THE IMPACT OF SIMILARITY ON INFLUENCE ATTEMPTS DURING GROUP DISCUSSIONS

by

Jennifer N. Ervin

_____

A Thesis Submitted to the Faculty of the

THE DEPARTMENT OF COMMUNICATION

In Partial Fulfillment of the Requirements
For the Degree of

MASTER OF ARTS

In the Graduate College

THE UNIVERSITY OF ARIZONA

2012

STATEMENT BY AUTHOR

This thesis has been submitted in partial fulfillment of requirements for an advanced degree at the University of Arizona and is deposited in the University Library to be made available to borrowers under rules of the Library.

Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgement of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the head of the major department or the Dean of the Graduate College when his or her judgment the proposed use of the material is in the interests of scholarship. In all other instances, however, permission may be obtained from the author.

SIGNED: _Jennifer Ervin_____

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

_____ 7/7/2012

Joseph A. Bonito Date
Professor of Communication

ACKNOWLEDGEMENT

I am extremely thankful to my advisor, Dr. Joseph Bonito, whose constant encouragement, and invaluable support and guidance enabled me to become a better student and researcher. I attribute the successful completion of my Master's thesis and degree to his generosity, and the vast reserve of his time, knowledge, and patience.

I also wanted to thank Dr. Harwood and Dr. Segrin, whose thoughtful advice improved the theoretical foundation and statistical sophistication of this project.

In addition, I wanted to thank Tony Schmidt for his assistance with obtaining reliability on the segmenting and coding of the data.

Lastly, I wanted to thank my family and friends, whose constant support and encouragement make all of my accomplishments possible.

TABLE OF CONTENTS

TABLE OF CONTENTS - *Continued*

TABLE OF CONTENTS – *Continued*

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Two studies were conducted in order to investigate the role of similarity and influence processes in groups. It was proposed that if group members believe they share one or more salient characteristics (i.e., relevant to the evaluation process) with a target it will (a) fundamentally change the way those group members orient themselves towards that target, and (b) subsequently affect the way those members contribute to the group discussion. Findings suggested that group members who were similar to a target were perceived as having contributed more novel arguments to the group discussion than those dissimilar, and high self-reported levels of communication competence significantly predicted a person's ability to generate arguments about a target. Limitations and future directions are discussed.

Keywords: groups, influence, decision-making, similarity, competence, argumentation

INTRODUCTION

One of the most compelling aspects of small group research is that group discussion often consists of multiple sources of influence. The ability to explicate the process-outcome link depends on understanding the relationship between types of influence and their manifestation during discussion. One type of influence is called normative, which typically involves social comparison processes. For example, members sometimes feel compelled to manage impressions and perceptions during small group discussions and in doing so they might adjust their communicative behaviors and their decision preferences in order to become or remain socially desirable to other members of the group (Festinger, 1954). Another type of influence is informational, which assumes a more rational approach to communication and decision-making. In short, group members process the information available to them from a variety of sources, and then evaluate the information to assess and choose the best available alternative (Burnstein & Vinokur, 1977). Some researchers (Hinsz & Davis, 1984; Vinokur & Burnstein, 1974, 1978) treat these two approaches as discrete and competing forces of influence during small group discussions. Others (Abrams & Hogg; 1990; Hirokawa, 1990; Laughlin & Ellis, 1986; Propp, 1999; Sanders & Baron, 1977; Turner, 1991, 1999) suggested that these processes are not mutually exclusive, and argue that both are likely to be operating in groups at any given time.

One of the goals of this project is to identify factors of discussion and context that are associated with normative and information influence. Following Wittenbaum, Hollingshead, and Botero's (2004) suggestion that theories and models of small group processes should reflect what happens in real-world groups, especially with the use of (equivalent) real-world tasks, I examine how groups discuss and make judgments about a target's characteristics and qualities qualities, as in hiring committees (e.g., faculty search committees) and political nominating committees. It is reasonable to assume that both informational and normative influence processes are at work, but the question of how and when such influences operate remains open.

Specifically, I am concerned with the role of perception-related social processes in the development of normative and informational influence and their relation to decision outcomes. For example, when a hiring committee evaluates a candidate's personal or professional attributes, it is possible that a group member may share one or more of a candidate's characteristics. Regardless as to whether the shared characteristic (i.e., similarity) is real or perceived, similarity may manifest on readily observable traits, for example based on age or race, or on a more abstract level, like communication style, or leadership skills. The implication is that similarity on a characteristic important to the group's evaluation criteria has the potential to change a group member's preference for the candidate, as we know that similarity typically breeds liking (Chen & Kenrick, 2002).

Subsequently, similarity with a candidate may impact the types of arguments and persuasive attempts made by group members who share a trait or characteristic with a candidate. Similarity may also have social implications for group members, depending on the manner in which the shared characteristic is discussed and evaluated by other group members. While some theories (e.g. social identity theory, self-categorization theory) have acknowledged that forms of identification with others can have important effects on behaviors and attitudes, to my knowledge the relationship between similarity and influence processes has yet to be examined in small group contexts. Moreover, beyond hiring committees, perceived similarity between group members' and non-group members' (e.g., a candidate's) characteristics may have implications for other groups, such as performance review committees or juries. To explore the effects of similarity in decision-making groups, I will draw on the literature on normative and informational influence to provide a theoretical background on these topics. Following that, I will address the body of research that suggests that normative and informational influences are complementary processes. I will then briefly discuss the literature on communication competence, as it is the shared characteristic that will be examined in this study (i.e., if a given group member's self-perceived communication competence is similar to that of a candidate). Finally, I outline the methods, present the results, and discuss the findings of two related studies that investigate these processes.

TWO TYPES OF INFLUENCE THAT MAINFEST DURING GROUP DISCUSSIONS

Normative Influence

Festinger (1954) argued that all human behavior is the product of social comparison processes that consist of a combination of personal beliefs, values, opinions, and efficacy. Although his theory of social comparison in its entirety will not be reviewed here, Festinger (1954) did make some strong and relevant claims about human nature. A major theme in his work was that people want to hold accurate opinions and evaluations of the world and of themselves. However, because people were presumed to lack objective means to evaluate perceptions, Festinger (1954) argued that people observe others to whom they anchor and compare themselves; if the comparison process produces disparities between one's own and others' behavior, one might take action (e.g., changing one's own or others' behavior) to reduce the discrepancy.

Asch (1951, 1955, 1956) famously investigated how the presence of others affects identity, behavior, and the judgments we make of ourselves and social situations. Some of Asch's (1951, 1956) noteworthy findings indicated that (a) roughly 37% of all people who otherwise and alone accurately performed simple tasks would subsequently succumb to pressure and make significantly more mistakes on similar tasks when in a group where all other members (who were experimental confederates) stated incorrect answers, and

(b) conformity to the majority dropped significantly (from 32% down to 5%) when the participant had at least one other person who either gave the correct answer or gave a different answer than that of the rest of the group. Although his findings were somewhat startling to those who believed in the strength of people's desires to assert their individuality, Asch (1955) optimistically reported that once the studies were complete, his participants "agreed nearly without exception that independence was preferable to conformity" (p. 34).

Asch was not the only researcher of that time with an interest in social pressures and conformity. Deutsch and Gerard (1955) were concerned with normative influence processes, which they defined as a situation in which a person attempts to conform to some source of positive expectations. This definition had two interesting implications. First, Deutsch and Gerard (1955) suggested that an internal social process exists in which a person is compelled to conform to self-esteem and approval-related self-expectations. Second, conformity might be a consequence of positive expectations of another person, or of a group. In replication of Asch's (1955) study, Deutsch and Gerard (1955) found that group expectations, as opposed to self-expectations, had the greatest impact on individual judgments. As later elaborated by Sherif (1961), early studies on normative influence by Asch, Deutsch and Gerard, and others, provided support for the notion that normative expectations and influence are inherently social and relational issues.

Conversely, deviation or nonconformity is a departure from something (i.e., socially acceptable behavior typically referred to as norms).

In an attempt to combine these perspectives, a review of the conformity literature during the 1950's by Turner (1991) suggested that when normative influence and pressure to conform exist in groups, it creates a causal structure that (presumably) helps groups achieve their goals. He suggested that conformity occurs when (a) important others have the power to reward or punish a person through various social mechanisms (e.g., affiliation or isolation), (b) others' power to reward or punish compel people to conform to social norms out of a desire to gain social approval, and (c) social pressures like desirability needs occur when in the presence of others who have the ability to detect nonconformity. Following this line of thinking, the view taken here is that normative influence is social in nature, and is related to others' expectations and standards.

Other researchers also emphasize the importance of expectations in terms of normative influence and conforming behaviors during group interaction. For example, Troyer and Younts (1997) explained that group interactions are driven by three motives: (a) the need of group members to contribute to the group's performance and success, (b) the desire to preserve or attain status within the group, and (c) to facilitate continued communication between group members. In order to achieve these goals group members must try to simultaneously manage and adhere to performance-related self-expectations

and the expectations other group members have (Deusch & Gerard, 1955; Troyer & Younts, 1997). Furthermore, Goffman (1967) suggested that failure to adhere to the expectations of other group members would disrupt the social setting and thus impede effective communication between group members.

From this view, individual and group-related expectations, as well as social desirability needs, may affect the ways in which group members interact with one another. As suggested by Festinger (1954), people compare themselves with others as a way to ensure social appropriateness; therefore perceptions of similarity can impact relationships between group members (see more below). Simply put, we like those who are like us (Chen & Kenrick, 2002). This is especially true when people share characteristics that are generally viewed in a positive manner. The implication for communication processes is that "people who share certain traits, even if they are not conscious of those traits, are more inclined to interact with one another effectively because they use common referents in perceiving, interpreting, and acting on social information" (Schaubroeck & Lam, 2002, p. 1121). Therefore, perceptions of similarity has the potential to impact inter-member relations.

Within organizational contexts, a number of studies have shown that expectations and perceived similarity have social *and* professional repercussions. Byrne (1971) called this the similarity-attraction hypothesis, where perceived similarity with a target resulted

in more favorable ratings of that person. For example, perceived similarities between a job applicant and an interviewer were positively associated with eventual decision selections (Goldberg, 2005; Schaubroeck & Lam, 2002). In addition, Jackson et al. (1991) found that organizations seek applicants who are similar to current organizational employees, where demographic similarity had "the greatest effect on entry-level selection decisions and promotions" (p. 685).

In relation to the current study, membership on a hiring committee typically requires group members to evaluate and make judgments about a candidate's characteristics in order to assess that person's suitability for a position. During this group decision-making process (e.g., hiring a person), candidates' personal and professional attributes are likely to become discussion topics, which in turn likely has some bearing on the group's decision. As candidates are discussed and evaluated by the group, it is also likely that candidates' characteristics will be categorized as neutral, or positively or negatively valenced (Propp, 1997). The valenced evaluations made about candidates' characteristics during group discussions may also have important implications for inter-member relations.

To see how valence might influence decision-making, consider members of a hiring committee who might express concerns regarding a candidate's relative inexperience. In this situation, a committee member who also lacks experience may feel

compelled to take action in order to avoid negative associations with the candidate in question. A simple way for a person to avoid association with the negative attribute is to avoid mentioning it during group discussions, and/or avoid calling others' attention to it. Here, the group member who is similar to the candidate would avoid discussing the candidate's lack of experience, as well as avoid mentioning his or her own lack of experience. Avoidance is an especially likely response when a person feels like he or she will be unable to change others' opinions about the negative attribute (Roese & Olson, 2007).

Another potential response to perceived similarity with a candidate's negatively judged characteristic would be the manipulation of others' views about the characteristic in question (Festinger, 1954; Roese & Olson, 2007) out of concern for being associated with the candidate who possesses the characteristic in question. Manipulating others' views of the characteristic might involve a small risk of exposing the fact that he or she (e.g., the hiring committee member) possesses the characteristic. However, changing others' opinions with regard to the characteristic also provides the committee member with the most direct method for managing the discrepancy between his or her own traits and those desired or held in high regard by the group. Continuing on with the previous example, the committee member who also lacks experience may bring up positive aspects of inexperience, like the ability to train the person to the exact standards of the

organization's needs, and objectivity when it comes to "office politics". This allows the committee member to use the candidate as a proxy to manage his or her own possession of the shared and negatively judged characteristic. In doing so, a group member can address the potential negative social repercussions with the group (e.g., putting a positive spin on a previously negatively judged characteristic) without calling direct attention to the fact that he or she also possesses the characteristic in question. Furthermore, an individual who perceives the ability to change others' negative judgments about a shared characteristic is likely to use a communicative (rather than avoidant) response to such situations (Roese & Olson, 2007). In addition, as Wittenbaum et al. (2004) noted, it is common for a group member to put a positive spin on a negative piece of information if that information is preference-consistent, so a communicative response that attempts to change others' views about a candidate's characteristic would not likely elicit much direct attention from other group members. Put another way, a group member's similarity with a candidate will compel the group member to use avoidant tactics like distancing him- or herself from the candidate possessing the negatively judged characteristic, or to try to shift the valence of the negative judgment related to the shared characteristic. Thus, the candidate serves as a potential proxy for members of the hiring committee to use communicative strategies to indirectly negotiate and manage their own position and social desirability during group discussions.

Similarity with a candidate based on a positively valenced characteristic may also have social implications for group members. For example, Cialdini and De Nicholas (1987) suggested that individuals want to connect themselves to favorable others. They described individuals as self-presenters, and observers as important relevant others in an individual's life. Cialdini and De Nicholas (1987) argued that "even the most elementary forms of association can produce powerful psychological effects within observers and that self-presenters will systematically attempt to manage those effects for their own advantage" (p. 630). Similarly, Kaplan (1987) argued that normative influence models assume that humans are by nature social beings who aim for approval, belongingness, harmony, and cohesion. Thus, group members who are similar to a candidate on salient characteristics are likely to take advantage of positive responses other committee members have towards a characteristic in order to solidify their desirability to the group (Cialdini & De Nicholas, 1987; Festinger, 1954).

From a normative influence perspective, self- and group-related expectations and social desirability impact the ways in which group members influence each other during decision-making tasks. Normative influence, however, is not a necessary feature of attitude change and behavior during group discussion. Social influence often requires that members provide support and evidence for their positions and claims. In the

following section, I address the role of information influence on group processes and outcomes.

Informational Influence

In contrast to normative influence, informational influence has been defined as "influence to accept information obtained from another as evidence about reality" (Deutch & Gerard, 1955, p. 629). As later elaborated by Propp (1999), the process of informational influence involves the sharing and evaluating of available data, which allows members to influence one another based on task-related knowledge (verbally or nonverbally communicated facts, beliefs, attitudes, values, opinions, presumptions, and so on), as well as interpreting and organizing available information.

