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GENERATIVE VERSUS CAUTIOUS PROCESSING:

SHARED MOODS AND GROUP-LEVEL INFORMATION PROCESSING

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ABSTRACT

In this paper, I propose a *Mood-as-Strategy Framework* for understanding the effects of mood on group-level information processing. Across two experiments, I find that group members with shared positive moods develop a *generative processing strategy*, characterized by a focus on the unique, critical information that each group member can offer, in addition to the information that group members receive in common. In contrast, group members who share a negative mood develop a *cautious processing strategy*, characterized by a focus on the common information, but not on the unique information that each group member can provide. When group members do not share the same mood state (i.e. they experience diverse moods), group members fail to develop a common focus on the information, and instead engage in *satisficing*, characterized by a low focus on all of the information, and a heavy reliance on initial preferences. As a consequence of these different strategies, group members in positive moods, as compared to those in negative or diverse moods, perform well on tasks that require generating unique information. These experiments are important as they establish that (1) moods influence group processing independent of the effects of mood on individual information processing, (2) differences in processing strategies explain the effects of mood on performance, and (3) the experience of shared moods is just as important as the valence of the mood when considering the effect of mood on group-level information processing.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

INTRODUCTION

"Emotions appear to be basically social in nature, not so much because of what elicits them, but because of what they motivate the subject to do or not to do." --Fridja & Mesquita, 1994, p. 76

Like Fridja and Mesquita (1994), I believe that moods and emotions play an important role in people's lives because they motivate action. Indeed, a great deal of research examines the motivational role that moods play in information processing and decision-making (see Clore, Gasper, & Garvin, 2001; Gasper & Bramesfeld, in press; Martin & Clore, 2001; Schwarz & Clore, 1983; 1988; 2003 for reviews). Interestingly, however, most of this research has focused on the individual, with little research examining the social role of moods in information processing and decision-making (Bramesfeld & Gasper, 2006; Kelly, 2001). This oversight is surprising, as much of the information that people process about the world is social in nature. Important decisions are frequently made by groups of people, rather than individuals (see Hackman, 1987; Hinsz, Tindale & Vollrath, 1997; Kozlowski & Bell, 2003 for reviews). As such, it may be especially important to understand the role that shared moods play in group-level information processing and problem solving. In this paper, I use theory and research on mood and information processing, as well as group problem solving, as a basis for proposing and testing a *Mood-As-Strategy Framework* for understanding the effects of shared moods on group-level information processing (see Table 1):

TABLE 1: *Mood-as-Strategy Framework*

Mood State	Strategy	Group Processing	Outcomes
Shared Positive	Generative	+ Focus on critical info + Focus on common info – Reliance on majority pref	+ Performance + Consensus
Shared Negative	Cautious	– Focus on critical info + Focus on common info + Reliance on majority pref	– Performance – Consensus
Diverse	Satisficing	– Focus on critical info – Focus on common info + Reliance on majority pref	– Performance – Consensus

In this framework, I hypothesize that group members who share a positive mood develop a common *generative processing strategy*, in that they feel that they should focus on generating new ideas. This generative focus on the information results in group members focusing on and using the unique, critical information that each group member can offer, in addition to the information that group members all receive in common. In contrast, group members who share a negative mood develop a common *cautious processing strategy*, in that they feel that they should focus on the safest information. This cautious focus on the information results in group members focusing on common information and majority preferences, rather than on the unique, critical information that each group member can offer. As a consequence, group members in positive moods should perform better than group members in negative moods on tasks that require generating unique information, and they should be more likely to reach a true group consensus regarding the group decision.

I also hypothesize that it is the *shared* experience of positive and negative moods that leads to a common focus among group members. In the absence of shared moods

(i.e. when group members experience diverse moods), group members should fail to develop a common focus on the information, and instead engage in *satisficing*, a process by which group members discuss information only for as long as it takes to reach a satisfactory solution. Below I discuss each of these hypotheses in greater detail.

The Mood-as-Strategy Framework

Processing Strategy

Moods influence information processing because they provide information about the environment, which then directs and encourages action (Clore et al., 2001; Gasper & Bramesfeld, in press; Schwarz & Clore, 2003; see also Arnold, 1960). Positive moods (general, diffuse feelings of happiness, pleasantness, and certainty) provide information indicating that all is well, whereas negative moods (general, diffuse feelings of sadness, unpleasantness, or uncertainty) provide information indicating that that an environment is problematic (Clore et al., 2001). Research indicates that this affective information then alters the level at which people process information (Gasper & Clore, 2002). When a situation is fine, people tend to think at a global level, which helps them to generate and connect general ideas (Vallacher & Wegner, 1989). When a situation is problematic, people tend to think at a narrow and cautious level, which helps them to solve the problem at hand (Sorrentino & Short, 1986; Vallacher & Wegner, 1989). If positive moods indicate that the situation is fine, while negative moods indicate that a situation is

problematic, then positive moods may encourage a *generative focus* on information, and negative moods may encourage a *cautious focus* on information.

Consistent with this idea, many theories of mood and information processing, including the affect-as-information perspective (Clore et al., 2001), the dual force model (Fiedler, 2001), and the broaden and build model of affect (Fredrickson, 1998; 2001) posit that positive moods encourage a broad, generative focus on information, while negative moods encourage a narrow, cautious focus on information. Indeed, the broad, generative focus of those in positive moods can explain why individuals in positive moods are more likely than those in negative moods to process information broadly (Bless et al., 1996), rely on global information such as heuristics (Melton, 1995), stereotypes, (Bodenhausen, Kramer, & Susser, 1994), scripts (Bless, et al. 1996), and schemas (Gasper & Clore, 2002), generate unique solutions to problems (Isen, Daubman, & Nowicki, 1987), make active elaborations on information (Fiedler, 2001), respond creatively on word association tasks (Gasper & Bramesfeld, 2006), quickly identify key pieces of information (Isen & Means, 1983), efficiently implement creative solutions to problems (Grawitch, Munz, & Kramer, 2003), and integrate new information into one's own understanding (Estrada, Isen, & Young, 1997). Likewise, the narrow, cautious focus of those in negative moods can explain why individuals in negative moods are more likely than those in positive moods to strictly adhere to the rules of a task (Gasper & Bramesfeld, 2006), pay attention to details (Gasper & Clore, 2002; Bless et al., 1996), systematically process information (see Clore et al., 2001; Fiedler, 2001; Forgas, 1995),

and process information centrally, rather than peripherally (Wegener, Petty, & Smith, 1995; Sinclair, Mark, & Clore, 1994; Bless, Mackie & Schwarz, 1992).

If moods influence information processing in individuals, they may also influence information processing in groups. To fully understand this process, however, it is important to understand that moods may operate differently in groups than in individuals. When people work individually, people rely on their own mood states to determine how they should proceed. But when people work in groups, people not only rely on their own mood states, they also rely on the mood states of others.

According to Fridja and Mesquita (1994), people often look to others to provide valuable information about the environment because another person's affective reactions to an event may be the best tool for determining the emotional potential of a situation. However, it may not be one's own feelings or even the feelings of another that provides the most information about the situation, but rather the interaction or match between one's own feeling state and another's. Indeed, Fridja and Mesquita (1994) note that an appraisal of the match between one's own feeling state and the feeling states of another allows one to gauge whether one's reactions to a situation conforms to or deviates from the norms of the group. If affective feelings and reactions are shared within a group of people, these shared feelings may serve to join the individuals together as a collective unit and coordinate the group members' actions (Anderson, Keltner, & John, 2003; Barsade, Ward, Turner, & Sonnenfeld, 2000; Frijda & Mesquita, 1994; Keltner & Haidt, 2001). But, if group members' affective feelings and reactions deviate from on another, this may actually separate individuals from one another and impede the group members

from coordinating their actions (Anderson et al., 2003; Barsade et al., 2000; Frijda & Mesquita, 1994).

