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Abstract

This study examines the relationships between group faultlines, appraisals (evaluations) of group members, emotional responses, and performance in groups. The study uses a 2 by 2 experimental design, crossing demographic alignment (alignment vs. no alignment) and appraisals (instrumental vs. intrinsic) as between-subjects variables. Data from 5 types of measurement were used to analyze the effects of member alignment and appraisals.

Key words: group faultlines, emotions, conflict, and performance

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Research on group composition has shown that different groups have different "faultlines," which involves different potential for splitting into subgroups (Gibson and Vermeulen, 2003; Lau and Murnighan, 1998; 2005; Li and Hambrick, 2005; Thatcher, Jehn, and Zanutto, 2003). Faultlines occur when group members align along one or more demographic characteristics causing a group to split into fairly homogeneous subgroups. According to faultline theory, the *nature* of members' alignments (social category vs. informational) may trigger different processes (which may be more appropriate to some tasks than others). For example, subgroups based on informational faultlines (members' alignment along education and seniority) can operate in workgroups as "healthy divides" that stimulate effective decision making processes and foster team learning. While the majority of studies on faultlines have focused on exploring cognitive processes behind faultline dynamics, little research has been done to uncover the emotional aspect of faultlines in decision making groups.

Research on human emotions suggests that how we think about an event influences how we will feel about it. If two people interpret the same event in different ways, they may feel different emotions. Emotions felt toward other people might be positive (e.g., affection, liking) or negative (e.g., anger or contempt). According to one theory, if we think that other people have positive qualities or have helped us to achieve our goals, we will like them; if we think that other people have blocked our goals, we will feel anger toward them; and if we think that other people have undesirable qualities, we will feel contempt (disrespect) toward them. This study is designed to bridge the existing gap in group research and bring the (faultlines and emotions) perspectives together.

We therefore, are interested in looking at how (a) group faultlines, (b) appraisals of group members, and (c) emotions toward group members might affect a group's performance. More specifically, we first examine whether people instructed to think about goal blockages feel greater anger and whether people instructed to think about undesirable qualities of group members feel more contempt. We also investigate how (a) group faultlines, (b) appraisals of group members, and (c) emotions affect group processes (e.g., conflict) and performance. Some questions that we are trying to answer in this study are whether stronger faultlines result in better or worse performance; whether performance will be worse if people see other group members as having undesirable qualities rather than as blocking goals; whether performance will be worse if contempt is felt instead of anger; and whether different faultline bases (information-based or social category-based) promote distinct emotions and/or distinct conflict profiles in groups.

Methods

Sample

Seventy undergraduate students (19 three-, four-, and five-person groups) from an East Coast university participated in the experiment for a course credit. The mean age of the participants was 24.7 years (range = 19-41 years). The majority of the participants (70.5%) were white; 6.8% were Asian; 9.1% were black; and 11.4% were Hispanic. The participants primarily identified themselves with 22 national heritages: the most often mentioned were Polish (9.4%), Korean and Indian (both are 8.7%), Italian (7%), Chinese (6.1%), and Irish (5.2%). The participants also identified *secondary* national heritages: the most often mentioned secondary heritages were German (14.8%), Irish (13.9%), English (7.8%), and Russian (5.2%). Seventy two percent of the participants were female.

Task Procedure

The participants were asked to perform the "Winter Survival Task" (Johnson & Johnson, 1975; see also Gaertner et al., 1989); this task includes three phases. During the first phase, each group *member* has to come up with an individual ranking of the importance for survival of 12 items recovered from a plane crash, in order from most to least important. In the second phase, each *group* must chose between two strategies (subgroup versus group work) for moving from the three, four, or five individual rankings to two alternate rankings endorsed by the group. Finally, each group has to employ the method of group consensus in coming up with the best single ranking the group can agree upon. The participants were told that they were participating in a decision-making study and were debriefed after the completion of the study.

Experimental Manipulations

Weak vs. strong faultlines. We used a 2 x 2 quasi-experimental design, crossing demographic alignment (alignment vs. no alignment) and appraisals (instrumental vs. intrinsic) as between-subjects variables. One month before the study, participants were asked to provide information about their race, gender, national heritage, and other individual characteristics. Groups were formed using this information. Some groups were composed of participants representing two genders, races, and national heritages (e.g., two Asian-Chinese male students and two white-Irish female students) creating the strong potential faultline condition. Other groups were composed with either all male (or female) and racially and nationally homogeneous participants (e.g., all white Irish men) or racially and nationally heterogeneous participants (e.g., one Asian-Chinese male, one white-Irish female, one Hispanic-Colombian male, and one black-Barbadian female) creating the weak potential faultline condition.

Instrumental vs. intrinsic appraisals. After choosing a strategy (subgroup strategy vs. whole group strategy) for getting from three or four separate individual rankings to two group-endorsed rankings in phase 2, groups were given feedback on their choice of strategy. All group members were told that according to the task designers, their group had not chosen a superior strategy. Following this negative outcome, in an "Observation of Group Process" questionnaire that was completed individually, each group member was asked either to "list the undesirable quality or qualities that people have shown in your group" (intrinsic appraisal manipulation) or to "list the obstacle or obstacles that people have created in your group" (instrumental appraisal manipulation).

Measurement Methodologies

To rigorously operationalize the constructs under study, we used five measurement methodologies: contextual ratings by independent raters, content-analyzed audiotapes, pre- and post-experimental questionnaires (the items were interspersed to avert consistency or order effects), observational reports with behavior indicators, and objective measures of group performance. We discuss the triangulation of these multiple methods in our construct validation section below. We adapted the Faultline algorithm developed by Thatcher, Jehn, and Zanutto (2003) to measure potential faultline strength.

Contextual ratings. Two raters who were unaware of the hypotheses and experimental conditions listened to each group's audiotape and rated the constructs under study. They were given definitions of each construct and were asked questions such as "To what extent does this team split into subgroups based on demographic characteristics?" (activated faultlines). For each variable, the raters were asked to assign a score on a scale of 1 to 5 (1=not at all and 5=a lot).

When the two raters disagreed by more than one point, they discussed their ratings until they reached an agreement.

Content-analyzed audiotapes. Two raters blind to hypotheses and conditions conducted a content analysis of verbatim transcribed audio tapes. They divided each transcript into "thought units" based on the procedure described by Weldon, Jehn, and Pradhan (1991) and classified all thought units into content categories directly relevant to the proposed research model: active group faultlines, intersubgroup conflict, emotions, member satisfaction, creativity, and performance.

Potential Ethnic Faultlines. Potential ethnic faultlines were measured using a faultline algorithm developed by Thatcher, Jehn, and Zanutto (2003). This *Fau* measure calculates the percent of total variation in overall group characteristics accounted for by the strongest group split by calculating the ratio of the between group sum of squares to the total sum of squares.

Pre – and Post – Experimental Questionnaire. We collected self-reports on perceived active faultlines, coalition formation, intersubgroup conflict, emotions, appraisals, and member satisfaction before and after the task. We assessed active group faultlines with three items (e.g., "My team split into subgroups during this exercise", "My team broke into two groups during this exercise"). Participants were also asked open-ended questions such as "If your group split into two groups, on what characteristic did your team split into subgroups (e.g. race, gender, major, etc.)." Intersubgroup conflict (task and relationship-based) was measured using items adapted for the intersubgroup level of analysis based on Jehn's (1995) items. We also included items for our manipulation checks on alignment and appraisals.

Results

At this point in time, the first round of data collection has been done. The analyses of relationships between faultlines, appraisals, emotions, and group performance are underway. To be continued!!!

Discussion

To be continued!!!

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