Persuasive arguments theory (PAT) is the prototypical individual-level account of informational influence during group discussions. Early advocates of PAT (see Vinokur & Burnstein, 1974) suggested that prior to the group discussion, people cognitively generate and pool arguments, ideas, and mechanisms of categorization in order to classify and evaluate the available decision alternatives in order to develop a preference. In this context, the operational definition of an argument is an assertion or inference that follows from a line of reasoning (Burnstein & Vinokur, 1977). Generally, PAT predicts that informational influence would compel group members to evaluate and re-evaluate their positions by creating arguments for or against available decision alternatives, and

subsequent group preferences are the result of individuals' detection of the decision alternative with the greatest number of arguments in favor of the alternative (Burnstein & Vinokur, 1977). This perspective recognizes that arguments vary based on perceived issue importance, valence, and persuasiveness, yet only a certain amount of potential arguments exist either for or against any particular alternative (Burnstein & Vinokur, 1977; Madsen, 1978). Moreover, not all arguments are known to any given group member--they are, in effect, novel to some participants. Thus, novel arguments made during group discussions are hypothesized to be more persuasive than arguments already known to group members. Furthermore, group interaction, from this perspective, is a medium for individuals to work out and state their positions for or against decision alternatives (Myers & Lamm, 1976).

The PAT model has generally received empirical support. For example, in an effort to explain group polarization, Vinokur and Burnstein (1974) found that predicted shifts in group preferences as a consequence of information and argument pooling by group members were highly correlated with actual shifts in individual preferences. Vinokur, Trope, and Burnstein (1975) also found that the distributions of arguments created in private by individual group members (e.g., cognitive arguments) were nearly identical to contributions of arguments during discussion, "suggesting that discussion does not elicit new kinds of arguments" (p. 146). Moreover, Vinokur et al. (1975) found

that the arguments made by an individual in favor of a decision alternative were predominantly in the same direction of the eventual shift in the group's final choice. In a later study, Vinokur and Burnstein (1978) found that perceived validity and persuasiveness of an argument were directly related to the argument's novelty, which also predicted the direction of change in group outcomes. Later, Isenberg (1986) conducted a meta-analysis on the polarization literature and tested some of PAT's assumptions. Results indicated that the number of positive and negatively valenced pre-discussion arguments were highly correlated with group polarization (i.e., the group shifts towards extreme positions), that the proportion of risky to cautious arguments given to group members before discussion allowed for prediction of group polarization, and that novel arguments produced a stronger polarization effect (Isenberg, 1986). These findings indicated that PAT does offer fairly accurate predictions and accounts for changes in preferences in individual group members in relation to a particular set of group outcomes.

Social decision scheme (SDS) models, a derivative of PAT, make similar claims about informational influence, but rely on even fewer assumptions about the process itself by focusing on the relationship between the distribution of preferences and the decision rule to predict group outcomes (Stasser, 1996). For example, Laughlin and Ellis (1986) found that groups were able to solve certain types of tasks under a relatively circumscribed set of conditions if just one member had the "right" type of information,

and that member was able to relay that information during the group discussion. In this case, demonstrability (i.e., that a "correct" solution is easily recognized by the group if a member provides key information) is the mechanism that allows for informational influence to take place. In addition, research using valence models has shown that group decisions often favor the alternative that has the most positive and least negative comments made about it during discussion (McPhee et al., 1981). In this case the valence of information and contributions to the group discussion are the mechanism that allow for influence during discussions. Therefore, theories that focus on preference distributions and the way such preferences are mentioned during discussion, as in PAT and valence models, provide an empirically supported, attractive, and structured explanation of how individual-level information processing can lead to group-level influence.

Scholars, however, have criticized PAT on several grounds. One criticism of PAT is that cognitive characteristics of arguments do not match well with arguments produced during discussion (Meyers, 1989). For example, the order in which a person generates arguments before the group discussion, the valence, and the perceived persuasiveness of arguments impose limitations on group members' ability to remember and contribute the array of arguments during the group discussion (Burnstein & Vinokur, 1977; Madsen, 1978). Another major criticism of PAT is that it limits the role of communication during small group interactions, in that PAT assumes that pre- and post-

discussion preference assessments, independent of communication, impact group decisions. Support for this assumption was provided in Vinokur et al., (1975), who found that cognitive pre-discussion arguments were the same as those contributed during group discussion. However, Meyers (1989) found that individually generated pre-discussion cognitive arguments were not associated with the amount or the content of contributed discussion arguments. In fact, in Meyers' (1989) study 41 out of 45 groups contributed a wider variety (measured by content and topic) and more (in terms of numbers of) arguments than individuals were able to cognitively generate previous to the group discussions. Meyer's (1989) findings place communication at the center of argument and influence processes, indicating that communication plays more than a mediating role in small group processes (Pavitt, 1993; Meyers & Seibold, 1990; Seibold, Meyers, & Sunwolf, 1996). Pavitt (1993) noted another significant limitation of PAT, where the theory fails to account for situations where a majority of group members possess more arguments in favor of one alternative, yet the aggregate arguments possessed by the group as a whole are in favor of a different alternative.

Another consideration is that strictly informational approaches to influence often assume that people are rational decision makers that process and utilize all available informational resources. However, as seen with the normative influence literature, rarely do people ignore relevant others and their opinions while engaging in decision-making

processes. These criticisms suggest that both static and dynamic features of information impact group outcomes. I address this issue in the following section.

Normative and Informational Influence: A Combined Approach

As noted, some scholars (Abrams & Hogg, 1990; Kaplan & Miller, 1987; Myers & Lamm, 1976; Sanders & Baron, 1977; Stasson & Hawkes, 1995) do not view normative and informational influence processes as mutually exclusive. Interestingly, researchers who assume that both normative and informational influences concurrently operate during small group discussions have found that there are some situations where one type of influence will be a more dominant force than the other. In terms of task features, judgmental tasks have been associated with higher instances of normative influence, whereas intellective tasks (i.e., those with a demonstrably correct answer) have been associated with informational influence (Kaplan, 1987; Kaplan & Miller, 1987). Hirokawa (1990) also noted that tasks with unequivocal goals and solution criteria are often associated with both informational influence and the evaluative potential of the individual group members to work through the problem at hand. Tasks with more equivocal features, however, increase the need for communication between group members because "criteria for assessing quality [decisions or preferences] are less obvious and less easily applied" (Hirokawa, 1990, p. 200) thus enabling group members to assert normative pressure to influence others to come to some form of agreement.

Therefore, when groups work on tasks with equivocal features, normative influence will have a more dominant effect on group discussions, and informational influence will tend to play a secondary role during these group discussions. Similar to Hirokawa's (1990) discussion of the equivocal nature of tasks, Laughlin & Ellis (1986) suggested that task demonstrability can impact discussion- and outcome-related group processes. For example, for tasks with limited to no task-demonstrability (i.e., judgmental tasks) the group's ability to select the best decision alternative relies on at least two members' knowledge and abilities (e.g., truth-supported wins) to convince the other group members that a particular alternative is the correct choice (Laughlin & Ellis, 1986). Thus, informational influence should lead to an optimal decision as long as at least two members possess knowledge about, are motivated to share with the group, and can express to the other group members, which choice alternative is best (Laughlin, Kerr, Munch, & Haggarty, 1976). However, for judgmental tasks with low solution-demonstrability where group members have little to no information about the problem, normative influence (e.g., pressure to go along with a majority's preference) will likely dominate the group discussions (Laughlin et al., 1976).

In addition, certain decision rules (e.g., majority vote) have been associated with different types of influence processes (McPhee, Poole, & Seibold, 1981). For example, groups that employ unanimous decision rules during judgmental tasks, when compared to

majority rule, increase the use of normative influence strategies (Kaplan & Miller, 1987). Specifically, those advocating a minority perspective in a situation that requires unanimity have "veto power," which can cause a stalemate, the resolution of which (assuming that a decision must eventually be reached) likely requires the majority to utilize normative influence (Beersma & De Dreu, 2002, p. 31). On the other hand Moscovici, Lage, and Naffrechoux (1969) argued that minorities provoke majority members to rethink their positions and can thus win over majorities with consistent arguments and informational influence. There are, however, times when neither informational nor normative influences are likely to have a distinct impact on group outcomes; Kaplan and Miller (1987) suggested that groups who use majority decision rules for judgmental tasks are not associated with either types of influence once majority agreement has been achieved, as individuals in the minority could simply be ignored and overruled by the majority.

Rather than focusing on task features like the decision rule or demonstrability, some researchers place stronger emphasis on group-related characteristics to account for the relationship between normative and informational influence. For example, Propp (1999) defined collective information processing (CIP) as the sharing of knowledge between group members that, by definition, must happen through interaction and communication. From this perspective, communication is the process by which group

members negotiate and collectively assign weight or importance pieces of information, and in doing so influence the decision-making process. Propp (1999), much like Deutsch and Gerard (1955), suggested that informational influence occurs when "group members accept information from one another and incorporate it into their perceptions of reality" (p. 243). Propp (1999) also argued that normative influence takes place through exposure to others' preferences, which, in part, explains why people shift their expectations and conform to others' preferences.

Other researchers have also attempted to disentangle and characterize the complex relationship between normative and informational influence processes. For example, Stasser (1999) argued that group majorities can simultaneously exert both types of influence, based on the sheer power of numbers. For example, a majority is likely to use informational influence because it has access to more informational resources (i.e., because the majority has more members than do minorities); on the other hand majorities can use normative influence to "exert more social pressure to conform to their view than smaller factions" (Stasser, 1999, p. 5). Abrams and Hogg (1990) offered a slightly different account, where informational influence may play an important role when groups are forming, in that people gather and evaluate all available pieces of information (e.g., informational influence) in order to categorize and form impressions of themselves, others in the group, and one's position within a group (e.g., normative influence). Thus,

normative influences brought on by social categorization processes affect members' attitudes, behavior, and participation within the group once norms and expectations have developed from group-level information processing (Abrams & Hogg, 1990). However, Myers and Lamm (1976) argued that social motivations may influence the elicitation of pre-discussion arguments during group interactions (rather than arguments that emerge from discussions) which could produce an unequal distribution of arguments for or against an item, which in turn may affect how members perceive, interpret, and potentially conform to others' preferences. Aside from this apparent "chicken or the egg" debate, when a group member is similar to a target on a characteristic that becomes a topic of discussion, previous research (Bonito, 2007; Madsen, 1978; Myers & Lamm, 1976; Roese & Olson, 2007) suggests that people will respond in predictable ways in terms of participation, management of social desirability, and argument strategies used during group discussions.

To summarize, informational influence approaches are concerned with the ways in which individuals within groups create and evaluate alternatives during the decision-making process. Normative models of influence focus on inter-member relationships, where social desirability and normative pressures influence both the cognitive and behavioral processes associated with group outcomes. It seems as though these processes are interrelated, and thus researchers interested in influence processes in groups should

recognize the potential for both normative and informational influence processes to impact group outcomes. The following section will address how similarity with a decision outcome can impact both normative and informational influence processes during group discussions.

THE IMPACT OF SIMILARITY ON NORMATIVE AND INFORMATIONAL INFLUENCE PROCESSES IN GROUPS

Before considering group-related processes, similarity with a decision outcome can impact individual group members. If a group member, prior to the group discussion, evaluates a decision outcome, and in doing so perceives a similarity with that outcome on any number of available characteristics, (assuming the characteristic has the potential to be positively judged by the group) that group member is more likely to (a) have positive feelings towards that decision alternative (Chen & Kenrick, 2002; Shaubroeck & Lam, 2002), and (b) adopt that alternative as his or her preference (Wittenbaum et al., 2004). This preference then has the potential to bias subsequent information sampling, where the group member will process available information in a positive way so that it is consistence with his or her preference (Mojzisch, Grouneva, & Schulz-Hardt, 2010). Here, similarity with, and preference for, a decision outcome can differentially influence the pre-discussion evaluations of available alternatives when compared to members who do not perceive themselves as similar to a decision outcome. Moreover, similarity can subsequently impact how a group member contributes to the group discussion, as the group member will likely to advocate for their initial preference (Stasser & Titus, 1985), and do so in order to convince others to adopt that position (Wittenbaum et al., 2004).

Hence, it is during the group discussion that the impact of similarity with a decision outcome may start to manifest at the group level. As noted, prior to the group discussion similarity can affect pre-discussion evaluations of, and preferences for, potential decision outcomes. During the group discussion, assuming that the similarity is based on a characteristic that is important, or at least relevant to the criteria the group is using to evaluate candidates, similarity will have the greatest impact when groups either positively or negatively judge the shared attribute. Returning to the job candidate scenario, the group may evaluate a candidate's characteristic positively, where members who share that characteristic will (a) likely contribute more arguments supportive of the candidate to the group discussion due to a previously established preference (Mojzich et al., 2010; Stasser & Titus, 1985; Wittenbaum et al., 2004), and (b) try to associate with that candidate to take advantage of, and indirectly negotiate and manage, social desirability assessments by other group members (Cialdini & De Nichols, 1987). Here, normative influence (i.e., maintaining desirability with the group) allows group members who are similar to the candidate to make preference-consistent arguments (e.g., use informational influence) to support a candidate, and to use positive evaluations of the candidate made by the group to reinforce his or her own position and desirability to the group.

On the other hand, a shared characteristic might be negatively judged by the group, where similarity could reflect poorly on a member's social standing with members of the group. For those similar to a candidate, responses to negative judgments about a committee member and a candidate's shared characteristic might include (a) avoiding the discussion of the undesirable or negatively judged characteristic, (b) the mentioning of other positive traits to compensate for the undesirable characteristic, (c) putting a positive spin on the negative characteristic, or (c) making direct competitive comparisons (Amiot & Sansfacon, 2011; Branscombe et al., 1999; Tajfel & Turner, 1979, Wittenbaum et al., 2004). All of these strategies are potential repercussions of similarity with a candidate's negatively judged characteristic during small group discussion. Here, normative influence may compel group members who are similar to a candidate to manage this desirability discrepancy in a way that can both appease their own preferences and liking for a candidate based on similarity, while addressing normative pressures to remain desirable to the group (i.e., consistent with group expectations). Thus, informational influence in the form of compensation for a candidate's negative characteristic, or reframing to change the valence of the characteristic in question, allows group members who are similar to a candidate to (a) make arguments that support the candidate they prefer, (b) use their support for the candidate as a mechanism to manage their standing

within the group, while (c) remaining socially desirable to the group by not going against group expectations or preferences.

The current project explores the impact of similarity on influence processes in groups. Here, similarity occurs during an evaluation task when one or more group members share attributes a decision outcome. Like impression- and perception-related processes, similarity manifests itself as informational influence when a group member changes the way he or she responds to criticisms about that candidate or the shared attribute, and affects normative pressures in groups as a member tries to adhere to group-related desires and expectations. As noted by Wittenbaum et al. (2004) group decision-making processes may become additionally complicated when they present a conflict with a personal goal such as hiring a person based on liking, perceived similarities, or shared interest, and therefore "these individual incentives may conflict with the group goal to choose the best candidate… [and] these incentive structures likely influence what information members are willing to communicate" (p. 299). In some cases, the consequence of these personal incentives compels members to present and frame informational contributions in goal-congruent ways in order to convince the group that one's personal preference is the best alternative.

Therefore, based on processes of inference, liking, and preferences for a decision outcome, group members who perceive a similarity with a decision outcome will create,

remember, and likely contribute more arguments about that decision alternative. In accordance with the PAT literature, arguments are generated internally by individuals as they subjectively obtain and process new information, and decision preferences are a result of the identification of the alternative with the most positive, and least negative, qualities (Burnstein & Vinokur, 1977). This reasoning leads to the following hypothesis:

H1: Similarity with a target will be positively associated with the pre-discussion generation of novel pre-discussion arguments.