Thus, I hypothesize that it is the valence of the mood state, as well as the shared experience of that mood state that will influence group-level information processing. Specifically, I predict that the valence of the mood state determines which strategy group members employ (i.e. generative versus cautious). But, it is the shared experience of that mood state that results in this strategy becoming the common strategy among group members. Indeed, when group members fail to share the same mood state (i.e. their moods are diverse from one another), I believe that group members will fail to develop a common processing strategy, and will instead engage in *satisficing*, a process in which group members discuss information only for as long as it takes for the members to reach a satisfactory, albeit potentially sub-optimal, solution. Therefore, I hypothesize the following:

Common Processing Strategy: The shared experience of positive moods will lead to a common generative processing strategy among group members, while the shared experience of negative moods will lead to a common cautious processing strategy among group members. In contrast, diverse moods will lead to satisficing on the task.

Group Processing

If shared positive moods lead to a *generative processing strategy* and shared negative moods lead to a *cautious processing strategy*, moods may have important consequences for how group members focus on and process information as a group.

Groups have an advantage over individuals because each member of a group can offer different skills, experiences, and information (Hinsz et al. 1997; Tindale & Kameda, 2000). But, to be effective, group members must combine their unique information into a comprehensive understanding of the problem in order to focus on the information most critical for success (Gruenfeld, Mannix, Williams, and Neale, 1996; Stasser & Stewart, 1992). Unfortunately, group members often do not use the critical information gleaned from the group discussion to make a decision, preferring instead to focus on information for which they all receive in common (Gruenfeld et al., 1996; Hinsz et al., 1997; Stasser, 1999; Stasser & Stewart, 1992; Stasser & Titus, 1985). This strategy occurs, in part, because other group members can easily confirm pieces of information that are held in common by all of the group members. Thus, this information may be perceived as safer and more reliable than the information that is uniquely held by only one group member (Gruenfeld et al., 1996; Stasser & Stewart, 1992; Stasser & Titus, 1985). Unfortunately, a focus on common information can result in an over reliance on potentially incorrect majority preferences (Davis, 1973; Gruenfeld et al., 1996; Hinsz et al., 1997; Stasser & Stewart, 1992; Stasser & Titus, 1985).

An example of how this common information bias can hinder group decision-making comes from an experiment by Stasser and Stewart (1992). Stasser and Stewart asked groups to complete a murder mystery task. In some groups, every member had access to all of the same evidence (the full information condition). In other groups, members had access to some of the same evidence, but also access to critical evidence that was given uniquely to them (the unique information condition). Stasser and Stewart

found that groups in the unique information condition performed less well than groups in the full information condition. This finding occurred because group members in the unique information condition failed to combine their unique evidence in order to focus on the evidence most critical for solving the problem. Instead, they focused on the information that they all received in common, which simply reinforced group members' incorrect initial preferences. Thus, in order for group members to have performed well on the task, group members had to focus on the unique, critical information that each group member could provide, rather than focusing on the common information and initial majority preferences (Stasser & Stewart, 1992; Stasser & Titus, 1985). Below I describe how positive, negative, and diverse moods might influence these processes.

Positive moods. If positive moods encourage a generative focus on information, then positive moods may help group members actively focus on and use a wide range of information when making a group decision. Several findings within the mood and information processing literature suggest that positive moods help individuals focus on unique, critical information. For instance, positive moods help individuals combine large amounts of information (Fredrickson, 2001) and quickly identify key pieces of information (Isen & Means, 1983). In addition, positive moods also seem to help individuals use that information, as positive moods help individuals integrate new information into one's own understanding (Estrada et al., 1997) and efficiently implement creative solutions to problems (Grawitch et al., 2003). If positive moods help individuals focus on and use a wide range information, then group members in positive moods may focus on the unique, critical information that each group member can

provide, in addition to the information that each group member receives in common. And, if group members are focusing on the critical information that each group member can provide, they should be more likely to use this information rather than the common information or majority preferences when making a decision.

Cautious processing strategy. In contrast, if negative moods encourage group members to use a cautious processing strategy, negative moods may result in group members focusing on the common information and majority preferences that exists within a group. Negative moods promote a sense that the world is problematic and that one should stick to known data and be wary of new ideas (Gasper, 2003; Gasper, 2004; Isen & Daubman, 1984; Murray, Sujan, Hirt, & Sujan, 1990). When people feel that a situation is problematic or uncertain, they tend to focus on information that is deemed relevant (Gasper & Bramesfeld, in press; Gasper & Bramesfeld, 2006; Trope, 1986), validates one's own understanding of the situation (Sorrentino & Short, 1986; Hodson & Sorrentino, 1997; Huber, 2003), and maintains clarity about what is known and accepted (Sorrentino & Short, 1986). Because the information that can be validated by the most group members may be the information that is perceived as most relevant, correct, or accurate (Stasser & Stewart, 1992; Stasser & Titus, 1985; Gruenfeld et al., 1996), group members in negative moods may be especially likely to focus on the information that group members receive in common rather than on information that is provided uniquely to the group members. As a consequence of this focus, the group discussion may reinforce, rather than refute, any incorrect majority preferences that exist within the group.

At first glance this premise that group members in negative moods rely on common information and majority preferences to make a group decision, rather than focusing on and using the unique, critical information that each group member can offer, may seem to contradict existing research on the influence of mood on information processing. After all, research on mood and information processing finds that individuals in negative moods often process information more systematically than those in positive moods (see Clore et al., 2001; Martin & Clore, 2001; Schwarz & Clore, 2003 for reviews). Thus the question arises: If individuals in negative moods engage in more thorough processing of information, wouldn't group members in negative moods also do so? To answer this question, it is important to keep in mind that group-level information processing is different from individual information. When working individually, people have access to all of the information and must decide individually which of it is relevant to the situation. In a group, however, any given group member may have access to different information than the other members of the group. Because group members are often privy to unique information, but can also make mistakes, it can be difficult to know whether to trust information that is uniquely held by only one group member. Thus, information that is commonly held by all of the group members, and therefore easily validated, may be perceived as more reliable and relevant than information that is uniquely held by only one group member (Gruenfeld et al., 1996; Stasser & Stewart, 1992; Stasser & Titus, 1985). If group members in negative moods are motivated to process information cautiously, then group members in negative moods may focus on the 'safe' common information, rather than on the unique information. As a consequence,

group members in negative moods may focus on common information that confirms initial majority preferences, even though the unique information may be more critical for solving the problem.

Satisficing strategy. While group members with shared positive moods may develop a common *generative* focus on the information, and group members with shared negative moods may develop a common *cautious* focus on the information, I believe that group members experiencing diverse mood states will fail to develop a common focus on the information. Instead they will engage in *satisficing*, a process in which group members discuss the information in a problem only for as long as it takes for the members to reach a satisfactory, albeit potentially sub-standard, solution to the problem (Janis & Mann, 1996).

