?

1	2	3	4	5	6	7
Strongly against it						Strongly in favor of it

APPENDIX F

Instructions: This set of questions asks you about specific events in your life. Please indicate your answer to each question by circling the most appropriate number above it.

1. Compared to most people, are you typically unable to get what you want out of life?

1	2	3	4	5
Never or seldom		Sometimes		Very often

2. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?

1	2	3	4	5
Never or seldom		Sometimes		Very often

3. How often have you accomplished things that got you “psyched” to work even harder?

1	2	3	4	5
Never or seldom		A few times		Many times

4. Did you get on your parents’ nerves often when you were growing up?

1	2	3	4	5
Never or seldom		Sometimes		Very often

5. How often did you obey rules and regulations that were established by your parents?

1	2	3	4	5
Never or seldom		Sometimes		Always

6. Growing up, did you ever act in ways that your parents thought were objectionable?

1	2	3	4	5
Never or seldom		Sometimes		Very often

7. Do you often do well at different things that you try?

1	2	3	4	5
Never or seldom		Sometimes		Very often

8. Not being careful enough has gotten me into trouble at times.

1	2	3	4	5
Never or seldom		Sometimes		Very often

9. When it comes to achieving things that are important to me, I find that I don't perform as well as I would ideally like to do.

1	2	3	4	5
Never true		Sometimes true		Very often true

10. I feel like I have made progress towards being successful in my life.

1	2	3	4	5
Certainly false				Certainly true

11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.

1
Certainly false

2

3

4

5
Certainly true

APPENDIX G

Please answer the following questions.

What do you think the purpose of this experiment was?

Did you know any of your other group members before the experiment today? If so, how did you know them?

If you have any other comments about the experiment, please write them below.

Please answer the following background questions:

Age: _____ Gender: _____

Race/Ethnicity:

_____ White/Caucasian _____ Black/African-American _____ Asian
_____ Hispanic/Latino _____ Other (please specify) _____

REFERENCES

- Avnet, T., & Higgins, E. T. (2006). How regulatory fit affects value in consumer choices and opinions. *Journal of Marketing Research, 43*, 1-10.
- Berkowitz, L., & Howard, R. C. (1959). Reactions to opinion deviates as affected by affiliation need (n) and group member interdependence. *Sociometry, 22*, 81-91.
- Branscombe, N. R., Wann, D. L., Noel, J. G., & Coleman, J. (1993). Ingroup or out-group extremity: Importance of the threatened social identity. *Personality and Social Psychology Bulletin, 19*, 381-388.
- Camacho, C. J., Higgins, E. T., & Luger, L. (2003). Moral value transfer from regulatory fit: What feels right *is* right and what feels wrong *is* wrong. *Journal of Personality and Social Psychology, 84*, 498-510.
- Coull, A., Yzerbyt, V. Y., Castano, E., Paladino, M. P., & Leemans, V. (2001). Protecting the ingroup: Motivated allocation of cognitive resources in the presence of threatening ingroup members. *Group Processes and Intergroup Relations, 4*, 327-339.
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from “feeling right.” *Journal of Personality and Social Psychology, 86*, 388-404.
- Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes, 69*, 117-132.

- Doms, M. (1984). The minority influence effect: An alternative approach. In W. Doise & S. Moscovici (Eds.), *Current issues in European social psychology* (Vol. 1, pp. 1-33). Cambridge, UK: Cambridge University Press.
- Faddegon, K., Scheepers, D., & Ellemers, N. (2006). *If we have the Will, there will be a way: Regulatory focus and group identity*. Unpublished manuscript, Leiden University, Netherlands.
- Festinger, L.(1950). Informal social communication. *Psychological Review*, *57*, 271-282.
- Forster, J., Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the “Goal Looms Larger” effect. *Journal of Personality and Social Psychology*, *75*, 1115-1131.
- Freitas, A. L., & Higgins, E. T. (2002). Enjoying goal-direction action: The role of regulatory fit. *Psychological Science*, *13*, 1-6.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, *12*, 1280-1300.
- Higgins, E. T. (2000). Making a good decision: Value from “fit”. *American Psychologist*, *55*, 1217-1230.
- Higgins, E. T. (2006). Value from hedonic experience *and* engagement. *Psychological Review*, *113*, 439-460.
- Higgins, E. T., Bond, R. N., Klein, R., & Strauman, T. (1986). Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. *Journal of Personality and Social Psychology*, *51*, 5-15.
- Higgins, E. T., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N., & Taylor, A. (2001). Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology*, *31*, 3-23.
- Higgins, E. T., Idson, L. C., Freitas, A. L., Spiegel, S., & Molden, D. C. (2003). Transfer of value from fit. *Journal of Personality and Social Psychology*, *84*, 1140-1153.

- Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology, 72*, 515-525.
- Hornsey, M. J., & Jetten, J. (2003). Not being what you claim to be: Imposters as sources of group threat. *European Journal of Social Psychology, 33*, 639-657.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 233-265). New York: McGraw-Hill
- Lauderdale, P. (1976). Deviance and moral boundaries. *American Sociological Review, 41*, 660-676.
- Levine, J. M. (1989). Reaction to opinion deviance in small groups. In P. B. Paulus (Ed.), *Psychology of group influence* (2nd ed., pp. 187-231). Hillsdale, NJ: Erlbaum.
- Levine, J. M., & Higgins, E. T. (2001). Shared reality and social influence in groups and organizations. In F. Butera & G. Mugny (Eds.) *Social influence in social reality: Promoting individual and social change* (pp. 33-52). Ashland, OH: Hogrefe & Huber Publishers.
- Levine, J. M., Higgins, E. T., & Choi, H. S. (2000). Development of strategic norms in groups. *Organizational Behavior and Human Decision Processes, 82*, 88-101.
- Levine, J. M., & Moreland, R. L. (1998). Small groups. In D. T. Gilbert & S. T. Fiske (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 415-469). New York: McGraw-Hill.
- Levine, J. M., & Thompson, L. (1996). Conflict in groups. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 745-776). New York: Guilford Press.
- Marques, J. M. Abrams, D., & Serodio, R. G. (2001). Being better by being right: Subjective group dynamics and derogation of ingroup deviants when generic

- norms are undermined. *Journal of Personality and Social Psychology*, 81, 436-447.
- Marques, J. M., Abrams, D., Paez, D., & Hogg, M. A. (2001). Social categorization, social identification, and rejection of deviant group members. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell Handbook of Social Psychology: Group Processes* (pp. 400-424). Malden, MA: Blackwell Publishers.
- Marques, J. M., Abrams, D., Paez, D., & Martinez-Taboada, C. (1998). The role of categorization and in-group norms in judgments of groups and their members. *Journal of Personality and Social Psychology*, 74, 976-988.
- Marques, J. M. & Yzerbyt, V. Y. (1988). The black sheep effect: Judgmental extremity towards ingroup members in inter- and intra-group situations. *European Journal of Social Psychology*, 18, 287-292.
- Miller, C. E., & Anderson, P. D. (1979). Group decision rules and the rejection of deviates. *Social Psychology Quarterly*, 42, 354-363.
- Moscovici, S., & Lage, E. (1976). Studies in social influence III: Majority versus minority influence in a group. *European Journal of Social Psychology*, 6, 149-174.
- Moscovici, S., & Nemeth, C. (1974). Social influence II: Minority influence. In C. Nemeth (Ed.) *Social psychology: Classic and contemporary integrations* (pp. 217-249). Chicago: Rand-McNally.
- Paicheler, G. (1977). Norms and attitude change II: The phenomenon of bipolarization. *European Journal of Social Psychology*, 6, 405-427.
- Rosnow, R. L., & Rosenthal, R. (1989). Definition and interpretation of interaction effects. *Psychological Bulletin*, 105, 143-146.
- Sampson, E. E., & Brandon, A. C. (1964). The effects of role and opinion deviation on small group behavior. *Sociometry*, 27, 261-281.
- Schachter, S. (1951). Deviation, rejection, and communication. *Journal of Abnormal and Social Psychology*, 46, 190-207.