Previous research (Madsen, 1978) suggested that perceived issue importance (in this case maintaining social desirability with one's group while managing judgments of shared characteristics) affects a group member's ability to generate arguments during group discussions. Literature on social identity theory suggests that when people's social standing within a group is called into question, self-regulation and variability in influence strategies used during discussions decrease (Abrams & Hogg, 1990). And as suggested by Roese and Olson's (2007) work, group members concerned with desirability issues because of negative judgments of a shared candidate characteristic, who also perceive the ability to change others' opinions, are likely to use direct communicative strategies to combat the threat. This reasoning leads to the following hypotheses:

H2: Similarity with a target will be positively associated with perceptions of having contributed more novel arguments during group discussions.

H3: Group members who are similar to a target will be perceived as using more consistent types of arguments during the group discussion than those who are not similar to a target.

H4: Those who are similar to a target will be rated as more influential than those who are not similar to a target.

Here, others' perceptions are used as a way to obtain and combine relatively objective measures of what group members contribute to group discussions (Bonito, 2000; Kenny, 1994). Among other things, this design (see more below) also allows for normative influence to be measured at various levels of analysis.

Communication Competence

Communication competence was used in the current project to operationalize similarity, where a group member's level of communication competence was evaluated in terms of its relation to a target's level of communication competence. Communication competence has been fundamentally linked with attribution and impression formation processes (Pavitt, 1990). Curran (1979) argued that we utilize social skills to seek approval and avoid negative judgments or repercussions from others (i.e., social desirability and affiliation needs). Therefore, it appears that evaluating others' communication competence influences our impressions and perceptions of others. In relation to the current study, assessments of a potential job candidate's communication

competence during an interview can greatly impact judgments and hiring decisions (Ramsay, Gallois, & Callan, 1997).

Spitzberg and Cupach (2002) compiled a list of communication skills associated with competence that includes, but is not limited to empathy, wit, social relaxation, responsiveness, cooperativeness, and clarity. Communication competence is the term often used in reference to the possession of such skills (Spitzberg & Cupach, 2002). As discussed by Spitzberg and Cupach (2002), communication competence (CC) can be thought of in terms of content (e.g., motivation, intent, and knowledge about contextual and relational aspects surrounding an interaction) or procedural components (e.g., the prioritization and evaluation of goals and prediction of others' behaviors). The content aspect of CC has been extended and elaborated by others (see Hazelton & Cupach, 1986) to include four factors: (1) the recognition of the available message strategies for any given communication context, (2) identification of expectations, norms, situational demands and constraints, and appropriateness within the communication interaction, (3) anticipated consequences or reactions to potential messages, (4) the actual process of creating meaningful messages. Consequently, the structure of content knowledge and the process by which this knowledge interacts with perceptions of communicative behavior leads to actual perceptions of competent behavior (Pavitt, 1989). Additionally, much like the assumptions behind normative and informational influence, assessments of others'

and displays of our own communicative competence become salient when interacting with others.

As an extension to the CC literature, Pavitt and Haight's (1986a, 1986b; Pavitt, 1990) line of work substantiated the claim that people often use a hypothetical ideal competent communicator to evaluate others, and that self-reported evaluations of one's own communication competence was highly correlated with competence evaluations of others. Buhrmester, Furman, Wittenberg, and Reis (1988) have successfully replicated these findings. Implicit theories suggest that because most traits are not directly observable, we look to behaviors (e.g., communication skills) to make judgments of others (Pavitt & Haight, 1986b). This complements the social comparison literature because people use observations of others to anchor and gauge their behavioral appropriateness (Festinger, 1954).

In a study of perceptions and communication competence, Hazelton and Cupach (1986) found that those higher in self-reported CC were able to generate a larger variety of explanations of others' behaviors than those with lower communication competence; however, larger variety does not necessarily equate to more arguments, descriptions, or attributions about others' behavior. In fact, data from the same study also suggested that the number of descriptive and informational contributions made by people in general were statistically unrelated to communication competence (Hazelton & Cupach, 1986).

This finding is rather unsurprising, as the assessment of communicative competence is treated as an interactional, rather than a cognitive process. Another explanation might be issue importance and availability of novel arguments, as posed by Madsen (1978) and Burnstein and Vinokur (1977). In order to rule out communication competence, rather than similarity, as the source of argument generation and influence attempts in groups, the following research questions were proposed:

RQ1: Will self-reported levels of communication competence be associated with the number of pre-discussion arguments made about a target?

RQ1a: Are self-reported levels of communication competence associated with the number of novel pre-discussion arguments made about a target?

As mentioned, researchers typically treat CC as a behavioral and social phenomenon (for ease of measurement among other things) that represents cognitive mechanisms. Hazelton and Cupach's (1986) found that, outside of a specific interactional context, differences in individuals' ability to generate ideas, judgments, and explanations about others' CC skills appear to be unrelated to one's own level of CC. On the other hand, other research (Madsen,1978; Roese & Olson, 2007; Wittenbaum et al., 2004) suggested that issue importance, ego involvement, and social desirability will be related to arguments and contributions to small group discussions. Therefore, additional research questions were proposed:

RQ2: Is the number of pre-discussion arguments more strongly associated with a person's self-reported levels of communication competence, or similarity with a target?

RQ2a: Is the number of novel pre-discussion arguments more strongly associated with a person's self-reported levels of communication competence, or similarity with a target?

RQ2b: Are perceptions of contributed arguments more strongly related to self-reported levels of communication competence, or similarity with a target?

In conclusion, this research endeavors to further our understanding about the intersection of communicative competence, normative and informational influence, argument strategies, and perceived persuasiveness at the individual and group level during discussion.

OVERVIEW OF INVESTIGATION

Two studies make up the present investigation of the relationship between similarity with a candidate and influence processes in groups. Study 1 was a pilot test of the attribution task (see Appendix A). Study 1 was also used to validate Spitzberg and Hurt's (1989) Communication Competence (CC) scale (see Appendix B) and Pavitt's (1990) Revised Version of the Communicative Competence (RVCC) scale (see Appendix C). The three versions of the attribution task were tested in order to use as the stimuli for Study 2, in which groups read about, and then evaluated a person who was described as having high, ambiguous, or low levels of communicative competence.

STUDY 1: THE PILOT TEST

Purpose and Rationale

The purpose of Study 1 was to evaluate the reliability and validity of the attribution task and an adapted version of Spitzberg and Hurt's (1989) Communicative Competence (see Appendix B) scale. Study 1 also evaluated Pavitt's (1990) RVCC scale in order to establish reliability estimates for splitting the scale for use as both a pretest and posttest in Study 2.

Method

Participants. The participants in this study consisted of 69 undergraduates from a large Southwestern university. Participants were recruited from undergraduate classes within the Department of Communication and offered extra credit in the course, with the amount of credit determined by the instructor. Additional information was collected in order to ensure that participants who volunteered for Study 1 were not eligible to participate in Study 2.

Materials. One set of materials asked participants to read one of three descriptions about Jim (the attribution task, see Appendix A). The attribution task was adapted from Bonito's (2000) study of the relationship between task-based knowledge and participation. Specifically, Bonito's (2000) task was altered so that eight items described a fictitious person's high communication competence-related behaviors based

on characteristics described in Pavitt's (1990) RVCC scale, and Spitzberg and Cupach's (2002) list of competence related characteristics; two additional pieces of personal information were also provided about the fictitious person (Jim). Once the eight high communication competence items were compiled, those eight items were then reworded to create three different versions of Jim (each included the same two personal information items): one described Jim as high, the second as ambiguous, and the third as low in communication competence. An adapted version of Spitzberg and Hurt's (1987) Communication Competence (CC) scale was used to evaluate participants' perceptions of Jim (see Appendix B). The original CC scale included eight semantic differential items; the adapted version included an additional item with anchors "Competent" and "Incompetent". All anchors ranged from 1 to 7, with 4 indicating neutrality. Finally, Pavitt's (1990) RVCC scale was used for participants to rate their own communication competence. The original version of the RVCC had two dimensions; the first dimension was judgments of communicator competence, which was measured in thirty 7-point Likert scale items, and the second dimension was evaluations of communicator competence, which was measured with 6 additional 7-point Likert scale items, with anchors ranging from 1 as "Extremely unlike me," and 7 as "Extremely like me." The two original dimensions were initially collapsed because the distinction between these two categories did not appear to be relevant to the current study (Pavitt, 1990). However,

some analyses from Study 2 utilized and analyzed the two dimensions separately (see more below).

Procedure. Participants were recruited during their normally scheduled undergraduate classes, and were provided a link that directed them to the online survey. Once the participant clicked on the link, they were asked to provide consent, their name, their school-issued student identification number, and the name of the instructor (all for the rewarding of extra credit for their participation in the study, and to ensure that those who participated in Study 1 did not participate in Study 2). Once that information was obtained, participants read the high, ambiguous, or low communication competence description of Jim. After reading Jim's characteristics, participants used the CC instrument to evaluate Jim. Participants then responded to the full version of the Pavitt's (1990) RVCC scale to assess their own levels of communicative competence. The two different communication competence scales (i.e., the CC scale for the evaluation of Jim, the RVCC scale for self-reported communication competence) were used to avoid testing effects from exposure to the same scale on repeated occasions. Upon completing the instruments, participants were thanked for their participation and provided contact information for questions or further information regarding the study.

Analysis and Results

The data collected for the pilot study (N = 69) indicated that the instruments worked as intended. Reliability for the CC scale was excellent, M = 4.20, SD = 0.12, α = .91 (DeVellis, 1991). Once reliability was established, the CC scale was used to demonstrate the validity of the Jim attribution task conditions (high, ambiguous, and low communication competence). Results from a one-way ANOVA indicated that participants from the three conditions differed in their assessments of Jim's communication competence, F (2, 66) = 22.64, $p < .001$, $\eta^2 = .41$. A post hoc LSD comparison indicated that the means for each condition significantly differed from one another. Participants assigned to the high competence Jim description rated Jim the highest in communication competence (M = 5.16, SD = 1.40), followed by the ambiguous Jim description (M = 4.11, SD = 0.67), and low (M = 3.17, SD = 0.64). Due to a significant Levene's Test, Welch and Brown-Forsythe tests were both conducted, and both were significant ($p < .01$).

The full version of Pavitt's (1990) RVCC scale also displayed excellent reliability, M = 5.45, SD = 0.53, α = .92 (DeVellis, 1991). Due to the length of the scale, two subscales (RVCC1 and RVCC2) were created from the full (1990) RVCC scale for

use during Study 2, in order to capture participant's self-reported levels of communication pre- and post-discussion. The RVCC1 was created by combining the first half of the items for the judgments of communicator characteristics dimension with the first half of the items for the evaluations of communicator competence dimension; the RVCC2 contained the second half of the items from both dimensions (see Appendix D). As mentioned, unless otherwise noted the original two scale dimensions (i.e., judgments and evaluations) were not separated within each RVCC subscale. Reliability for the RVCC1 subscale (M = 5.41, SD = 0.50, α = .79) and for the RVCC2 subscale (M = 5.49, SD = 0.61, α = .88) both separately reached acceptable thresholds for internal consistency (DeVellis, 1991). Furthermore, results from a paired-samples t-test showed that responses to RVCC1 were not significantly different than responses from RVCC2, t (68) = -1.91, p = .06, which indicated that participants were responding similarly to both subscales. A Pearson's product moment correlation also indicated that scores from RVCC1 and RVCC2 were positively and significantly correlated, r (67) = .84, p < .01.

Discussion

The findings from Study 1 indicated that participants responded to the three versions of the attribution task as expected. The CC scale was also reliable, and allowed participants to accurately rate the different versions of Jim as intended (e.g., high, ambiguous, and low in communication competence). In addition, Pavitt's (1990) RVCC

scale reliably measured self-reported levels of communicative competence. Results also indicated that the RVCC could be divided into the RVCC1 and RVCC2 for use during Study 2 as a way to create pre- and post-discussion measures of communication competence. Therefore, overall results from Study 1 provided validity and reliability for the three conditions of the attribution task, as well as reliability for the RVCC subscales for use during Study 2.

STUDY 2

Purpose and Rationale

In Study 2 participants worked in either 3- or 4-person groups, and were asked to discuss and come to a consensus regarding the character of a fictitious person named Jim (see above). Prior to discussion, participants rated themselves and Jim on separate measures of communication competence. Following discussion, participants again rated their own communication competence, and then responded to post-discussion measures that rated each group members' influence attempts and contributions to the group discussion.

Method

Participants. Participants (N = 107) from a large Southwestern university took part in Study 2, which resulted in twenty-three 4-person groups and five 3-person groups. Other studies (see Bonito, 2000; Meyers, Brashers, & Hanner, 2000; Mojzisch, et al., 2008; Stasser & Titus, 1985) have shown reasonable power to detect effects of medium size with as few as ten 4-person groups participating in a single condition. Participants were recruited from undergraduate classes within the Department of Communication and offered extra credit in the course, which was at the instructors' discretion. University-issued student ID numbers for all of the participants from Study 2 were cross-referenced

with participants from Study 1 to ensure that participants who volunteered for Study 2 did not also participate in Study 1.

Materials. Participants were asked to asked to report self-perceptions of communication competence with RVCC1 (see Appendix D), and also responded to the short form of the Marlowe-Crowne Social Desirability (MCSD) scale (see Appendix E) prior to attending a lab session. During the lab session but prior to the group discussion, groups were given one of the three versions of the attribution task (see Study 1), and were then asked to fill out the CC scale (see Appendix C) to evaluate Jim. Participants were also asked to respond to three open-ended questions (e.g., what kind of a person is Jim? Would you be friends with him? Would you recommend Jim for a sales/customer service position?). After discussion, participants responded to RVCC2 and to items from an adapted version of Bonito's (2000) Discussion Influence (DI) scale (see Appendix F). Anchors for the 12 Likert-scale items of the DI scale were 1 as "Extremely unlike this group member" to 7 as "Extremely like this group member."

Procedure. Participants were recruited during students' regularly scheduled classes. They were given an online link that brought them to a consent page. Upon providing consent, participants filled out the RVCC1 and MCSD scales, and then were directed to a page that asked them to provide a valid email address and to choose a lab time for the discussion portion of the study. Participants were reminded via email of their

scheduled discussion times both 48 and 24 hours in advance. Participants were assigned to groups based on the timeslot they chose, where up to five participants could sign up for timeslots within each lab session. Thus, each lab session involved one group of participants, with the group size ranging from 3- to 4-person groups. The condition (e.g., Jim from the attribution task as having high, ambiguous, or low communication competence) was assigned to the groups before the session began. Conditions were run consecutively until a sufficient number of groups (originally intended to be ten groups per condition, but based on participants' availability and time constraints this was later lowered to eight groups) had participated in each condition. This resulted in seven 4-person and three 3-person groups in the high communication competence condition, eight 4-person groups in the ambiguous Jim condition, and eight 4-person and two 3-person groups in the low communication competence condition.