This hypothesis is based on the premise that diverse feelings among group members inhibit group members from coordinating their actions (Anderson et al., 2003; Barsade et al., 2000; Frijda & Mesquita, 1994; Keltner & Haidt, 2001). Take for example a group in which two members are feeling positive and one is feeling negative. The two group members who are feeling positive should be inclined to focus on the unique information, while the group member that feels negative should be inclined to focus on the common information and majority preferences. In light of these conflicting strategies, the group members may fail to reach a common focus on the information. Yet, a group decision is still needed and group members may be motivated to discuss the task only for as long as it takes to reach a satisfactory solution to the problem. They may rely on quick decision schemes, such as majority wins, to make a decision. If diverse moods result in

satisficing more than shared positive or negative moods, then group members experiencing diverse moods should focus on the information less, and rely on initial majority preferences more, than group members with shared positive or negative moods.

Thus, as outlined in the Mood-as-Strategy Framework (Table 1, pg. 2), I hypothesize that positive moods result in a *generative* focus on information, negative moods result in a *cautious* focus on information, and diverse moods will result in *satisficing*. And, when it comes to group processing:

Focus on the unique, critical information: *Group members in positive moods will focus on the unique, critical information that each group member can offer more so than group members in negative moods. But, group members in diverse moods will focus on the unique, critical information less than group members in either shared positive or negative moods.*

Focus on the common information: Group members in negative moods will focus on the common information as much as group members in positive moods. But, group members in diverse moods will focus on the common information less than group members in either shared positive or negative moods.

Focus on majority preferences: Group members in positive moods will rely on initial majority preferences less than group members in negative moods. And, group members in diverse moods will rely on initial majority preferences more than group members in shared positive or shared negative moods.

Group Outcomes

Mood would be a particularly critical input factor if it influenced important group outcomes. I hypothesize that positive moods, more so than negative or diverse moods, alter two important outcomes: group performance and group consensus. Group performance is especially important to examine, as performance is often the outcome most valued by organizations (Hackman, 1987). Because I am interested in decision-making, I will be examining decision quality as the measure of group performance. The quality of a group's decision is of little consequence, however, if group members are not committed enough to the decision to actually implement it (Vroom & Jago, 1978). Thus, I will also be examining group members' private acceptance of the decision to examine whether group members reach a true consensus within their group. Below I discuss my predictions for each of these outcome variables.

Group Performance. If positive moods result in generative focus on information, negative moods result in a cautious focus on information, and diverse moods lead to satisficing, then positive moods should be more likely than negative or diverse moods to promote performance on tasks that require focusing on unique, critical information. A hidden profiles task (Stasser & Stewart, 1992; Stasser & Titus, 1985) is a perfect example of this type of task. In these tasks, group members are presented with a wide range of information and then asked to make a decision based on that information. The information is distributed to group members such that group members receive some of the same information in common, but also some information given uniquely to them. The

information that is commonly distributed to the group members is typically biased towards an incorrect answer, while the information that is uniquely distributed to the group members is the information that is most critical for solving the problem. Successful performance on the task requires focusing on the unique, critical information. If positive moods result in a greater focus on the unique, critical information than either negative or diverse moods, then I hypothesize that:

Group Performance: *Positive moods will lead to better performance than negative or diverse moods on tasks that require focusing on the unique, critical information (e.g. a hidden profiles task).*

Group Consensus. Group consensus occurs when the group discusses an issue until everyone in the group unanimously, and truly, agrees with the group decision (Forsyth, 2006). As mentioned previously, group members may not be committed to a group decision if they do not privately accept that decision as their own. If group members who hold a majority opinion within the group exert a strong influence on the other members of the group, then group members in a minority position within the group may eventually comply with the majority decision, even when they do not privately accept that decision as their own. In contrast, if group members focus on and use the unique, critical information that each group member can offer to make a group decision, then the group's decision should be based more on the information, rather than on initial preferences. If so, then group members may be more likely to accept the group decision as their own, regardless of whether they initially held a minority or majority position within the group. As such, I hypothesize that:

Group Consensus: Group members in positive moods will be more likely than group members in negative or diverse moods to reach a true group consensus, as evidenced by the fact that all of the group members report high acceptance of the decision, regardless of whether they were in an initial minority or majority position within the group.

Determining the Underlying Strategies and Processes

In the *Mood-as-Strategy Framework,* I differentiate between three processing strategies: a generative processing strategy, a cautious processing strategy, and a satisficing strategy. I believe that positive moods promote group performance more than negative moods because the *generative* focus of those in positive moods results in group members focusing on both the common information and the unique, critical information; while the *cautious* focus of those in negative moods results in group members focusing on the common information, but not on the unique, critical information. If true, then differences in the focus on the unique, critical information, but not differences in the focus on the common information, should explain the effects of mood on performance. Therefore, I hypothesize that focus on the critical information, but not focus on the common information, will mediate the effects of mood on performance.

There is an alternative explanation for the mood differences on performance, however. It is possible that positive moods influence group processing more than negative moods, not because of differences in generative versus cautious processing, but rather because positive moods simply lead to more effort on the task. For example, group

members in positive moods may simply like working in a group better than those in negative moods. Because of this extra "social facilitation" they focus on more of the information than group members in positive moods.

In support of this alternative hypothesis, a large literature suggests that positive moods facilitate social interactions more than negative moods. Positive moods, more than negative or neutral moods, promote sociability (Vittenngl & Holt, 1998; Clark & Watson, 1988; Cunningham, 1988a, 1988b), positive person-perception judgments (Baron, 1987; Schwarz & Clore, 1983; Forgas & Bower, 1987; Forgas, Bower, & Krantz, 1983; Forgas, 1990), prosocial behaviors (George, 1991; 1995; & 1998), and feelings of cohesion within a group (Lawler, Thye, & Yoon, 2000). If positive moods facilitate social interactions more than negative moods, group members in positive moods may simply exert more effort on the task than group members in negative moods. If true, then group members in positive moods should focus, overall, on the information more than group members in negative moods. For instance, in addition to focusing more on the unique, critical information, group members in positive moods should also focus more on the common information. And, this overall focus on the information (focus on the unique, critical information, as well as focus on the common information), rather than just the focus on the unique, critical information, should mediate the effects of mood on performance.

I do not make this prediction, however, because I do not believe that differences in liking of the other group members, or even in the amount of discussion, will in and of themselves, help group members process information or perform better on the task.

People could like working in a group because it provides enjoyable social contact and results in greater cohesion among group members. But these factors do not necessarily help people focus on the information that is most critical for optimal performance. Indeed, research suggests that feelings of cohesion and liking can actually hurt decision-making and performance if it results in group members focusing on the social relations within the group, rather than on the task (Dion, 2000).

In addition, the amount of discussion, in and of itself, does not seem to lead to better performance. For instance, it is possible for group members to actively engage in a discussion of biased or misleading information, which could hurt, rather than help performance. Consistent with this, Stasser and Stewart (1992) found that it was not necessarily focusing on more of the information that was important for success on the murder mystery task, but rather focusing on the unique, critical information.

Because no extant research has directly examined why moods influence group-level processing and performance, it is important to distinguish between these two competing explanations for the effects of mood on group-level information processing. I believe that positive moods lead to a generative focus on information that results in a focus on the unique, critical information, as well as the common information, while negative moods lead to a cautious focus on information that results in a focus on the common information, but not the unique, critical information. Therefore, group members in positive and negative moods should differ only in their focus on the unique, critical information. In fact, it is only when group members fail to share the same mood state that

they should fail to focus on either the unique, critical information or the common information.