- Schachter, S., Nuttin, J., DeMonchaux, C., Maucorps, P., Osmer, D., Duijker, H., et al. (1954). Cross-cultural experiments on threat and rejection. *Human Relations*, 7, 403-439.
- Schmitt, M. T., & Branscombe, N. R. (2001). The good, the bad, and the manly: Threats to one's prototypicality and evaluations of fellow ingroup members. *Journal of Experimental Social Psychology*, 37, 510-517.
- Shah, J., & Higgins, E. T. (1997). Emotional evaluations of self and other attitude objects: Distinct sensitivities from regulatory focus. *Unpublished manuscript*. Cited in Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 12, 1280-1300.
- Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285-293.
- Singer, J. E., Radloff, L. S., & Wark, D. M. (1963). Renegades, heretics, and changes in sentiment. *Sociometry*, 26, 178-189.
- Spiegel, S., Grant-Pillow, H., & Higgins, E. T. (2004). How regulatory fit enhances motivational strength during goal pursuit. *European Journal of Social Psychology*, 34, 39-54.
- Straumann, T. J., & Higgins, E. T. (1987). Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology*, 53, 1004-1014.
- Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.
- Wiggins, J. A., Dill, F., & Schwartz, R. D. (1965). On "status liability." *Sociometry*, 28, 197-209.

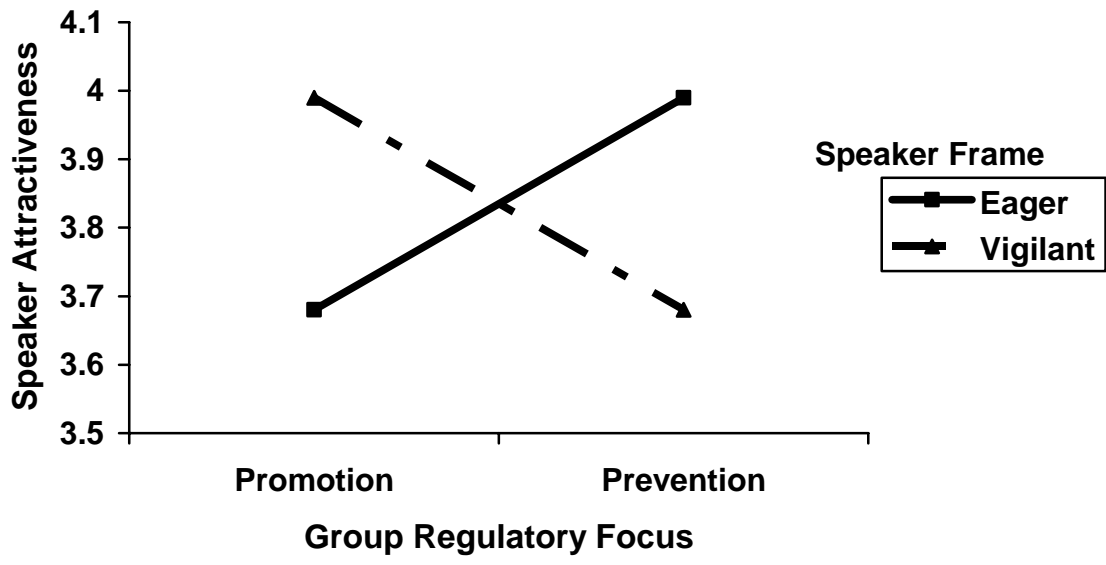


Figure 1. Adjusted means showing an interaction between group regulatory focus and deviant message framing

FOOTNOTES

ⁱ All of this work has used individuals (rather than groups) as the unit of analysis.

ⁱⁱ The wording of Appendix B was developed with the advice of E. Tory Higgins.

ⁱⁱⁱ Audiotape data, which were collected for exploratory purposes, have not been analyzed and so will not be discussed further.

^{iv} The wording of Appendix D was developed with the advice of E. Tory Higgins.

^v Because participants in each group interacted during the study, it is likely that there was dependence in group members' scores. Therefore, group-level data were used in all the following analyses (cf. Kenny, Kashy, & Bolger, 1998).

^{vi} All of these questions were answered using 7-point scales ranging from "not at all" to "very much". Because participants did not interact with one another, their responses were analyzed at the individual level.

^{vii} Means displayed in Figure 1 were adjusted to remove lower order effects, as suggested by Rosnow and Rosenthal.