Upon arrival to the laboratory participants were seated at a computer terminal. Once seated, all participants individually completed the same version of the attribution tasks (i.e., each group was assigned to one condition, where each group member responded to the same version of the Jim task). Participants were instructed to read about Jim and rate his communication competence using the CC scale. Following that, participants were also provided open text boxes and asked to write out arguments that support their assessment of (1) what kind of a person Jim is, (2) whether the participant

would be friends with Jim, and (3) whether the participant would recommend Jim for a sales or customer service position, based on the information that was provided to them. Participants were then led into another section of the laboratory and asked to introduce themselves to each other. The participants were seated around a circular table, at which point the experimenter explained that the cameras in the middle of the table (one pointing at each of the participants) would be used to videotape their discussion. Verbal consent to record the discussions was provided by all participants before the recording was started. After providing consent, the participants were notified that they were given the same information about Jim, and that their objective as a group was to take up to 15 minutes to discuss and come to consensus on the same three issues about which participants provided arguments for prior to discussion: (1) what kind of a person Jim is, (2) whether they would be friends with Jim, and (3) whether they would recommend Jim for a sales/customer service position. The researcher then started recording, instructed the participants to start their discussion, and stayed in another section of the lab until either the 15 minutes expired, or the participants notified the experimenter that consensus on all three items was reached. Upon completion of the group discussion, the recording was stopped, and the participants were led back to the same computer terminal they used before the group discussion. Post-discussion, participants responded to (in order) the CC scale to rate Jim again, the RVCC2 in order to self-report their own levels of

communication competence, and the items adapted from Bonito's (2000) DI scale in a round-robin fashion (Kenny, 1994). Upon completion, participants were thanked for their participation, encouraged to ask questions, and then dismissed.

Variables

Independent variables. For the purpose of this study the independent variables were pre-discussion self-reported levels of communication competence, and competence correspondence.

Pre-discussion self-perceived communicative competence. This predictor variable was computed by taking the mean of a participant's responses to the RVCC1 scale.

Competence Correspondence. This independent variable was assessed in three ways. First, it was computed as the difference score between each person's mean RVCC1 score and the mean pre-discussion ratings of Jim's communication competence from the CC scale. Labeled as competence correspondence, positive scores indicated that a person rated him- or herself as higher in communication competence than Jim, and negative scores indicated that a person rated him- or herself as lower in communication competence than Jim. A score of zero indicated that a participant perceived that he or she has the same level of communicative competence as Jim. Reliability for the RVCC1 subscale ($M = 5.58$, $SD = 0.62$, $\alpha = .87$) reached acceptable thresholds for internal

consistency (DeVellis, 1991). Reliability for the CC scale was also acceptable, $M = 4.01$, $SD = 1.53$, $\alpha = .93$ (DeVellis, 1991). Overall, participants saw themselves as much more communicatively competent compared to Jim.

As mentioned, some of the analyses required the use of Pavitt's (1990) original two dimensions (judgments of communicator's characteristics and evaluation of communication competence). Reliability for the two dimensions of the RVCC1 was acceptable, with $\alpha = .83$ ($M = 5.49$, $SD = 0.64$,) and $\alpha = .84$ ($M = 6.03$, $SD = 0.76$,) for the 15-item judgment of competence dimension and the 3-item evaluation of competence dimension, respectively (DeVellis, 1991). The 15 items of the judgment of competence dimension for the RVCC2 judgment of competence subscale was reliable ($M = 5.75$, $SD = 0.70$, $\alpha = .88$), but the 3 items of the evaluation of competence dimension ($M = 5.60$, $SD = 0.81$, $\alpha = .55$) was lower than typical acceptable levels of reliability (DeVellis, 1991).

The second way communication correspondence was computed was by taking the absolute value of competence correspondence scores (i.e., the difference score described above). Here, absolute competence correspondence ($M = 1.90$, $SD = 1.25$) accounted for the size of the difference between a person's mean self-reported communication competence and Jim's communication competence, but does not indicate the valence of the difference in scores (i.e., rating oneself higher or lower than Jim).

The third and final way communication competence was computed was by using *z*-scores to standardize the means of participants' self-reported levels of communication competence and Jim's communication competence. Thus, standardized competence correspondence ($M = 0.00$, $SD = 1.40$) allowed for the measurement of similarity with scores on comparable scales, while still capturing the valence of the difference of a participant's communication competence (e.g., higher or lower) relative to Jim's communication competence.

Dependent Variables. There were two sets of dependent variables. The first was the number of arguments generated prior to discussion. The second was perceptions of participation taken after discussion. Each set is discussed below.

Number of pre-discussion arguments. This dependent variable was computed using responses to the open-ended items prior to the group discussion. Each piece of evidence or support provided by participants (ranging from a single word, as in "friendly" to a full sentence) was treated as an argument. The author and another coder, a graduate student in the Department of Communication, had two training sessions and practiced segmenting responses in order to establish reliability. The instructions were to identify any word, phrase, or sentence that, on its own, could be used as an argument to support answers to the open-ended questions. Coders settled disagreements through discussion. In a third session, both coders blindly segment 30 randomly chosen answers provided by

participants. This was 9.35% of the total (N = 321) number of responses. Reliability between the coders for the third session was acceptable, Guetzkow's (1950) U = 0.003, where zero indicates 100% accuracy in coding, and U < .10 indicates acceptable reliability. Once this reliability was achieved, the author segmented the remainder of the data.

Number of novel pre-discussion arguments. The number of novel pre-discussion arguments was computed by using the three open-ended questions that participants filled out prior to discussion. After the arguments were segmented (see above), the arguments were then categorized as either shared, meaning other group members made the same argument, or novel, where no other member had provided the same argument. The same coder as used in the segmenting of the number of pre-discussion arguments was used for this process. The coder and the author used a codebook (see Appendix G) to assign a label (i.e., a category) for each argument. Two training sessions allowed the author and coder to agree on the number and descriptions of each category, where disagreements were settled through discussion. In a third session, both coders blindly categorized 24 sets of randomly chosen answers provided by participants. This accounted for 63 out of 864 total arguments, or 7.29% of the total number of arguments. Each participant was analyzed in terms of his or her group, where the number of novel and shared arguments a participant provided was based on the arguments provided by the other group members.

The total number of novel and shared arguments categorized by the coder and author were highly correlated, r (22) = .98, p < .01. The author categorized the remaining arguments based on the agreed upon codes.

Post-discussion perceptions of the interaction. The data from the 12 post-discussion questions adapted from Bonito's (2001) DI scale were processed using Kenny's Soremo program, which identifies social relations effects at several levels of analysis. Variables with variances significantly different from zero may be used in subsequent analyses. As the specific interest here is in the partner effects (i.e., how a given participant is perceived by the other members in the group), only those estimates are reported here (see Table 1). As is evident in Table 1, the only significant partner effects were perceptions of contributed novel arguments (M = 0.13, SD = 0.30), perceived influence (M = -0.10, SD = 0.30), and perceptions of argument quality (M = 0.18, SD = 0.30). The partner estimates from these three variables are used in the analysis that follows.

RESULTS

Descriptive Statistics

All tests of significance were two-tailed, with alpha set at .05. Preliminary analysis (see Table 2) indicated that participants self-reported high levels of communication competence (M = 5.58, SD = 0.62), and these ratings were, on average, much higher than pre-discussion ratings of Jim's communication competence (M = 4.01, SD = 1.52). Post-discussion mean levels of self-reported communication competence (M = 5.73, SD = 0.69) were also relatively high, and the increase in mean self-reported levels of communication competence from pre- to post-discussion was statistically significant, t (106) = -2.46, p = .02. On the other hand, post-discussion ratings of Jim's communication competence (M = 4.01, SD = 1.86) were almost identical to the pre-discussion ratings of Jim, t (106) = .03, p = .98.

When the RVCC1 was divided into two dimensions, results indicated that pre-discussion judgments (M = 5.49, SD = 0.64) and evaluations of competence (M = 6.03, SD = 0.76) were both higher than pre-discussion mean ratings of Jim's communication competence (see Table 3). Furthermore, the change in means from pre- to post-discussion on both dimensions of communication competence was statistically

significant. Post-discussion, the judgment dimension (M = 5.75, SD = 0.70) was significantly higher, t (106) = -4.21, p < .01, r = .54, when compared to pre-discussion judgments. On the other hand, the post-discussion evaluation dimension (M = 5.60, SD = 0.81) was significantly lower than the pre-discussion ratings, t (106) = 5.35, p < .01, r = .43. Therefore, when comparing pre- to post-discussion ratings on these two dimensions, participants rated themselves higher in judgments of communicator characteristics, but lower in actual competence.

A number of the variables were highly and significantly correlated (see Table 4). For example, the generation of novel arguments was significantly and positively associated with pre- and post-discussion ratings of Jim, where participants who generated more novel pre-discussion arguments tended to rate Jim higher in communication competence both pre-discussion, r (105) = .19, p = .05, and post-discussion, r (105) = .22, p = .02. Pre-discussion ratings of Jim were significantly correlated with post-discussion ratings of Jim's communication competence, r (105) = .89, p < .01, so that the higher people rated Jim prior to discussion, the higher they tended to rate Jim post discussion. And finally, competence correspondence was highly positively and significantly correlated with both post-discussion self-reported CC, and post-discussion ratings of Jim's CC.

The CC scale was used as a manipulation check for the experimental conditions (i.e., Jim as high, ambiguous, and low communication competence). Results from a one-way ANOVA indicated that participants from the three conditions differed in their assessments of Jim's communicative competence, F (2, 104) = 57.97, $p < .01$, $\eta^2 = .53$. A post hoc LSD comparison indicated that the high communication competence Jim condition (M = 5.38, SD = 1.19) was significantly different from the ambiguous Jim condition (M = 3.41, SD = 1.19), $p < .01$, but the difference between the ambiguous Jim condition and the low communication competence Jim condition (M = 2.92, SD = .69) only approached significance, $p = .06$. Interpretation of the means indicated that ratings were trending in the expected direction so that participants in the high communication competence condition rated Jim as the highest, followed by ratings from the ambiguous communication competence condition, with participants in the low communication competence condition rating Jim the lowest. However, participants' mean ratings of Jim in the ambiguous condition were not statistically different from participants' mean ratings of Jim in the low communication competence condition. Furthermore, due to a significant Levene's Test, Welch and Brown-Forsythe tests were both conducted, and both were significant ($p < .01$).

Hypothesis 1

The first hypothesis predicted that similarity would be positively associated with the generation of novel pre-discussion arguments. To test this hypothesis, a Pearson's product-moment correlation was used, indicating no relationship between competence correspondence and novel arguments, r (105) = -.13, p = .19. To account for the nature of the difference scores, where positive numbers indicated that a person's self-perceived communication competence was higher than Jim and negative numbers indicated that a person's self-perceived communication competence was lower than Jim, cases were then separated by the valence of the difference scores and additional correlations were calculated. Results indicated no relationship between those who saw themselves as lower in communication competence than Jim and the generation of pre-discussion novel arguments, r (20) = .12, p = .63. Additionally, there was no relationship between those who saw themselves as higher in communication competence than Jim and the generation of novel pre-discussion arguments, r (83) = -.05, p = .65. When difference scores were replaced with a person's average self-reported CC, results indicated no relationship between a self-reported levels of CC and novel arguments, r (105) = .13, p = .17.

When the RVCC1 was separated into two dimensions, results indicated no relationship between the judgments of communicator characteristics dimension and novel arguments, r (105) = .10, p = .29. On the other hand, a Pearson's product-moment

correlation indicated that there was a significant positive relationship between the evaluations of competence dimension and novel arguments, r (105) = .22, p = .02. To further investigate this relationship, cases were again separated into those who judged themselves higher and those who judged themselves lower in competence than Jim. For those lower in communication competence than Jim, neither the correlation for judgments of communicator's characteristics dimension and novel arguments, r (20) = .33, p = .14, or the correlation for the evaluations of competence dimension and novel arguments, r (20) = .23, p = .30, reached statistical significance. Similarly, for those who rated themselves as higher in communication competence than Jim, the judgments of competence dimension and novel arguments were also not significantly related, r (83) = .10, p = .36. However, the evaluations of competence dimension and novel arguments were significantly and positively associated, r (83) = .23, p = .04. Here, those who rated themselves higher than Jim in communication competence, and also rated themselves high on evaluation of competence, created more novel pre-discussion arguments than those who did not rate themselves high on evaluation of competence (see Table 5).

Hypothesis 1 was also tested using absolute competence correspondence. As noted, absolute competence correspondence focused on the mean difference between a participant's and Jim's levels of communication competence, rather than whether or not people rated themselves as higher or lower in competence. A Pearson's product-moment

correlation was used, also indicating no relationship between absolute competence correspondence and novel arguments, r (105) = -.11, p = .25.

This hypothesis was additionally tested using standardized competence correspondence. A Pearson's product-moment correlation also indicated no relationship between standardized competence correspondence and novel arguments, r (105) = -.04, p = .66. As with competence correspondence, to account for the nature of the difference scores, cases were then separated by the valence of the difference scores and additional correlations were calculated. Results indicated no relationship between those who saw themselves as lower in communication competence than Jim and the generation of pre-discussion novel arguments, r (51) = .09, p = .55. Additionally, there was no relationship between those who saw themselves as higher in communication competence than Jim and the generation of novel pre-discussion arguments, r (52) = .19, p = .18. Based on this evidence, H1 was not supported.

Hypothesis 2

The second hypothesis predicted that similarity with a target (Jim) will be positively associated with perceptions of having contributed more novel arguments during group discussion. SAS Proc mixed was used for the analysis with the Satterthwaite approximate for the degrees of freedom. It is common in multilevel analysis to first estimate the "unconditional" model, one without predictors, to get a sense

of the group-level variance. Here, the group-level estimate, 1.34, $z = 3.48$, $p < .01$ was rather large compared to the residual, 0.28, $z = 6.28$, $p < .01$. The intraclass correlation was .83, indicating that 83% of the variance was due to the group. Competence correspondence as a difference score, and the square of competence correspondence were used as predictors to test this hypothesis. The square of competence correspondence was used because of the potential for a curvilinear effect. Competence correspondence includes negative values, indicating that the participant's communication competence score was lower than Jim's, and it is possible the effect for those with negative values differs from those with positive values. Results indicated that both the group variance, $z = 3.47$, $p < .01$, and the residual $z = 6.21$, $p < .01$ were significant. The significant group effect indicates that responses within groups were relatively homogeneous but were heterogeneous between groups. The linear effect for competence correspondence approached significance, $b = -0.06$, t (79) = 1.85, $p = .07$, and the curvilinear effect was significant, $b = -0.06$, t (79) = -2.28, $p = .03$. Interpretation of the curvilinear effect (see Figure 1) indicates that participants with self-reported levels of communication competence similar to Jim (i.e., high in competence correspondence) were perceived as having contributed more novel arguments to the group discussion than those dissimilar to Jim (e.g., low competence correspondence).

Hypothesis 3

Hypothesis 3 predicted that those who are similar to a target use more consistent types of arguments during small group discussions. As mentioned (see Table 1) there was not sufficient variance in the partner effects within and between groups to analyze this item (Kenny, 1994).