In the current paper I will establish these key underlying processes by (1) manipulating generative versus cautious processing, (2) examining the extent to which differences in the focus on the unique, critical information, rather than differences in the focus on the common information, mediate the effects of positive and negative mood on performance, and (3) manipulating shared versus diverse moods. I discuss each of these contributions below.

Manipulation of Processing Strategies. One way to support the notion that positive and negative moods lead to generative versus cautious processing strategies, respectively, is to manipulate the focus of the discussion (i.e. a *generative* focus on the unique, critical information that each group member can offer versus a *cautious* focus on the safe, common ground that exists between group members). If positive moods lead to a *generative* focus on the information, then group members in positive moods should act akin to those who have been instructed to focus on the unique, critical information. Likewise, if negative moods lead to a *cautious* focus on the information, then group members in negative moods should act akin to those who have been instructed to focus on the safe, common ground that exists between group members. This experimental manipulation will contribute to the literature, because it will provide further support for the notion that positive moods produce similar outcomes as a generative focus on information, while negative moods produce similar outcomes as a cautious focus on information. I hypothesize that:

Processing Strategies: Group members in positive moods will act akin to those who have been instructed to focus on the unique, critical information that each group member can offer; while group members in negative moods will act akin to those who have been instructed to focus on safe, common group that exists between group members.

Mediation. In addition to directly manipulating focus of the discussion, I will also measure the focus of the discussion to examine whether differences in the focus on the unique, critical information, or differences in the overall focus on the information as predicted by the effort explanation (overall focus on the unique, critical information and common information), explain the effects of mood on performance. I hypothesize that:

Mediating Processes: Focus on the unique, critical information, but not focus on the common information, will mediate the effects of mood on group performance.

The role of shared moods. Lastly, to establish that shared moods lead to an overall greater focus on the information than diverse moods, I will manipulate shared positive and negative moods and compare these groups to groups in a mood-diverse control condition. I hypothesize that:

The role of shared moods: Regardless of mood valence, group members experiencing shared moods will focus on the common information and the unique information more than group members in the mood-diverse control condition.

Existing Support of the Mood-as-Strategy Framework

Although there has been little empirical research examining the role of moods in group-level information processing (for exceptions see Kelly & Spoor, 2004; Forgas, 1990; Grawitch et al., 2003), a recent study by Bramesfeld and Gasper (2006) provides initial support for the hypotheses presented in the *Mood-as-Strategy Framework*. In this study, fifty-eight men and fifty women watched a video clip to induce positive or negative moods. Participants then read the evidence in Stasser and Stewart's (1992) murder mystery task. Participants received either a complete version of the murder mystery (full information condition) or a hidden profiles version of the murder mystery (unique information condition). In the unique information condition, the evidence that was most critical for solving the case was uniquely distributed to the group members. After reading the case, participants discussed the case in groups of 3 and indicated whom they believed committed the murder. Participants then indicated how much their group focused on and used the critical evidence when making their decision.

We hypothesized and found that group members in positive moods were more likely than group members in negative moods to focus on and use the critical evidence within the case, ($M = 0.40$ vs. 0.18), $p < .01$. They were also less likely to rely on initial majority preferences when making a group decision, ($M = 36\%$ vs. 80%), $p = .01$. In addition, group members in positive moods were significantly more likely than group members in negative moods to choose the correct suspect ($M = 61\%$ vs. 22%), $p = .01$, and this finding was mediated by focus on the critical evidence. These effects held true,

regardless of whether group members received full or unique information, and even when controlling for initial preferences, suggesting that the results reflected a true group-level process, rather than an individual-level phenomenon.

These results provide initial support for the hypotheses outlined in the *Mood-as-Strategy Framework*. However, three key questions still remain: (a) What are the key mechanisms behind these findings? (b) Do these findings reflect the influence of mood at the group-level or at the individual-level? and (c) What is the role of shared moods in group-level information processing? Below I discuss how the current research will address each of these questions.

Key Contributions of the Current Research

What are the key mechanisms behind these findings?

One question that still remains unanswered by previous research is: What are the key mechanisms behind the influence of mood on group-level information processing? My previous research on this topic (Bramesfeld & Gasper, 2006) is promising because it establishes that moods influence group process and performance, but it does not directly test *why* moods influence these outcomes. In the *Mood-as-Strategy Framework*, I propose that moods influence group processing because the generative strategy of those in positive moods results in a focus on the unique, critical information, in addition to the common information, while the cautious strategy of those in negative moods results in a focus on the common information, but not the unique, critical information. As discussed

in the introduction, however, it is possible that differences in overall effort, rather than differences in processing strategies, explains the effects of mood on group performance. Because my past research did not directly manipulate or measure these processing strategies, it is difficult to identify the key mechanism behind the findings. Thus, in the current experiments, I attempted to further isolate the mechanism behind *why* moods influenced group processing and performance.

First, in Experiment 1, I manipulated focus of the discussion to demonstrate that group members in positive moods act akin to those who have been instructed to focus on the unique, critical information that each group member can provide, while group members in negative moods act akin to those who have been instructed to focus on the common ground between group members. Then, in Experiments 1 and 2, I measured both focus on the unique, critical information and focus on the common information to demonstrate that focus on the unique, critical information, rather than focus on the common information, mediates the effects of mood on performance.

Do the findings reflect the influence of mood at the group-level or individual-level?

Another key question that remains unanswered is whether the group process findings reflect a true group-level phenomenon. As discussed earlier in the introduction, a large literature has established that moods influence individual information processing. The purpose of the *Mood-as-Strategy Framework* is to make predictions about how moods will influence group-level information processing. Thus, it is important to

establish that moods influence group processing, above and beyond the influence of mood at the individual level.

My past research indicates that group members in positive moods performed well on the task, even when the information was uniquely distributed to group members, and even when controlling for initial preferences (Bramesfeld & Gasper, 2006). Thus, the study supports the notion that moods do influence group processing, above and beyond their influence on individual information processing. However, several limitations of the study made it difficult to fully parse apart the influence of mood on individual and group-level processing.

First, in my previous research, mood was manipulated prior to participants encoding the information. As such, the experiment examined how moods influenced both individual and group-level information processing. It is possible that differences in individual information processing, rather than differences in group-level information processing, explained the effects of mood on performance. I do not think this is the case, as moods still influenced group-level outcomes, even when the information was uniquely distributed to group members, and even when controlling for pre-group discussion preferences. Never the less, based on my past research, it is difficult to fully parse apart the effects of mood on individual and group level processing. I hypothesize that moods influence group processing and performance, independent of the effects of mood on individual information processing. If true, then moods should influence group process and performance in the same way, regardless of whether moods are manipulated prior to or after individuals encode the information. Thus, to test this notion, in Experiment 1, I

manipulated mood *before* group members read the evidence in the murder mystery (to replicate my prior research findings). But, in Experiment 2, I manipulated mood *after* group members read the evidence in the murder mystery. If Experiment 2 produces results analogous to those found in Experiment 1, I can feel confident that moods influence group processing and performance, independent of moods' influence on individual information processing.