Hypothesis 4

Hypothesis 4 predicted that those who are similar to a target are rated as more influential than those who are dissimilar. Originally this hypothesis was to be tested with item 12 from Bonito's (2000) DI scale, but the variable was not usable in the current analysis because the partner effect was not significantly different from zero, meaning that group members did not vary (within groups) on their ratings of other group members on item 12. Instead, item 11 was used, which measured perceived agreement with others. The unconditional version of the multilevel model again indicated that a majority of the variance, 0.48, $z = 3.41$, $p < .01$ was due to groups, and the remainder, 0.14, $z = 6.29$, $p < .01$, to individuals (i.e., the residual); the intraclass correlation was .77. As with Hypothesis 2, the test here included both the linear and curvilinear effect for competence correspondence. The hypothesis was not supported, as neither the linear effect, $b = -0.11$, t (78) = .68, $p = .50$, or the curvilinear effect, $b = -0.03$, t (78) = -1.48, $p = .14$, were significant.

Research Question 1

RQ1 asked if self-perceived levels of CC were associated with the number of pre-discussion arguments made about a target. Regression was used to answer this question, where pre-discussion self-reported levels of CC was treated as a predictor of the total number of pre-discussion arguments made about Jim. Results indicated that self-reports of communication competence do not predict the number of pre-discussion arguments a person generates, $R = .05$, $F\ (1, 105) = .001$, $p = .98$. When the RVCC1 was separated into two dimensions, results indicated that the judgments of communicator characteristics dimension approached significance as a predictor of the total number of pre-discussion arguments made about Jim ($\beta = -.22$, $p = .08$), while the evaluations of competence dimension was a significant predictor or total number of arguments produced ($\beta = .29$, $p = .03$), and yet the model as a whole did not predict total number of arguments significantly better than chance, $R = .22$, $F\ (2, 104) = 2.60$, $p = .08$.

RQ1a asked if self-perceived levels of CC were associated with the number of novel pre-discussion arguments made about a target. Regression was used to answer this question, where pre-discussion self-reported levels of CC was treated as a predictor of the number of novel pre-discussion arguments made about Jim. Results indicated that communication competence is not associated with the number of novel arguments generated prior to discussion, $R = .13$, $R^2_{adjusted} = .01$, $F\ (1, 105) = 1.90$, $p = .17$.

However, when the RVCC1 was separated into two dimensions, results indicated that the two dimensions of self-reported communication competence approached significance in the ability to predict the number of pre-discussion novel arguments, $R = .23$, $R^2_{adjusted} = .03$, $F\ (2, 104) = 2.85$, $p = .06$. Additional analysis indicated that there was no association between participants who rated themselves higher in the judgments of communicator's characteristic dimension and the generation of pre-discussion novel arguments, $\beta = -.08$, $t = -.61$, $p = .55$. On the other hand, the evaluations of competence dimension was a significant predictor, $\beta = .27$, $t = 2.12$, $p = .04$, $rs^2 = .04$, indicating that the higher a participant scored themselves on the evaluating CC dimension, the more novel pre-discussion arguments that person created.

Research Question 2

RQ2 asked if the number of pre-discussion arguments was more strongly associated with a person's self-reported levels of CC, or perceived similarity with a target (e.g., competence correspondence). Utilizing regression, pre-discussion self-reported levels of CC, and competence correspondence as both a difference score and a squared difference score, were entered as predictors. The model as a whole was not significant, $R = .10$, $F\ (3, 103) = .36$, $p = .78$, so that a person's self-reported levels of CC ($\beta = .03$, $t = .27$, $p = .79$), competence correspondence ($\beta = -.19$, $t = -.96$, $p = .34$), and squared competence correspondence ($\beta = .11$, $t = .59$, $p = .56$) were no better than chance in

predicting how many arguments a person generated about a candidate prior to the group discussion. In separating the RVCC1 out by the two dimensions, the model as a whole was still not significant, $R = .22$, $R^2_{adjusted} = .01$, $F\ (4, 102) = 1.38$, $p = .25$, where competence correspondence ($\beta = -.12$, $t = -.62$, $p = .54$), squared competence correspondence ($\beta = .16$, $t = .56$, $p = .58$), and the judgments of communicator's competence dimension ($\beta = -.21$, $t = -.1.48$, $p = .14$) were no better than chance at predicting how many arguments a person generated about a candidate prior to the group discussion. However, as with other analyses, the evaluations of competence dimension was a significant predictor ($\beta = .28$, $t = 2.12$, $p = .04$), where the higher participants rated themselves on evaluation of competence, the more arguments they generated about a candidate prior to the group discussion.

RQ2 was also assessed in terms of the strength of relationships between the generation of pre-discussion arguments, a participant's self-reported levels of communication competence, and the various measurements of competence correspondence. To test whether the correlations were significantly different from one another, Fisher's *r* to *z* transformation was utilized (Cohen & Cohen, 1983; Preacher, 2002). The relationship between the generation of pre-discussion arguments and self-reported levels of communication competence, $r\ (105) = .002$, $p = .25$, and the relationship between the generation of pre-discussion arguments and competence

correspondence, r (105) = -.08, p = .43, were not significant. Furthermore, the difference between the two correlations was not statistically significant (z = -.054, p = .59).

The relationship between the generation of pre-discussion arguments and absolute competence correspondence was also not significant, r (105) = -.05, p = .59. Utilizing Fisher's r to z transformation (Cohen & Cohen, 1983; Preacher, 2002) the difference of the relationships between the generation of pre-discussion arguments and self-reported levels of communication competence, and the generation of pre-discussion arguments and absolute competence correspondence was also not significant (z = -.037, p = .71).

The relationship between the generation of pre-discussion arguments and standardized competence correspondence was not significant, r (105) = -.06, p = .56. Utilizing Fisher's r to z transformation (Cohen & Cohen, 1983; Preacher, 2002) the difference of the strength of the relationships between the generation of pre-discussion arguments and self-reported levels of communication competence, and the generation of pre-discussion arguments and standardized competence correspondence was also not significant (z = -.40, p = .69).

RQ2a asked if the number of novel pre-discussion arguments was more strongly related to a person's self-reported levels of CC, or with perceived similarity with a target (e.g., competence correspondence). Utilizing regression, pre-discussion self-reported levels of CC, and competence correspondence as both a difference score and a squared

difference score, were entered as predictors. The predictors were not associated with a person's ability to generate novel pre-discussion arguments, $R = .25$, $R^2_{adjusted} = .03$, F (3, 103) = 2.25, $p = .09$. In this case competence correspondence ($\beta = -.35$, $t = -1.84$, $p = .07$), the square of communication correspondence ($\beta = .17$, $t = .90$, $p = .37$), and self-reported levels of communication competence ($\beta = .20$, $t = 1.92$, $p = .06$) were not significant predictors. In separating the RVCC1 out by the two dimensions, the model as a whole was also not significant, $R = .28$, $R^2_{adjusted} = .05$, F (4, 102) = 2.24, $p = .07$, where competence correspondence ($\beta = -.30$, $t = -1.59$, $p = .12$), squared competence correspondence ($\beta = .16$, $t = .87$ $p = .37$), self-reported judgments of communicator's competence ($\beta = .01$, $t = .06$, $p = .95$), and evaluations of competence ($\beta = .23$, $t = 1.74$, $p = .09$) were no better than chance at predicting how many novel arguments a person generated about a candidate prior to the group discussion.

RQ2a was also assessed in terms of the strength of relationships between the generation of novel pre-discussion arguments, a participant's self-reported levels of communication competence, and the various measurements of competence correspondence. The relationship between the generation of novel pre-discussion arguments and self-reported levels of communication competence, r (105) = .13, $p = .17$, and the relationship between the generation of novel pre-discussion arguments and competence correspondence, r (105) = -.13, $p = .19$, were not significant. Results from a

Fisher's *r* to *z* transformation (Cohen & Cohen, 1983; Preacher, 2002) indicated that there was almost no difference in the strength of relationships between the generation of novel pre-discussion arguments and self-reported communication competence, and the generation of novel pre-discussion arguments and competence correspondence ($z = 0.03$, $p = .98$).

The relationship between the generation of novel pre-discussion arguments and absolute competence correspondence was also not significant, $r\ (105) = -.11$, $p = .25$, and results from a Fisher's *r* to *z* transformation (Cohen & Cohen, 1983; Preacher, 2002) indicated that there was also no difference in the strength of the relationships between the generation of novel pre-discussion arguments and self-reported levels of communication competence, and the generation of novel pre-discussion arguments and absolute competence correspondence ($z = 0.15$, $p = .88$).

The relationship between the generation of novel pre-discussion arguments and standardized competence correspondence was also not significant, $r\ (105) = -.04$, $p = .66$, and results from a Fisher's *r* to *z* transformation (Cohen & Cohen, 1983; Preacher, 2002) indicated that the difference of the relationships between the generation of pre-discussion arguments and self-reported levels of communication competence, and the generation of pre-discussion arguments and standardized competence correspondence was also not significant ($z = .68$, $p = .50$).

RQ2b asked if perceptions of contributed arguments are more strongly related to self-reported levels of communication competence, or perceived similarity with a target. SAS Proc Mixed was used to evaluate this research question because responses are likely nonindependent. Participants were nested within groups, and the Satterthwaite approximate for the degrees of freedom for this analyses. The unconditional model indicated that the group-level variance estimate, 1.34, $z = 3.48$, $p < .01$, and the residual, 0.28, $z = 6.28$, $p < .01$, were statistically significant. The interclass correlation was .83, indicating that 83% of the variance in the dependent variable was due to the group. The significant group effect indicates that responses within groups were relatively homogeneous but were heterogeneous between groups. Absolute competence correspondence and standardized competence correspondence were then entered as predictors. Results indicated that both the group variance, $z = 3.46$, $p < .01$, and the residual, $z = 6.20$, $p < .01$ remained significant. The linear effect for absolute competence correspondence was not significant, $b = -0.03$, t (79) = -0.38, $p = .70$. The linear effect for standardized competence correspondence was also not significant, $b = -0.02$, t (79) = -0.25, $p = .81$. An alternative model was estimated, with, self-reported levels of communication competence, and participants' ratings of Jim's communication competence entered as predictors. Again, results indicated that both the group variance, $z = 3.47$, $p < .01$, and the residual, $z = 6.21$, $p < .01$ were significant. The linear effects of

self-reported levels of communication competence were not significant, b = -0.18, t (79) = -1.82, p = .07, and the linear effects for Jim's communication competence were not significant, b = -0.08, t (79) = -1.37, p = .17. If any of the predictors were significantly related to perceptions of contributed arguments, comparisons of the strength of the relationships would merit further investigation. However, none of the predictors were significantly related to perceptions of contributed arguments, and at this time, there are not any techniques to compare the strength of multi-level model coefficients.

DISCUSSION

Theoretical Implications

Perceived similarity is important to consider when examining groups. Unlike hidden agendas, which are by definition conscious biases that often promote individual over group goals, similarity may subconsciously bias our impressions and attributions of others. For group members, similarity can impact subsequent information sampling processes and decision-preferences (Chen & Kenrick, 2002; Wittenbaum et al., 2004). Similarity can also affect group-related processes, where decision preferences (as a manifestation of similarity) can impact group members' discussion contributions, the formation of majorities and minorities, and expectation-related desirability issues between group members, dependent upon the valence of evaluations the group makes about the shared characteristic. When viewed in this manner, perceived or actual similarity has the ability to impact groups in terms of status and leadership (e.g., I may elevate others' status based on similarity and liking), and sub-group formations (e.g., I tend to agree with this person because we think alike and I am fond of him/her). However, the effects of similarity will be most visible when examined in decision-making groups, where it can impact pre- and post-discussion preferences, as well as discussion contributions.

When limiting the discussion to decision-making groups, there are still many different types of groups that can be influenced by perceived similarity. For example, litigators take great effort in selecting jury members. If an attorney interviews prospective jury members for a case on criminal drug possession, an important question would be whether the prospective jury members have been previously accused of, or recreationally use, drugs. If a potential juror is a known drug user, the commonality between the prospective jury member and the defendant could impact the way that jury member interprets the case, and how he or she processes information about the accused during deliberations. Therefore, similarity between a prospective jury member and a defendant is usually of great concern for attorneys, as it has the potential to impact the ways in which the group (e.g., the jury) deliberates and evaluates a defendant. Another example would be political nominating committees, where candidate and nominee endorsements are based on whether the committee views a particular person as representing similar beliefs and values as those possessed or desired by the committee members. Both of these examples help demonstrate the ways in which perceived similarity can impact group outcomes in real-world settings.

The current study focused on simulating a context similar to hiring committees, as decision-making groups whose decision outcomes might be influenced by perceived similarity. In general, when hiring committees consider applicants' qualifications and

suitability for a position, some hiring decisions may be more obvious than others. For example, one job candidate may have extensive experience and glowing recommendations from previous employers. This candidate would often (dependent upon the needs of the organization) be a clear choice over a candidate who lacks experience, who also has a limited or non-existent work history. In this case, normative influence processes and other factors (e.g., similarity) are not as likely to affect the committee's decision, as the task becomes relatively intellective (Hirokawa, 1990). Here, information about the candidates (e.g., the one with higher qualifications) will often have the greatest impact on hiring decisions. However, not all job candidates will have such obvious differences in their qualifications and/or skills. When hiring committees must consider candidates who are equally qualified for a position, decision preferences tend to become contingent upon other factors that are above and beyond applicants' qualifications. Here, the task becomes more judgmental, where normative influence and factors like similarity become important to group processes (Hirokawa, 1990). For example, empirical work in organizational settings indicated that hiring and promotions committees were more likely to employ and advance people that are similar to the committee members on both personal and organizational goals and values (Jackson et al., 1991). In this case, when considering equally qualified candidates, similarity can impact committee members' job candidate preferences. It could be that one or more committee

members attended the same university as the candidate, or grew up in the same or similar geographic locations. This creates a commonality between a committee member (or multiple committee members) and the candidate that likely influences the way committee members communicate with and behave towards a candidate (Schaubroeck & Lam, 2002). Again, part of this comes from the fact that we tend to like others who are like us. Although liking is not a necessary feature of similarity, both increase the likelihood that a committee member will develop a preference for the candidate. This preference will consequently manifest in the ways that committee member talks about the candidate during group discussions (Wittenbaum et al., 2004). Therefore, when one candidate is clearly more qualified for a position than other candidates, the task is relatively intellective, and informational influence will likely dominate group discussions and decision outcomes. However, when hiring decisions become less obvious (e.g., the task is more judgmental), perceived similarity will likely have the greatest impact on group discussions and decision outcomes.

For decision-making groups, and hiring committees specifically, the impact of perceived similarity seems most evident when evaluated in terms of influence attempts between group members. For example, people will seek out, remember, and contribute to the group discussion, information that is consistent with their preference. In general, group members "tend to make arguments in favor of their positions, not against them"

(Bonito, 2007, p. 255). When a member of a hiring committee develops a preference for a candidate based on similarity, that committee member is more likely to make preference consistent contributions to the group discussion, where any and all available information about the preferred candidate will probably be skewed towards that committee member's preference. Furthermore, the committee member who is similar to his or her preferred candidate will become more invested in the decision outcome than those who do not share or perceive a similarity with a candidate. Therefore, the committee member with a similarity-based preference for a candidate will likely contribute more to the group discussion in terms of defending the candidate against negative evaluations, and provide positive information about the candidate. Increased participation during group discussions is an important potential manifestation of similarity; although the relationship is complicated, evidence suggests that those who contribute more to group discussions are seen as more influential, and often have a greater impact on group outcomes (Bottger, 1984; Sorrentino & Boutillier, 1975).