Second, in my previous research, it was difficult to examine the effects of mood, above and beyond initial preferences, as performance was measured by the percent of groups that chose the correct suspect. This measure provided an overall picture of the group's final decision, but proved to be difficult to analyze. First, because of problems with empty or low cell counts, the results had to be interpreted with caution, as we often did not have the statistical power to detect significant differences in performance. Second, consistent with a large literature showing that groups are heavily influenced by the initial preferences of the group members (Davis, 1973; Gruenfeld et al., 1996; Stasser, 1999; Stasser & Stewart, 1992), group members' initial preferences played a large role in determining the group's decision. Through the use of binary logistic regressions, we were able to covariate out the effects of initial preferences to show that mood still predicted performance above and beyond these preferences. Still, the dichotomous nature of the dependent variable made it difficult to fully interpret these results. Thus, in the current experiments, I improved on the measure of performance by also including a continuous measure of guilt. This continuous measure of performance

will be more sensitive in detecting mood differences and allow for more freedom in

analyzing the effects of mood while controlling for group members' initial preferences.

What is the role of shared moods in group-level information processing?

In the current experiments, I also examined the role of shared moods in group-

level information processing. Recall that I propose that is the shared experience of

positive and negative affect that lead to a common processing strategy. Thus, in

Experiment 2, I manipulate shared positive and negative moods and compare these

groups to groups in a mood-diverse control condition. I hypothesize that, compared to

groups members in the shared mood conditions, group members in the mood diverse

control condition will fail to develop a common focus on the information, and will

instead engage in satisficing on the task. As a consequence, group members in diverse

moods will focus on information less, and majority preferences more, than group

members experiencing shared moods.

EXPERIMENT ONE

Overview and Hypotheses

Experiment 1 was designed to test the hypotheses outlined in the *Mood-as-*

Strategy Framework. The study included four experimental conditions: positive mood,

generative focus, negative mood, and cautious focus. At the beginning of the study,

participants in the positive and negative mood conditions watched a video clip designed

to induce positive and negative moods, respectively. Participants then read the evidence

in Stasser and Stewart's (1992) murder mystery case and discussed the case in groups of

three. Prior to discussing the case, group members in the generative focus and cautious

focus conditions received instructions to focus on the unique opinions and ideas that

group members could offer (generative focus) or focus on finding the safe, common

ground that existed between group members (cautious focus). I then measured focus on

the evidence (critical versus common), reliance on majority preferences, group

performance, and group consensus. Table 2 summarizes the predictions for the study.

TABLE 2: *Summary of predictions for Experiment 1*

Mood State	Strategy	Group Processing	Outcomes
Shared Positive	Generative	+ Focus on critical info + Focus on common info – Reliance on majority pref	+ Performance + Consensus
Shared Negative	Cautious	– Focus on critical info + Focus on common info + Reliance on majority pref	– Performance – Consensus

In general, I hypothesize that group members with shared positive moods will act

akin to those with a generative focus on the information, while group members with

shared negative moods will act akin to those with a cautious focus on the information. In

addition, group members in the generative focus and positive mood conditions should

focus on the unique, critical evidence, in addition to the common information, and should

rely less on initial majority preferences when making a group decision. In contrast, group

members in the cautious focus and negative mood conditions should focus on the

common information, rather than on the unique, critical evidence; and they should rely on

initial majority preferences more when making a group decision. As a consequence,

group members in the generative focus and positive mood conditions should perform

better on the task than group members in the cautious focus and negative mood

conditions, and they should be more successful at reaching a consensus regarding the

group decision. Finally, if focus on the critical evidence, rather than overall effort

explains the effects of mood on performance, focus on the critical evidence, but not focus

on the common evidence, should mediate the effects of mood on performance.

Method

Participants

Fifty-two men and 128 women (ages 18 to 26, $M = 18.5$) participated in the study

for partial course credit. Participants were selected from a participant pool comprised of

86% Caucasians, 6% Asians, 4% Hispanics, and 3% African Americans. All participants

worked in groups of 3 (15 groups per each of the 4 experimental conditions).

Materials and Procedure

Familiarity. Because prior familiarity with other group members can increase

performance on this task (Gruenfeld et al., 1996), participants rated on a 0 (*not at all*) to 3

(*very well*) scale how well they knew each of the other participants. These scores were

then averaged within each group to form a measure of familiarity.

Mood manipulation. To create momentary moods, participants watched a 6-minute video clip. In the positive mood condition, participants watched a scene from the comedy show *Saturday Night Live*. In the negative mood condition, participants watched a scene from the dramatic movie *Sophie's Choice*. To ensure that participants in all of the conditions participated in like-procedures, participants in the generative focus and cautious focus conditions watched a non-mood inducing video about foods of the Napa Valley. Participants then rated how happy, sad, certain, and uncertain they felt at the moment on a scale ranging from 1 (*not at all*) to 7 (*very much*).

The murder mystery task. Participants then read for 15 minutes a shortened version of Stasser and Stewart's (1992) murder mystery task, in which some of the nonessential filler text was removed. The complete version of the case includes 20 clues imbedded in a series of police interviews. Eight of the clues incriminate and 0 exonerate the correct suspect A, while 6 of the clues incriminate and 6 of the clues exonerate the two non-guilty suspects B and C. Participants received in common 11 of the clues (5 of the less critical pieces of evidence incriminating the correct suspect A, and the 6 pieces of evidence incriminating suspects B and C). The other 9 critical clues (three clues that incriminate the correct suspect A and all 6 of the clues that exonerate the non-guilty suspects B and C) were uniquely distributed to the group members such that each group member received 3 unique clues: one piece incriminating the correct suspect A, and two pieces exonerating the non-guilty suspects B and C. The 9 pieces of unique evidence, along with the 5 additional incriminating pieces of evidence regarding the correct suspect, made up the 14 unique, critical clues necessary for solving the case. The other 6

pieces of evidence that were biased towards the incorrect suspects made up the common pieces of evidence.

Initial preferences. After reading the case, participants indicated which one suspect they believed committed the murder.

Mood bolster. To bolster any moods that might have diminished while reading the case, participants wrote about the 'most memorable' moment in the video clip for one minute, then rated on a 1 (*not at all*) to 7 (*very much*) scale how positive and negative (reverse) they felt at the moment. Because these two items were correlated with the initial measures of happiness, sadness (reverse), certainty, and uncertainty (reverse), all 6 items were combined into one measure of positive affect ($\alpha = 0.75$).

Group instructions. Participants received instructions to deliberate the case as a group and decide on one suspect whom they all believed committed the murder. Group members in the generative and cautious focus conditions, who did not receive a mood manipulation, received the following additional focus instructions:

> *Generative Focus*: "Your group should focus on identifying the widest possible amount of information to use to make a decision. Good decision-making requires taking into consideration the position of others, but you should focus on information that brings up unique or disagreeing positions, rather than simply focusing on the information for which you can all easily reach agreement. As a group you should focus on the unique opinions that each group member can offer."

> *Cautious Focus*: "Your group should focus on arriving at a decision that is mutually satisfying to all the members of the group. Good decision making requires taking into consideration the position of others, but you should focus on information for which you can all easily reach agreement, rather than focusing on information that brings up unique or disagreeing positions. As a group, you should focus on finding the common ground between each of your group members."

Deliberation. Participants then deliberated the case in groups of three for 10 minutes, and made a decision about which one suspect they felt committed the murder.

Ratings of Guilt. After discussing the case, each group member rated the suspects' guilt on a 1 (*not at all*) to 7 (*very*) scale. The data for the correct suspect converged at the group-level (average r_{wg} = 0.72; ICC = 0.71)[1], so I averaged together group members' responses to create a group-level measure of guilt.

Group Consensus. To measure private acceptance of the group decision, participants indicated on a 1 (*not at all*) to 7 (*very much*) scale whether they agreed with the choice the group made; and whether they were confident that the group made the correct decision, r (180) = 0.66, $p < .001$.