The current study sought to investigate the link between perceived similarity and influence in decision-making groups, using a task that would compel group members to make judgments about a target. Specifically, the study was designed so that groups would read about, evaluate, and discuss Jim in terms of (a) what kind of a person Jim was, (b) whether a group member would be friends with Jim, and (c) whether a group

member would recommend Jim for a sales and/or customer service position. By answering those three questions, group members evaluated Jim based on personal impressions prior to the group discussion. Perceived similarity, operationalized here as similar levels of communication competence (e.g., competence correspondence) was hypothesized to impact individual group members' initial impressions about Jim, they ways in which members talked about Jim during group discussions, and how influential members would be rated after group discussions. For example, similarity with a candidate would impact normative influence processes in terms of individual decision preferences (e.g., pre-discussion ratings of Jim) and group-related desirability issues (e.g., does the group value the shared characteristic). On the other hand, perceived similarity would also impact informational influence processes in terms of the number of arguments a person generated prior to the group discussion, others' perceptions of discussion contributions, and subsequent inter-member ratings of influence. Findings from the current study support this notion, where the curvilinear relationship between perceived similarity and perceptions of contributed novel arguments indicated that those similar to Jim were rated as having contributed more novel arguments to the group discussion when compared to those dissimilar to Jim. However, while previous literature suggested that those who contribute more novel arguments during the group discussion would be rated as more influential, the current study lacked the ability to statistically link novel

arguments to perceived influence, in that ratings of influence did not vary significantly within groups. Nonetheless, while operational issues affected the ability to fully test some of the hypotheses and research questions (see more below), it seems likely that the way we evaluate ourselves does have some bearing on our perceptions of others on similar characteristics prior to group discussion, and the way we communicate those perceptions during group discussions.

Limitations

From a procedural standpoint, the task used in the current study limited the ability to fully explore perceived similarity and influence in groups. Specifically, the task appeared to be more intellective than the author intended. Although not reported here, this was evinced by the length of group discussions (usually three to five minutes). The fact that groups were able to come to a consensus so quickly indicates that the task did not require much communication, and an increased need for communication is an important characteristic of judgmental tasks (Hirokawa, 1990). Moreover the requirement that groups come to a consensus may have confounded results. For judgmental tasks, consensus is often associated with normative influence, but for intellective tasks it is associated with informational influence (Kaplan & Miller, 1987). Thus, if participants approached the Jim task as an intellective rather than judgmental task, the use of consensus may have decreased the likelihood that people would make

judgments about Jim above and beyond the information provided to them. Subsequently, this might have decreased the likelihood that similarity (based on perceptions) had a strong impact on group discussions or outcomes.

The adaptation of the attribution task to focus on communication competence might have also confounded the ways in which participants evaluated Jim. Communication competence was used in the current study to operationalize perceived similarity because it is relatively non-controversial (when compared to age, race, gender, religion, or other demographic variables by which we may judge others), and yet is still considered important to the impression formation process. An important element of communication competence is that it is also interactional in nature, where competence is linked to the context in which the interaction takes place (Spitzberg & Cupach, 2002). Unfortunately, the current study used a static list of Jim's characteristics to demonstrate his level of communication competence. In recognition that communication competence is an interactional variable, it may have been more appropriate to provide a story where Jim behaved in a communicatively competent (or not) way, which would contextualize and more effectively demonstrate Jim's competence. Furthermore, the two non-communication related items (e.g., going to the movies, mountain biking) may have inadvertently influenced assessments of Jim, as they were both worded in ways that could be interpreted as solitary (e.g., anti-social) activities. This could have, for example,

compelled participants in the ambiguous Jim condition to rate him as lower in communication competence, due to the interpretation that Jim prefers to engage in non-social activities in his spare time.

Another limitation was the measurement of perceived similarity as difference score. Although a more direct measurement of similarity was avoided in order to maintain ecological validity (i.e., rarely would committee members be asked whether they see themselves as similar to a candidate), it limited the types of analyses that could be conducted. For example, linear effects were difficult to interpret because both higher positive and lower negative scores indicated dissimilarity to Jim. In addition, while the square of competence correspondence was used in a number of analyses to account for the incompatibility with traditional tests of linear relationships in its raw form, there was insufficient sample size to evaluate whether those with lower self-reported levels of CC than Jim systematically differed from those with higher self-reported levels of CC. Absolute competence correspondence and standardized competence correspondence were also used to try to more accurately account for similarity, but these also did not yield significant relationships with the proposed dependent variables.

Another potential confound was whether perceived similarity was actually salient to participants. As mentioned, a more direct measure of similarity was avoided during the lab sessions. However, without an included measure, it becomes impossible to know

if participants were in fact making direct comparisons between their own and Jim's levels of communication competence. For example, Likert-type scale items could ask about how similar a person saw him or herself with a target, which could then be correlated with the indirect (competence correspondence) measures. A post-test, similar to the pilot study, will likely be conducted to ensure that asking people to measure their own levels of communication competence, then reading, rating, and answering follow up question about a target's communication competence can sufficiently compel people to perceive similarities (or not) with that target.

Finally, the study was also limited by the exclusion of the discussion data. Although group discussions were captured (see Procedure in Study 2), the processing of the discussion data was beyond the scope of the current project. The round-robin design and SRM analyses were supposed to compensate for the lack of actual discussion data, in that group members' perceptions of one another could have provided quantitative evidence for differences in discussion contributions within and across groups. However, as noted, much of the SRM data was unusable, due to a lack of variance significantly different from zero.

Future Research

While the current study had a number of limitations, a few adjustments would improve the ability to capture and analyze similarity and influence processes in groups as originally intended.

In terms of procedure and design, future studies should utilize materials that more closely imitate actual hiring committees. For example, resumes of different candidates, rather than different descriptions of Jim, could be utilized. Furthermore, if communication competence was still a variable of interest, manipulated versions of video-taped interviews would allow participants and group members to evaluate competence in a communication-based context. Because people tend to rely in nonverbal signals in order to contextualize verbal messages, the use of video-taped interviews would provide a much more dynamic and specific impression of one or more candidates. This would also increase ecological validity, where participants could read resumes, watch video-taped interviews, and then as a group evaluate and choose the best candidate as real-world hiring committees would.

Another way to strengthen the current study would be to use capture similarity in a different manner. This can be done in one of two ways. The first would be to continue to use the hiring committee scenario, but pick some other variable (e.g., education, work history) to capture similarity between a "committee member" and a candidate. However,

this becomes difficult because anti-discrimination laws prevent hiring decisions to be made based on age, race, gender, religious preferences, etc., which limits the number of realistic and measurable characteristics a hiring committee member may have in common with a candidate that will also be a salient characteristic for the group's evaluation process. Even though discrimination likely still exists in real-world hiring committees (i.e., demographic-related factors may influence attribution and impression formation processes), the expectation that groups would openly discuss and evaluate a candidate based on demographics would actually hurt, rather than increase ecological validity and generalizability.

The use of an alternative task might also improve the ability to capture and analyze perceived similarity in decision-making groups. As noted, many other decision-making groups could be affected by perceived similarity with a target. For example mock juries would be a good context to capture influence processes related to similarity and liking, where one or more jury members share a characteristic with a defendant. The use of a mock-jury scenario would also allow researchers to manipulate "admissible evidence" to ensure that a guilty verdict would require extensive communication between group members (i.e., to ensure the task is judgmental). Another context might be to simulate committees that evaluate academic candidates for tenure, where a number of different factors must be evaluated for each candidate. Either one of these contexts

would allow for more personal comparisons (based on demographics or otherwise) to be made, on judgmental tasks that still relate to the kinds of decisions groups make on a regular basis.

In conclusion, researchers should continue to measure both normative and informational influence processes in decision-making groups, as both are likely operating in groups at any given time (albeit at different levels dependent upon other factors like task features). Furthermore, the use of tasks that closely relate to real-world groups allow researchers to impose control through experimental designs, while increasing ecological validity and generalizability. Even though similarity can be captured in a number of different ways, and in a number of different types of decision-making groups, both the task, and the operationalization of normative and informational influence processes should be a consideration when designing comparable experiments. The current study provided some evidence that suggests that group members who share or perceive a similarity with a decision outcome evaluate decision alternatives differently prior to the group discussion than those who do not share or perceive a similarity with a decision outcome. To further our understanding of similarity and influence processes in groups, future studies should seek to link this similarity-based pre-discussion difference with group discussion contributions, and decision outcomes.

APPENDIX A: THE ATTRIBUTION TASK

Attribution Task:

We are interested in learning how people form impressions of others based on their own reasoning and on conversations with others. Today, we would like you to read some information about a young man named Jim Ellison and form impressions of him. We are interested in knowing how you would describe him in your own terms- what is it that makes him a distinctive person, different from other people.

Please read the following information about Jim. As you read it, try to form an overall impression of Jim as a person. Perhaps Jim is like someone you already know. Try to form a complete image of Jim. What are his habits and mannerisms? What are his beliefs and personal characteristics? Please make arguments to support your position.

<u>Jim with high CC</u>
Jim is friendly.
Jim smiles frequently, and often jokes to flatter others.
Jim very rarely interrupts others.
Jim likes to mountain bike in his spare time.
Jim is very in control of his emotions.
Jim maintains a lot of eye contact when speaking with others.
Jim likes to go to the movies.
Jim finds it easy to strike up conversations with strangers.
Jim actively seeks friends that are very different from him.
Jim uses a lot of gestures when he speaks.

<u>Jim with ambiguous CC</u>
Jim is sometimes friendly.
Jim smiles from time to time, and sometimes tells jokes.
Every once in a while Jim interrupts others.
Jim likes to mountain bike in his spare time.
There are times when Jim cannot control his emotions.
Jim sometimes maintains eye contact when speaking with others.
Jim likes to go to the movies.
Jim will sometimes strike up conversations with strangers.
Jim neither actively seeks nor avoids friends that are very different from him.
Jim will sometimes use gestures when he speaks.

Jim with low CC
Jim is unfriendly.
Jim smiles infrequently, and often jokes to disparage others.
Jim often interrupts others.
Jim likes to mountain bike in his spare time.
Jim is almost never in control of his emotions.
Jim rarely maintains eye contact when speaking with others.
Jim likes to go to the movies.
Jim finds it difficult to strike up conversations with strangers.
Jim actively avoids friends that are very different from him.
Jim almost never uses gestures when he speaks.

APPENDIX B: COMMUNICATION COMPETENCE SCALE

Spitberg and Hurt's (1987) Communication Competence Scale

Instructions: Please circle the number that best corresponds with your feelings about Jim's communication patterns.

Unskillful	1	2	3	4	5	6	7	Skillful
Inexpressive	1	2	3	4	5	6	7	Expressive
Inattentive	1	2	3	4	5	6	7	Attentive
Unresponsive	1	2	3	4	5	6	7	Responsive
Anxious	1	2	3	4	5	6	7	Relaxed
Nervous	1	2	3	4	5	6	7	Confident
Inappropriate	1	2	3	4	5	6	7	Appropriate
Ineffective	1	2	3	4	5	6	7	Effective

APPENDIX C: COMMUNICATIVE COMPETENCE SCALE

Communicative Competence (Pavitt, 1990)

Judgments of Communicator Characteristics
I can adapt to changing situations.
I treat people as individuals.
I interrupt the person I'm talking with too much.
I am "rewarding" to talk to.
I am a good listener.
My personal relations are cold and distant.
I won't argue with someone just to prove I'm right.
My conversation behavior is not "smooth."
I ignore other people's feelings.
I generally know how others feel.
I let others know I understand them.
I understand other people.
I am relaxed and comfortable when speaking.
I listen to what other people say to me.
I like to be close and personal with people.
I generally know what type of behavior is appropriate in any given situation.
I am an effective conversationalist.
I am supportive of others.
I can easily put myself in another person's shoes.
I pay attention to the conversation.
I generally am relaxed when conversing with a new acquaintance.
I am interested in what my conversational partner has to say.
I don't follow my conversations very well.
I enjoy social gatherings where I can meet new people.
I am a likeable person.
I am flexible.
I am not afraid to speak with people in authority.
People can come to me with their problems.
I like to use my voice and body expressively.
I am sensitive to others' needs of the moment.

Evaluations of Communicator Competence
I find it easy to get along with others.
I can deal with others effectively.
I am easy to talk to.
I usually do not make unusual demands on my friends.
I do not mind meeting strangers.
I generally say the right thing at the right time.

APPENDIX D: RVCC1

Pavitt's (1990) RVCC1

I can adapt to changing situations.
I treat people as individuals.
I interrupt the person I'm talking with too much.
I am "rewarding" to talk to.
I am a good listener.
My personal relations are cold and distant.
I won't argue with someone just to prove I'm right.
My conversation behavior is not "smooth."
I ignore other people's feelings.
I generally know how others feel.
I let others know I understand them.
I understand other people.
I am relaxed and comfortable when speaking.
I listen to what other people say to me.
I like to be close and personal with people.
I find it easy to get along with others.
I can deal with others effectively.
I am easy to talk to.

Pavitt's (1990) RVCC2

I generally know what type of behavior is appropriate in any given situation.
I am an effective conversationalist.
I am supportive of others.
I can easily put my self in another person's shoes.
I pay attention to the conversation.
I generally am relaxed when conversing with a new acquaintance.
I am interested in what my conversational partner has to say.
I don't follow my conversations very well.
I enjoy social gatherings where I can meet new people.
I am a likeable person.

I am flexible.
I am not afraid to speak with people in authority.
People can come to me with their problems.
I like to use my voice and body expressively.
I am sensitive to others' needs of the moment.
I usually do not make unusual demands on my friends.
I do not mind meeting strangers.
I generally say the right thing at the right time.

APPENDIX E: M-CSDS

Fischer and Fisk's (1993) Social Desirability: M-CSDS Short Form

Please respond with true or false to the following statements:

I like to gossip at times. ®

There have been occasions when I took advantage of someone. ®

I'm always willing to admit it when I make a mistake.

I sometimes try to get even rather than forgive and forget. ®

At times I have really insisted on having things my own way. ®

I have never been irked when people expressed ideas very different from my own.

I have never deliberately said something that hurt someone's feelings.

APPENDIX F: BONITO'S DI SCALE

Adapted version of Bonito's (2000) Discussion Influence Scale.

Please refer to this snapshot [picture will be inserted] to answer the questions below. Each person's name is provided under their camera shot. You'll be asked questions about each person, so this picture ought to help you remember who is who.

1) In this meeting, the person named _____ made good arguments.

2) In this meeting, the person named _____ seemed disinterested.

3) In this meeting, the person named _____ interrupted when others were speaking.

4) _____ encouraged others to participate.

5) In this meeting, the person named _____ said things that kept the group focused on getting the job done.

6) In this meeting, the person named _____ said things that made his or her opinion clear.

7) In this meeting, the person named _____ contributed arguments that I had not thought of before entering the group discussion.

8) In this meeting, the person named _____ contributed many of the same arguments throughout the group discussion.

9) In this meeting, the person named _____ often focused on how many people agreed with their position.

10) In this meeting, the person named _____ did not make arguments based on how many people agreed with his/her opinion.

11) In this meeting, I found myself agreeing with the person named _____ often.

12) In this meeting, I felt influenced by what the person named _____ had to say.

APPENDIX G: CODEBOOK FOR ARGUMENT CATEGORIZATION

We are not concerned with or coding for what the opinion is (e.g., I would/would not recommend him for a customer service job, I did or did not like this quality about him), with the exception of "Good friend" (see below). We are looking at why they have the opinion, not what the opinion is. Each argument, which are separated by "/" marks, will be coded as a 1 (argument is positive) or 2 (argument is negative, or opposite- category is caring, and they say Jim is uncaring), so in a cell you might have 111 for three of the same positive arguments, or 22 for two of the same negative arguments. Some it's hard to say a valence, which is okay. Categorizing it under the right code is more important than valence. Biggest deal: each argument should only receive one code under one category.

1) Active: they actually use this word, can be abstract (active in hobbies, wants to do things)

2) Outdoors: literal use
   a. Example: "He likes the outdoors." Would be coded 1

3) Positive: they use this word specifically
   a. Example: "He seems like a positive person." Would be coded 1

4) Smart: use this word specifically
   a. or similar words like intelligent, knowledgeable

5) "Regular guy": literal use of these two phrases only: "He seems like a regular guy" or "Average Joe" would get a 1.
   a. However, <u>do not code</u> (meaning ignore) any specific use of the word "distinctive" or phrases like "he is not like others" or "compared to others" or "he's unique" because that's in the question prompt and they're just repeating it. You won't see a lot of this, but if you see something like "he is more attentive than others," you would only code it for attentiveness.

6) Fun: the actual use of this word, or "entertaining" ,likes to do fun things

7) Good friend: Only count if they repeat it after giving their initial opinion. Don't count the first time they say it, just every time after that.
   a. Example: "Jim would be a good friend. He's outgoing, nice, and likes fun things. I think he would be a fun friend. I would be friends with him." Total count for this category would be 11.
   b. I would want a friend like that
   c. EXCEPTION: count if in combination with an argument as the argument, NOT this category
      i. Example: "Jim would be a fun friend. He's a good listener, and would give good advice." You would code this for category 6 as "fun", not here
      ii. He'd be a reliable friend, again would be coded for category 44 for reliable
         1. Ignore "good" or "bad" or "great" or "very good" "very bad" descriptions (e.g., Jim would be a good friend). We only care if it says something above and beyond these generic terms (e.g., an entertaining friend)
      iii. Example: "I am uncertain about Jim. He seems shy and slightly rude. I don't know if I would be friends with him because he probably would not be friends with me." Total count for this would be 2

8) Good person: actual use of this phrase

9) Friendly: literal use as in he's friendly would get a 1. He's not friendly/unfriendly would get a 2

10) Outgoing: literal use, and synonyms like adventurous, upbeat personality, likes to be a part of society
   a. Likes to express himself, inviting/welcoming, gets others to open up
   b. Example: "Likes to be a part of society/ and people." This would be 11 for this category, and 1 for to category 12 which is talk to others, strangers

c. Example: “Jim is shy” or introverted would be a 2. Anything about being alone or a loner would go under 51

11) Open: actual use of this word

12) Willing to talk to others/strangers: literal and synonyms.
a. Likes to talk with different people, can/willing talk to strangers, easily communicates/engages with others
b. relates to different people, eager to meet people, not afraid of others
c. likes friends different from himself
d. 2 if doesn’t like talking to people, won’t talk to strangers, etc.

13) Supportive: actual use of this word, “being there for you” and empathy

14) Attentive: actual use, “he pays attention and shows he cares about what people say”
a. Makes people feel important

15) Social skills/people skills: literal use or “he’s good with people” or “people pleaser” “interpersonal skills” or

16) Appropriate/Handles situations well: literal and synonyms. Knows how to act in certain situations, can deal with stress, etc.
a. Manages well in unknown situations

17) Easy going: literal, and synonyms like “laid-back” or goes with the flow
a. Gets along with others

18) Communication skills: literal use. – knows how to communicate, his communication habits, uses proper words to express himself,
a. Otherwise, communication behaviors are listed out separately in other codes.

19) Social/Interactive: literal like he is social, or he likes doing interactive things

a. Engaging

20) Try new things: or synonyms, likes to explore new things, etc.
   a. Or "exciting"

21) Have a good time: either he wants a good time, OR directly relating to going out with him: He and I would have fun going out, I would want to go out with Jim because we would have a good time

22) Nice: actual word and synonyms like kind (but not caring, which has its own category)

23) Listens: literal or synonyms: is/is not a good listener, he likes to listen, etc. Remember, though, literal use of the word "attentive" is not the same and would go under 14

24) Helps with problems: would help out when I'm having problems, gives good advice, etc., helpful

25) Smiles: actual reference to him smiling (or he doesn't smile would be a 2)

26) Complementary to others: literal, and things like wouldn't put people down, flattering.

27) Has hobbies: any general reference to mountain biking or watching movies (aside from if they say active or likes the outdoors).
   a. Exception: like with "good friends," if they mention a hobby in terms of SOMETHING ELSE, like he sounds fun because he mountain bikes, categorize for fun
   b. so just a generic mention, code here
      i. If it says he picks activities that don't require him to interact with others, categorize for 51 for being a loner

28) Unclear of skills: any reference to being unsure or unclear about Jim's capabilities

29) Don't share hobbies: unlike 27, this is specifying that he or she does not have that activity in common, that they don't share similar interests, etc.

30) Likeable/Personable: literal. Example: is liked by everyone he meets, he's likeable, he is personable etc.
   a. He's not likely to have enemies

31) Eye contact: literal reference to his use or lack of eye contact

32) Confident: literally he's a confident person, his personality indicates that he's confident. #2s would be awkward, unsure etc.

33) Considerate: literal use. Considerate or not considerate/inconsiderate. That's it.
   a. Empathy etc. would go under #13- supportive

34) Well mannered: literal use. Otherwise likely belongs under #16

35) Talented: actual use of the word talented and that's it

36) Show off/full of self: literal and synonyms, arrogance, etc.

37) Shares feelings: literal and "can express his feelings" or "open with feelings"; anything that makes specific reference to feelings. This is not about controlling or not controlling feelings/emotions, which is 48. This is just ability to share or talk about them.

38) Manager/leader: any reference to Jim literally being a leader or manager.

39) Happy: literal use

40) Gestures: literal like "uses a lot of gestures" and synonyms like "animated"

41) Doesn't interrupt: literal. Not about listening, which is #23. Any literal reference to interrupting
    a. Here a #2 would actually be if they do interrupt

42) East to talk to: actual direct reference of being easy to talk to. Otherwise it's likely #27 or social skills.

43) Honest/trustworthy: literal and synonyms like ethical

44) Reliable: literal use

45) No flaws: literal use.
    a. nothing stood out about him
    b. he has all positive characteristics/he has no flaws
    c. You'll know it when you see it.

46) Caring: literal use

47) Respectful: literal use, and antonyms like rude for 2s under this category

48) Controls emotions: literal mention of either in control of emotion (1) or not in control of his emotion (2)
    a. also, anger or anger issues would go under here with a 2

49) Rational: literal use

50) Jokes/humor: literal- any mention of jokes or sense of humor

51) Loner: literal, and "likes to be alone" or "doesn't seem to like to be around people", is a "lone wolf" or "reclusive"

52) Effective/gets things done: literal. Usually said in reference to whether or not they'd recommend him for a sales/customer service job.

a. Organized
b. Multitasker
c. Successful or any reference to success

REFERENCES

Abrams, D., & Hogg, M. A. (1990). Social identification, self-categorization and social influence. *European Review of Social Psychology, 1*(1), 195-228. doi:10.1080/14792779108401862

Amiot, C. E., & Sansfacon, S. (2011). Motivations to identify with social groups: A look at their positive and negative consequences. *Group Dynamics: Theory, Research, and Practice. 15*(2), 105-127. doi:10.1037/a0023158

Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership, and men* (pp. 177-190). Pittsburg, PA: Carnegie.

Asch, S. E. (1955). Opinions and social pressure. *Scientific American, 193*(5), 31-35. doi:10.1038/scientificamerican1155-31

Asch, S. E. (1956). Studies of independence and submission to group pressure: I. A minority of one against a unanimous majority. *Psychological Monographs, 70*(9), 31-35.

Beersma, B., & De Dreu, C. K. W. (2002). Integrative and distributive negotiation in small groups: Effects of stask structure, decision rule, and social motive. *Organizational Behavior and Human Decision Processes, 87*(2), 227-252. doi:10.1006/obhd.2001.2964

Bonito, J. A. (2000). The effect of contributing substantively on perceptions of participation. *Small Group Research, 31*(5), 528-553. doi:10.1177/104649640003100502

Bontio, J. A. (2007). A local model of information sharing in small groups. *Communication Theory, 17*(3), 252-280. doi:10.111/j.1468-2885.2007.00295.x

Bottger, P. C. (1984). Expertise and air time as bases of actual and perceived influence in problem-solving groups. *Journal of Applied Psychology, 69,* 214-221.

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity* (pp. 35-58). Oxford: Blackwell Publishers Ltd.

Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). 5 domains of interpersonal competence in peer relations. *Journal of Personality and Social Psychology, 55*(6), 991-1008. doi:10.1037/0022-3514.55.6.991

Burnstein, E., & Vinokur, A. (1977). Persuasive argumentation and social comparison as determinants of attitude polarization. *Journal of Experimental Social Psychology, 13*(4), 315-332. doi:10.1016/0022-1013(77)90002-6

Chen, F. F., & Kenrick, D. T. (2002). Repulsion or attraction? Group membership and assumed attitude similarity. *Journal of Personality and Social Psychology, 83,* 111-125. doi:10.1037//0022-3514.83.1.111

Cialdini, R. B., & De Nicholas, M. E. (1989). Self-presentation by association. Journal of Personality and Social Psychology, 57(4), 626-631. doi:10.1037/0022-3514.57.4.626

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334. doi:10.1007/BF02310555

Curran, J. P. (1979). Pandora's box reopened? The assessment of social skills. *Journal of Psychopathology and Behavioral Assessment, 1*(1), 55-71. doi:10.1007BF01322418

Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal Social Psychology, 51*(3), 629-636. doi:10.1037/h0046408

DeVellis, R. F. (1991). *Scale development: Theory and applications.* Newbury Park, CA: Sage.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*(2), 117-140. doi:10.1177/001872675400700202

Fischer, D. G., & Fisk, C. (1993). Measuring social desirability: Short forms of the Marlowe-Crowne social desirability scale. *Educational and Psychological Measurement, 53*(2), 417-424. doi:10.1177/0013164493053002011

Goldberg, C. B. (2005). Relational demography and similarity-attraction in interview assessments and subsequent offer decisions. *Group & Organizational Management, 30,* 597-624. doi:10.1177/1059601104267661

Goldberg, C. B., Riordan, C., & Schaffer, B. S. (2010). Does social identity theory underlie relational demography? A test of the moderating effects of uncertainty reduction and status enhancement on similarity effects. *Human Relations, 63*(7), 903-926. doi:10.1177/0018726709347158

Guetzkow, H. (1950). Unitizing and categorizing problems in coding qualitative data. *Journal of Clinical Psychology, 6*, 47-58. doi: 10.1002/1097-4679(195001)6:1<47::AI

Hazleton, V., & Cupach, W. R. (1986). An exploration of ontological knowledge: Communication competence as a function of the ability to describe, predict, and explain. *Western Journal of Speech Communication, 50*(1), 119-132.

Hinsz, V. B., & Davis, J. H. (1984). Persuasive arguments theory, group polarization, and choice shifts. *Personality and Social Psychological Bulletin, 10*(2), 260-268. doi:10.1177/0146167284102012

Hirokawa, R. Y. (1990). The role of communication in group decision-making efficacy: A task-contingency perspective. *Small Group Research, 21*(2), 190-204. doi:10.1177/1046496490212003

Hoffman, L. R. (1979). *The group problem solving process*. New York: Praeger.

Issac, S., & Michael, W. B. (Eds.). (1981). *Handbook in research and evaluation: For education and the behavioral sciences* (2nd. ed). San Diego, CA: EdITS.

Isenberg, D. J. (1986). Group polarization: A critical review and meta-analysis. *Journal of Personality and Social Psychology, 50*(6), 1141-1151. doi: 10.1037/0022-3514.50.6.1141

Jackson, S. E., Brett, J. F., Sessa, V. I., Cooper, D. M., Julin, J. A., & Peyronnin, K. (1991). Some difference make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and turnover. *Journal of Applied Psychology, 76,* 675-689.

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology, 31,* 457-501.

Kaplan, M. F. (1987). The influencing process in group decision making. In C. Hendrick (Ed), *Review of Personality and Social Psychology,* (pp. 189-212). Newbery Park CA: SAGE.

Kaplan, M. F., & Miller, C. E. (1987). Group decision making and normative versus informational influence effects of type of issue and assigned decision rule. *Journal of Personality and Social Psychology,* 53(93), 306-313. doi:10.1037/0022-3514.53.2.306

Kenny, D. A. (1994). *Interpersonal perception: A social relations analysis.* New York: The Guilford Press.

Lamm, H., & Myers, D. G. (1978). Group-induced polarization of attitudes and behavior. In L. Berkowitz (Ed.) *Advances in experimental social psychology*, (Vol. 11, pp. 145-195). New York: Academic Press.

Larson, J. R. (1997). Modeling the entry of shared and unshared information into group discussion: A review and basic language computer program. *Small Group Research, 28*(3), 454-479. doi:10.1177/1046496497283007

Laughlin, P. R., & Ellis, A. L. (1986). Demonstrability and social combination processes on mathematical intellective tasks. *Journal of Experimental Social Psychology*, *22*(3), 177-189. doi:10.1016/0022-1031(86)90022-3

Laughlin, P. R., Kerr, N. L., Munch, M. M., & Haggarty, C. A. (1976). Social decision schemes of the same four-person groups on two different intellective tasks. *Journal of Personality and Social Psychology*, *33*(1), 80-88. doi: 10.1037/0022-3514.33.1.80

Madsen, D. B. (1978). Issue importance and group choice shifts: A persuasive arguments approach. *Journal of Personality and Social Psychology, 36*(10), 1118-1127. doi:10.1037/0022-3514.36.10.1118

McPhee, R. D., Poole, M. S., & Seibold, D. R. (1981). The valence model unveiled: Critique & alternative formulation. In M. Burgoon (Ed.), *Communication yearbook* (5th ed., pp. 259-278). New Brunswick, NJ: Transaction.