Focus on the Evidence. To examine focus on the evidence, participants rated each of the 20 pieces of evidence on a 0 (*not at all*) to 10 (*very much so*) scale based on how much their group focused on and used that piece of evidence when making their group decision. These ratings were then aggregated to the group-level (average r_{wg} = 0.90; ICC = 0.50). The mean ratings for the critical evidence were averaged together (α = 0.81), and the mean ratings for the common evidence were averaged together (α = 0.76).

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[1] To examine whether the data converged at the group-level, I computed a measure of within-group agreement, r_{wg} (James, Demarre, & Wolfe, 1993) and an intraclass correlation (ICC, Bliese, 2000). The r_{wg} measure compares the within-group agreement of a group to a hypothesized null distribution. An average r_{wg} score of 0.70 or greater indicates that there is enough within-group agreement to justify aggregating the data to the group-level (Castro, 2002; James et al., 1993; Klein et al., 2000). The ICC (1) is a measure of interrater reliability that compares within-group and between-group variance. An ICC value of .12 or higher suggests that a group property is present (Bliese, 2000).

Instructions check. To make sure that the focus instructions (generative vs. cautious) were effective, participants indicated whether the given goal of their group was to focus on the unique opinions that each group member had to offer (coded as −1.0) or to focus on finding the common ground between each of the group members (coded as 1.0). Because participants in the positive and negative mood conditions did not receive any special instructions, participants could also indicate that they did not receive either instructional set (coded as 0).

Preliminary Analyses

Manipulation Checks

Mood Check. The mood manipulation and mood bolster created the desired mood states, $F(3, 176) = 34.59$, $p < .001$. Participants in the positive mood condition reported significantly more positive affect than those in the negative mood condition ($M = 5.48$ vs. 4.07, $SD = 0.58, 0.81$), $p < .001$, Cohen $d = 2.00$. Those in the generative focus ($M = 5.39$, $SD = 0.86$) and cautious focus ($M = 5.31$, $SD = 0.76$) conditions, who did not receive a positive or negative mood manipulation, tended to fall in between the positive and negative mood conditions, reporting significantly more positive affect than those in the negative mood condition, $p < .001$, Cohen's $d = 1.58$, but similar levels of positive affect to those in the positive mood condition, $p = .36$, Cohen's $d = -0.18$. The fact that those in the generative focus and cautious focus conditions experienced similar levels of affect as those in the positive mood condition is consistent with research suggesting that

people's self-reported baseline moods tend to be more positive than negative (Diener &

Diener, 1996).

Instructions Check. The instructions to create a generative focus or a cautious

focus were effective, $F(3, 176) = 6.32$, $p < .001$. Participants in the cautious focus

condition reported having received instructions to focus on finding the common ground

among group members more than those in the generative focus condition ($M = 0.76$ vs.

0.13, $SD = 0.57$, 0.92), $p < .001$, Cohen's $d = 0.82$. Group members in the positive mood

($M = 0.40$, $SD = 0.62$) and negative mood ($M = 0.51$, $SD = 0.59$) conditions, who did not

receive these instructions, fell in between the cautious focus, $p = .02$, Cohen's $d = 0.50$,

and generative focus, $p = .01$, Cohen's $d = -0.45$, conditions.

Group Composition.

Because the initial composition of the group could influence group process and

performance outcomes, I examined whether groups differed by condition in their age,

sex, prior familiarity with one another, and initial preferences for the correct suspect.

Groups did not differ by condition in their age, sex, prior familiarity with one another, or

in the number of group members that initially preferred the correct suspect, all $p's > .25$.

Results

To test the hypotheses proposed in the *Mood-as-Strategy Framework*, I examined

group performance (ratings of guilt), group process (focus on the critical evidence, focus

on the common evidence, and percent of groups that went along with an incorrect majority preferences), and group consensus (private acceptance of the group decision). Unless otherwise noted, the data were analyzed at the group-level, using a one-way ANOVA with four levels of the independent variable (generative focus, positive mood, cautious focus, and negative mood). Past research suggests that familiarity with other group members may affect outcomes on this task (Gruenfeld et al., 1996). This factor was not relevant to the key predictions, but because it could affect the outcomes, I controlled for it in all analyses. Table 3 displays the descriptive statistics for these measures (correlations and overall means and standard deviations/ or frequencies and cell sizes) and Table 4 displays the key findings for these analyses (presented as means and standard deviations/ frequencies and cell sizes).

TABLE 3. *Descriptive statistics for Experiment 1.*

Correlations:	1	2	3	4	5
1. *Ratings of guilt*	1.00				
2. *Focus on critical evidence*	0.26*	1.00			
3. *Focus on common evidence*	-0.39**	0.39**	1.00		
4. *Go w/incorrect majority*	-0.63**	-0.28*	0.19	1.00	
5. *Acceptance*	-0.10	0.01	-0.11	0.17*	1.00
Overall Mean	3.58	3.00	5.46	^39%	5.72
Standard Deviation	2.15	1.38	1.58	N=49	0.98

Note. $+ p \leq .10$, $* p \leq .05$, $**p \leq .01$. ^reported as a frequency, with N=the cell size

TABLE 4: *Summary of the key results for Experiment 1.*

Dependent Variables	Generative	Positive	Cautious	Negative
	Experimental Conditions			
Group Performance				
Ratings of guilt	3.54 (2.07)	5.22 (1.79)	2.59 (1.79)	2.96 (2.09)
Group Processes				
Focus on critical evidence	3.03 (1.20)	3.69 (1.30)	2.54 (1.43)	2.75 (1.44)
Focus on common evidence	5.91 (1.35)	5.52 (1.57)	5.13 (1.49)	5.30 (1.91)
Focus on Majority Preferences	15% (n=13)	18% (n=11)	55% (n=11)	64% (n=14)
Group Consensus				
Acceptance: majority position	5.58 (1.02)	5.68 (1.03)	6.18 (1.05)	5.97 (0.65)
Acceptance: minority Position	5.92 (0.86)	5.30 (1.06)	5.56 (0.97)	5.42 (0.92)

Processing Strategy

I first tested the hypothesis that group members in positive moods would act akin to those with a generative focus on the information, while group members in negative moods would act akin those with a cautious focus on the information. The hypothesis for the negative mood condition was fully supported. Group members in negative moods did not differ from group members with a cautious focus on their focus on critical evidence (Ms = 2.75 vs. 2.54), p = .68, focus on the common evidence (Ms = 5.30 vs. 5.13), p = .77, focus on majority preferences (*Frequencies* = 64% vs. 55%), p = .62, performance (Ms = 2.96 vs. 2.59), p = .62, or on acceptance (Ms = 5.87 vs. 5.70), p = .78.

The hypothesis for the positive mood condition was only partially supported. Group members in positive moods did not differ from group members with a generative focus on their focus on critical evidence (Ms = 3.69 vs. 3.03), p = .20, focus on the common evidence (Ms = 5.52 vs. 5.91), p = .52, focus on majority preferences (*Frequencies* = 18% vs. 15%), p = .86, or acceptance (Ms = 5.49 vs. 5.75), p = .20. But, group members in positive moods did assign significantly higher ratings of guilt for the

correct suspect than group members with a generative focus (*M*s = 3.54 vs. 5.22), *p* = .03. Thus, the hypothesis was supported for the group process measures, but not the group performance measure.

Having tested the assumption that group members in positive moods act akin to those with a generative focus and group members in negative moods act akin to those with a cautious focus, I next wanted to examine whether group members with a generative focus or positive moods processed information and performed differently than group members with a cautious focus or negative moods. Given that group members in negative moods acted akin to those with a cautious focus, and group members in positive moods acted akin to those with a generative focus on all measures except for the performance measure, in all analyses, expect for the performance analyses, I conducted planned contrasts comparing the generative focus/ positive mood conditions to the cautious focus/ negative mood conditions to test the key hypotheses. These contrasts are reported as the primary analysis, with the overall main effect of condition appearing in parentheses.

Group Performance

To test the hypotheses outlined in the *Mood-as-Strategy Framework*, I first examined group performance. I hypothesized that group members in the generative focus/ positive mood conditions would perform better than group members in the cautious focus/ negative mood conditions. However, because group members in the positive mood condition differed from group members in the generative focus condition, I did not

combine the generative focus and positive mood conditions and the cautious focus and negative mood conditions to test this hypothesis. Instead, I conducted one analysis comparing the positive mood condition to the negative mood condition and one analysis comparing the generative focus condition to the cautious focus condition.

First, I examined whether mood and focus influenced the frequency by which groups chose the correct suspect. Consistent with the mood hypothesis, binary logistic regressions revealed that group members in positive moods chose the correct suspect more frequently than group members in negative moods (67% vs. 20%), $B = 2.31$ (SE = 0.91), χ^2 (N = 30, df = 1) = 7.85, $p = .005$. To examine whether mood predicted performance, above and beyond group members' initial preferences, I also conducted the analysis again, controlling for the number of group members who initially preferred the correct suspect. Even when controlling for initial preferences, group members in positive moods still chose the correct suspect more frequently than group members in negative moods, $B = 2.05$ (SE = 1.01), χ^2 (N = 30, df = 1) = 4.68, $p = .03$ (see Table 5). In contrast, regardless of whether I controlled for initial preferences, $B = 0.02$ (SE = 0.87), χ^2 (N = 30, df = 1) = 0.01, $p = .98$, or not, $B = 0.32$ (SE = 0.80), χ^2 (N = 30, df = 1) = 0.16, $p = .69$, group members with a generative focus did not chose the correct suspect more frequently than group members in positive moods (33% vs. 27%).

TABLE 5. *Percent correct in Experiment 1, by initial preferences and condition.*

	# of group members initially preferring the correct suspect:				
	0	**1**	**2**	**3**	**TOTAL:**
Generative	33% (N=3)	25% (N=4)	29% (N=7)	50% (N=2)	**33% (N=15)**
Positive	33% (N=3)	71% (N=7)	75% (N=4)	100% (N=1)	**67% (N=15)**
Cautious	0% (N=3)	22% (N=9)	67% (N=3)	0% (N=0)	**27% (N=15)**
Negative	0% (N=6)	25% (N=8)	100% (N=1)	0% (N=0)	**20% (N=15)**
TOTAL:	**N=15**	**N=28**	**N=14**	**N=3**	**N=45**

These results must be interpreted with caution, however, as an examination of Table 5 reveals that when group members' initial preferences are taken into account, most of the cells have counts of less than 5, and several of the cells are empty.

Fortunately, I also had group members rate the guilt of the correct suspect. Because these responses converged at the group level (average r_{wg} = 0.72; ICC = 0.71), and there was an extremely high correlation between group members individuals ratings and group members' averaged responses, r (180) = 0.90, p < .001, I felt confident using group members' averaged responses as a measure of group performance. These data also supported the mood hypothesis, group members in the positive mood condition rated the correct suspect as guiltier than group members in the negative mood condition (Ms = 5.22 vs. 2.96), F (1, 55) = 9.87, p = .003, Cohen's d = 1.16. These results held even when controlling for the number of group members that initially preferred the correct suspect, mood: F (1, 54) = 6.39, p = .01 (main effect of condition: F (3, 55) = 5.05, p = .004). However, once again the focus hypothesis was not supported. Group members in the generative focus condition did not rate the correct suspect as guiltier than group members in the cautious focus condition (Ms = 3.54 vs. 2.59), F (1, 55) = 1.74, p = .19, Cohen's d

= 0.49 (main effect of condition: F (3, 55) = 5.10, p = .003; see Table 4; controlling for initial preferences: F (1, 54) = 0.47, p = .50). Thus, consistent with the mood hypothesis, group members in positive moods performed better on the task than group members in negative moods. But, contrary to the focus hypothesis, group members with a generative focus did not differ from group members with a cautious focus. I will discuss possible reasons for this discrepancy in the discussion section.

Group Process

I next examined whether a generative focus/ positive moods and a cautious focus/ negative moods influenced three process measures: focus on the critical evidence, focus on the common evidence, and reliance on majority preferences. I hypothesized that group members in the generative focus/ positive mood conditions would focus on the critical evidence more than group members in the cautious focus/ negative mood conditions, but there would be no differences in focus on the common evidence. I also hypothesized that group members in the cautious focus/ negative mood conditions would rely on initial majority preferences more than group members in the generative focus/ positive mood conditions. Because group members in positive moods did not differ from group members with a generative focus and group members in negative moods did not differ from group members with a cautious focus on any of these measures, I compared the generative focus/ positive mood conditions to the cautious focus/ negative mood conditions in these analyses.

Focus on the critical evidence. Consistent with hypotheses, group members in the generative focus/ positive mood conditions focused on the critical evidence significantly more than group members in the cautious focus/ negative mood conditions (Ms = 3.03, 3.69 vs. 2.54, 2.75), F (1, 55) = 4.13, $p < .05$, Cohen's $d = 0.53$ (main effect of condition: F (3, 55) = 1.98, p = .13; see Table 4).

Focus on the common evidence. Also, consistent with hypotheses, group members in the generative focus/ positive mood conditions did not differ from group members in the cautious focus/ negative mood conditions in their focus on the common evidence (Ms = 5.91, 5.52 vs. 5.13, 5.30), F (1, 55) = 1.45, $p = .23$, Cohen's $d = 0.32$ (main effect of condition: F (3, 55) = 0.66, p = .58; see Table 4).

Focus on Majority Preferences. To examine focus on majority preferences, I examined the percent of groups that went along with an incorrect majority preference. Consistent with hypotheses, a binary logistic regression revealed that when a majority preference existed within the group, groups in the cautious focus/ negative mood conditions were significantly more likely than groups in generative focus/ positive mood conditions to go along with an incorrect majority preference (Frequencies = 55%, 64% vs. 15%, 18%), $B = 2.02$ (0.68), $\chi 2$ (N = 49, df = 1) = 10.17, $p = .001$, Cohen's $d = 1.02$ (main effect of condition: $\chi 2$ (N = 49, df = 3) = 9.95, $p = .02$; see Table 4).

Mediating Processes

In the Mood-as-Strategy Framework, I hypothesize that group members in positive moods perform better on the task than group members in negative moods because positive moods promote a focus on critical evidence, in addition to common evidence, while negative moods promote a focus on common evidence, but not a focus on the critical evidence. If true, then focus on the critical evidence, but not focus on the common evidence, should mediate the effects of mood on performance. If, on the other hand, group members in positive moods perform better than group members in negative moods simply because group members in positive moods exert overall more effort on the task, then both a focus on the critical evidence, and a focus on the common evidence should positively mediate the effects of mood on performance.