Meyers, R. A. (1989). Persuasive arguments theory: A test of assumptions. *Human Communication Research, 15*(3), 357-381. doi:10.1111/j.1468-2958.1989.tb00189.x

Meyers, R. A., Brashers, D. E., & Hanner, J. (2000) Majority-minority influence: identifying

argumentative patterns and predicting argument-outcome links. *Journal of Communication, 50*(4), 3-30. doi:10/1111/j.1111/j.1460-2466.2000.tb02861

Meyers, R. A., & Seibold, D. R. (1990). Perspectives on group argumentation: A critical review of persuasive arguments theory and an alternative structurational view. In J. A. Anderson (Ed.), *Communication yearbook: Vol. 13* (pp. 268-302). Newbury Park, CA: Sage.

Mojzisch, A., Grouneva, L., & Schulz-Hardt, S. (2010). Biased evaluation of information during discussion: Disentangling the effects of preference consistency, social validation, and ownership of information. *European Journal of Social Psychology, 40,* 946-956. doi:10.1002/ijsp.660

Moscovici, S., Lage, E., & Naffrechoux, M. (1969). Influence of a consistent minority on the responses of a majority in a color perception task. *Sociometry, 32*(4), 365-380.

Myers, D. G., & Lamm, H. (1976). The group polarization phenomenon. *Psychological Bulletin, 83*(4), 602-627. doi:10.1037/0033-2909.83.4.602

Otten, S., & Moskowitz, G. B. (2000). Evidence for implicit evaluative in-group bias: Affect-biased spontaneous trait inference in a minimal group paradigm. *Journal of Experimental Social Psychology, 36,* 77-89. doi:10.1006/jesp.1999.1399

Pavitt, C. (1989). Accounting for the process of communicative competence evaluation: A comparison of predictive models. *Communication Research, 16*(3), 405-433. doi:10.1177/00965089016003005.

Pavitt, C. (1990). The ideal communicator as the basis for competence judgments of self and friend. *Communication Reports, 3*(1), 9-14. doi: 10.1080/08934219009367495

Pavitt, C. (1993). Does communication matter in social influence during small group discussion? Five positions. *Communication Studies, 44,* 216-227. doi:10.1080/10510979309368396

Pavitt, C., & Haight, L. (1986a). Implicit theories of communication competence: Situational and competence level differences in judgments of prototype and target. *Communication Monographs, 53*(3), 221-235. doi:10.1080/03637758609376138

Pavitt, C., & Haight, L. (1986b). Implicit theories of communicative competence: The semantics of social behavior. *Central States Speech Journal, 37*(4), 204-219. doi:10.1080/10510978609368220.

Poole, M. S., McPhee, R. D., & Seibold, D. R. (1982). A comparison of normative and interactional explanations of group decision-making: Social decision schemes versus valence distributions. *Communication Monographs, 49*(1), 1-19. doi:10.1080/03637758209376067

Preacher, K. J. (2002). Calculation for the test of the difference between two independent correlation coefficients [Computer software]. Available from http://quantpsy.org.

Propp, K. M. (1997). Information utilization in small group decision making. *Small Group Research, 28,* 424-453. doi: 10.1177/1046496497283006

Propp, K. M. (1999). Collective information processing in groups. In L. R. Frey (Ed.) *The handbook of group communication theory & research,* (pp. 225-250). Thousand Oaks, CA: Sage Publications, Inc.

Ramsay, S., Gallois, C., & Callan, V. J. (1997). Social rules and attributions in the personnel selection interview. *Journal of Occupational and Organizational Psychology, 70,* 189-203.

Roese, N. J., & Olson, J. M. (2007). Better, stronger, faster: Self-serving judgments, affect regulation, and the optimal vigilance hypothesis. *Perspectives on Psychological Science, 2*(2), 124-141. doi:10.1111/j.1745-6916.2007.00033.x

Sanders, G. S., & Baron, R. S. (1977). Is social comparison irrelevant for producing choice shifts? *Journal of Experimental Social Psychology, 13*(4), 303-314. doi:10.1016/0022.1031(77)90001-4

Schaubroeck, J., & Lam, S. S. K. (2002). How similarity to peers and supervisor influences organizational advancement in different cultures. *The Academy of Management Journal, 45,* 1120-1136.

Seibold, D. R., Meyers, R. A., & Sunwolf. (1996). Communication and influence in small group decision making. In R. Y. Hirokawa & M. S. Poole (Eds.), *Communication and group decision making* (2nd ed., pp. 242-268). Thousand Oaks, CA: Sage.

Sherif, M. (1961). Conformity-deviation, norms, and group relations. In I. A. Berg & B. M. Bass (Eds.), *Conformity & deviation* (pp. 156-198). New York: Harper.

Sorrentino, R. M., & Boutillier, R. G. (1975). The effect of quantity and quality of verbal interaction on ratings of leadership ability. *Journal of Experimental Social Psychology, 11,* 403-411.

Spitzberg, B. H., & Cupach, W. R. (2002). Interpersonal skills. In M. L. Knapp & J. A. Daly (Eds.) *Handbook of interpersonal communication (3rd ed.),* pp. 564-611.

Spitzberg, B. H., & Hurt, H. T. (1987). The measurement of interpersonal skills in instructional contexts. *Communication Education, 36*(1), 28-45. doi:10.1080/03634528709378639

Stasser, G. (1999). A primer of social decision scheme theory: Models of group influence, competitive model-testing, and prospective modeling. *Organizational Behavior and Human Decision Processes, 80*(1), 3/20. doi:10.1006/obhd.1999.2851

Stasser, G., & Titus, W. (1985). Pooling of unshared information in group decision making: Biased information sampling during discussion. *Journal of Personality and Social Psychology*, *42*(6), 1467-1478. doi:10.1037/0022-3514.48.6.1467

Stasson, M. F., & Hawkes, W. G., (1995). Effect of group performance on subsequent individual performance: Does influence generalize beyond the issues discussed by the group? *Psychological Science*, *6*(5), 305-307.

Strass, J. P., Barrick, M. R., & Connerly, M. L. (2001). An investigation of personality similarity effects (relational and perceived) on peer and supervisor ratings and the role of familiarity and liking. *Journal of Occupational and Organizational Psychology, 74*, 637-657. doi:10.1348/096317901167569

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *Psychology of intergroup relations*, (pp. 94-109), Monterey, CA: Brooks Cole.

Tajfel, H., & Turner, J. (1986). The social identity theory of ingroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations*, (pp. 7-24). Chicago: Nelson-Hall Publishers.

Troyer, L., & Younts, C. W. (1997). Whose expectations matter? The relative power of first- and second-order expectations determining social influence. *American Journal of Sociology, 3,* 692-732. doi:10.1086/231253

Turner, J. C. (1991). *Social influence*. Buckingham: Open University Press.

Turner, J. C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje, *Social identity,* (pp. 1-34). Malden, MA: Blackwell Publishers Ltd.

Vinokur, A., & Burnstein, E. (1974). Effects of partially shared persuasive arguments on group-induced shifts: A group-problem-solving approach. *Journal of Personality and Social Psychology*, *29*(3), 305-315. doi:10.1037/h0036010

Vinokur, A., & Burnstein, E. (1978). Novel argumentation and attitude change: The case of polarization following group discussion. *European Journal of Social Psychology, 8*(3), 335-348. doi:10.1002/ejsp.2420080306

Vinokur, A., Trope, Y., & Burnstein, E. (1975). A decision-making analysis of persuasive argumentation and the choice-shift effect. *Journal of Experimental Social Psychology, 11*(2), 127-148. doi:10.1016/s0022-0131(75)50016-3

Wiemann, J. M. (1977). Explication and test of a model of communicative competence. *Human Communication Research, 3*(3), 195-213. doi:10.1111/j.1468-2958.1977.tb00518.x

Wittenbaum, G. M., Hollingshead, A. B., & Botero, I. C. (2004). From cooperative to motivated information sharing in groups: Moving beyond the hidden profile paradigm. *Communication Monographs, 71*(3), 286-310. doi:10.1080/0363452042000299894

Table 1

Social Relations Model Partner Effect Estimates

Item	*M*	*SD*	*t* Value
1) In this meeting, the personnamed _____ made good arguments.	0.18	0.30	3.23**
2) In this meeting, the person named _____ seemed disinterested.	0.01	0.52	0.09
3) In this meeting, the person named _____ interrupted when others were speaking.	0.08	0.30	1.42
4) _____ encouraged others to participate.	0.17	.81	1.10
5) In this meeting, the person named _____ said things that kept the group focused on getting the job done.	0.11	0.35	1.63
6) In this meeting, the person named _____ said things that made his or her opinion clear.	0.02	0.16	0.79
7) In this meeting, the person named _____ contributed arguments that I had not thought of before entering the group discussion.	0.13	0.30	2.34*
8) In this meeting, the person named _____ contributed many of the same arguments throughout the group discussion.	-0.02	0.15	-0.76
9) In this meeting, the person named _____ often focused on how many people agreed with their position.	-0.01	0.19	-0.32
10) In this meeting, the person named _____ did not make arguments based on how many people agreed with his/her opinion.	0.02	0.13	0.99
11) In this meeting, I found myself agreeing with the person named _____ often.	-0.10	0.30	-1.85
12) In this meeting, I felt influenced by what the person named _____ had to say.	0.17	0.60	1.50

Note. * $p < .05$. ** $p < .01$

Table 2

Descriptive Statistics

	Pre-Discussion	Post-Discussion
Variable	*M* (*SD*)	*M* (*SD*)
Self-reported CC	5.58 (0.62)	5.73 (0.69)
Jim's CC Rating	4.01 (1.52)	4.01 (1.86)
Difference Scores	1.57 (1.64)	1.72 (2.01)

Note. CC = communication competence.

Table 3

Descriptive Statistics on RVCC1 Dimensions

	Pre-Discussion	Post-Discussion		
Variable	*M* (*SD*)	*M* (*SD*)	*t*	*r*
Judgment of CC	5.49 (0.64)	5.75 (0.70)	-4.21**	.52
Evaluation of CC	6.03 (0.76)	5.60 (0.81)	5.35**	.43

Note. CC = communication competence. * $p < .05$. ** $p < .01$.

Table 4

Correlation Matrix of Independent and Dependent Variables

Items	1	2	3	4	5	6	7	8	9
1. Pre-disc. Self CC	__	.13	.00	.01	.37**	.28**	.70**	.52	-.06
2. Novel Arguments		__	.68**	.19*	-.13	-.13	-.04	.14	.22*
3. Total Arguments			__	.08	-.08	-.05	-.06	.05	.10
4. Pre-discussion Jim Rating				__	-.93**	-.84**	-.70**	-.06	.89**
5. Competence Correspondence					__	.89**	.92**	.27**	-.85**
6. Absolute Competence Correspondence						__	.80**	.20*	-.77**
7. Standardized Competence Correspondence							__	.44**	-.68**
8. Post-discussion Self CC								__	-.04
9. Post-discussion Jim Rating									__

Note. * $p < .05$. ** $p < .01$.

Table 5

Correlations Between Self-reported CC and Novel Pre-discussion Arguments

	Lower than Jim's CC			Higher than Jim's CC			Total		
Dimension	*n*	*M* (*SD*)	*r*	*n*	*M* (*SD*)	*r*	*n*	*M* (*SD*)	*r*
Judge of CC	22	5.17 (0.59)	.27	85	5.57 (0.63)	.11	107	5.49 (0.64)	.11
Eval of CC	22	5.98 (0.93)	.31	85	6.05 (0.71)	.23*	107	6.03 (0.76)	.25*

Note. CC = communication competence. * $p < .05$. ** $p < .01$.

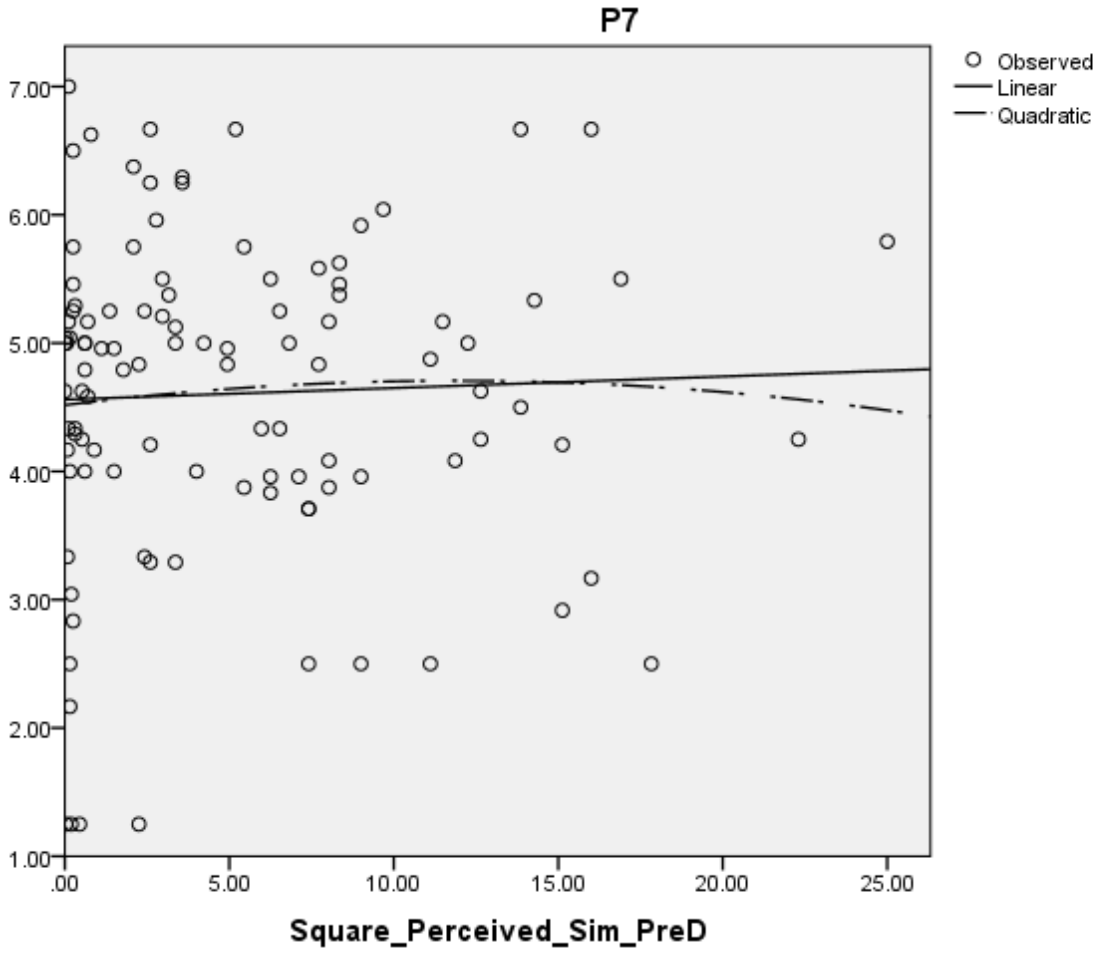

Figure 1. Squared competence correspondence as a predictor of perceptions of contributed novel arguments. A significant curvilinear effect indicated that the more dissimilar a person's self-reported communication competence rating was from Jim's rated communication competence, the fewer novel arguments that person was perceived as having contributed to the group discussion.