To test these hypotheses, I conducted a mediation analysis (see Figure 1) using the procedures outlined by Baron & Kenny (1986). In all analyses, I controlled for prior familiarity with the other group members, as well as the number of group members that initially preferred the correct suspect. To test the mediation hypothesis, I compared positive moods to negative moods, rather than comparing the positive mood/ generative focus condition to the negative mood/ cautious focus condition. I did this because group members in positive moods differed significantly from group members with a generative focus on the performance measure; thus I did not feel comfortable combining the two conditions for the mediation analyses. In addition, group members in positive moods performed better than group members in negative moods on the performance measure, whereas group members with a generative focus did not differ from group members with

a cautious focus. Because the performance differences occurred in the mood conditions, rather than the focus conditions, I included only the mood conditions in the mediation analyses.

First, I established that mood predicted ratings of guilt for the correct suspect (e.g. performance), $\beta = 0.38$, $t = 2.48$, $p = .02$. Then, I established that mood influenced focus on the critical evidence, $\beta = 0.46$, $t = 2.55$, $p = .02$, but not focus on the common evidence, $\beta = 0.25$, $t = 1.32$, $p = .20$. Finally, I established that when mood, focus on the critical evidence, and focus on the common evidence were used as simultaneous predictors of performance, the effects of mood on guilt were attenuated, $\beta = 0.28$, $t = 1.87$, $p = .07$, as a result of focus on the critical evidence, $\beta = 0.55$, $t = 2.83$, $p = .009$, Sobel test of mediation, $Z = 1.89$, $p = .06$, but not as a result of focus on the common evidence, $\beta = -0.55$, $t = -3.10$, $p = .005$, Sobel test of mediation, $Z = 1.21$, $p = .22$ (see Figure 1).

FIGURE 1: *Mediation Analysis for Experiment 1*

Total Effect = 0.38*
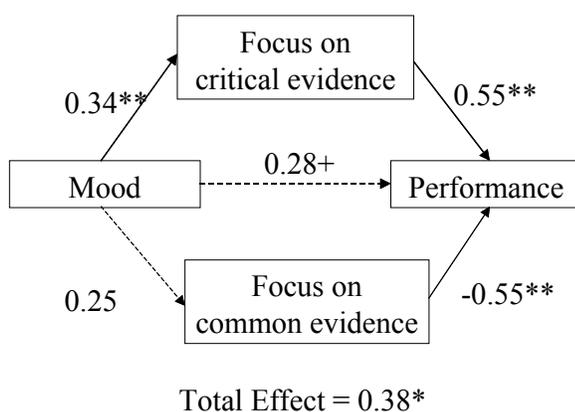
Thus, consistent with the *Mood-as-Strategy Framework*, focus on the critical evidence, rather than the common evidence, mediated the effects of mood on performance. These results suggest that group members in positive moods did not perform better than group members in negative simply because they exerted more effort on the task. Indeed, if this had been the case then mood would have predicted both focus on the critical evidence and focus on the common evidence, and both focus on the critical evidence, as well as focus on the common evidence, would have positively predicted performance. In contrast to this pattern of results, only focus on the critical evidence mediated the effects of mood on performance for mood did not even predict focus on the common evidence, making a test of mediation impossible. Thus the results suggest that differences in the focus on the discussion, rather than overall effort on the task, explained the effects of mood on performance.

Group Consensus

I also hypothesized that group members in the generative focus/ positive mood conditions would report high levels of private acceptance of the group decision, regardless of whether they were in a minority or majority position within the group. But, group members in the cautious focus/ negative mood conditions would report significantly higher acceptance of the group decision when in a majority, rather than a minority, position within the group. These predictions were tested at the individual level

using a condition (generative, positive, cautious, negative) by majority status (majority,

minority) ANOVA.

The results revealed the predicted interaction between condition and majority

status, F (3, 172) = 2.91, p = .04 (see Table 4). Regardless of whether participants were in

a majority or minority position within the group, group members in the generative focus

(M = 5.58 vs. 5.92), p = .20, Cohen's d = -0.35, and positive mood (M = 5.68 vs. 5.30), p

= .18, Cohen's d = 0.36, conditions reported high levels of acceptance of the group

decision. In contrast, group members in the cautious focus (M = 6.18 vs. 5.56), p = .05,

Cohen's d = 0.61, and negative mood (M = 5.97 vs. 5.42), p = .03, Cohen's d = 0.73,

conditions reported significantly higher levels of acceptance when in a majority position

than in a minority position within the group (main effect of condition: F (1, 172) = 1.02,

p = .32; main effect of majority position: F (1, 172) = 3.64, p = .06). Thus, group

members with a generative focus and positive moods reached true consensus, whereas

group members with a cautious focus and negative moods did not.

Discussion

Overall, the results support the *Mood-as-Strategy Framework*. Group members

with a generative focus and positive moods focused on the critical evidence, in addition

to the common evidence, and did not rely on initial majority preferences when making a

group decision. In contrast, group members with a cautious focus and negative moods

focused on the common evidence, but not the critical evidence, and relied heavily on

initial majority preferences when making a group decision. Importantly, these differences in focus on the unique, critical evidence explained why group members in positive moods performed better than group members in negative moods. The results of Experiment 1 are important as they establish that differences in focus on the critical information, rather than overall effort (focus on the critical evidence and the common evidence), explain the effects of mood on performance. Thus consistent with the *Mood-as-Strategy Framework*, moods influence group performance because they influence the degree to which group members focus on the unique, critical information that each group member can provide.

This experiment also provides important support for the notion that moods influence group processing, above and beyond the effects of mood on individual information processing. A large literature shows that moods influence information processing in individuals (see Martin & Clore, 2001 for reviews). The current experiment helps to establish that moods also uniquely influence group-level processing. First, even though the critical evidence was uniquely distributed to group members, group members with a generative focus and positive moods focused on the critical evidence more than group members with a cautious focus and negative moods. Because group members had to discuss their unique information as a group in order to identify and focus on the critical evidence, the results support the premise that moods influenced group-level processing.

Moods also predicted performance, above and beyond the effects of mood on individual information processing. I found that, even when controlling for initial preferences, group members in positive moods chose the correct suspect more and rated the correct suspect as guiltier than group members in negative moods. Thus, the current

experiment supports the hypothesis that moods influence group-level processing, above and beyond moods influence on individual information processing. Never the less, because mood was manipulated prior to group members encoding the information, I could not fully parse apart the effects of mood on individual and group level information processing.

Thus, Experiment 2 was designed to build on the findings of Experiment 1 to further establish that moods influence group level processing. In Experiment 2, I provided a more direct test of the notion that moods uniquely influence group-level processing by manipulating mood after group members read the information in the case, but before they discussed the task as a group. Because moods are manipulated *after* participants encode the information, mood should not influence the individual processing of the information. Therefore, any mood differences that occur should occur because of processing differences at the group level. As such, if the results of Experiment 2 replicate the results of Experiment 1, then I can feel confident that moods influence group process and performance independent of the effects of mood on individual information processing.

Experiment 2 also builds on Experiment 1 by further examining the hypothesis that shared positive moods lead to a generative focus on information, while shared negative moods lead to a cautious focus on information. In Experiment 1, I examined this issue by testing the hypothesis that group members with shared positive moods act akin to those with a generative focus on the information, while group members with shared

negative moods act akin to those with a cautious focus on the information. But these hypotheses were only partially supported and must be interpreted with caution.

While group members in positive moods acted akin to those with a generative focus on the process measures, group members in positive moods actually performed better than group members with a generative focus on the performance measures. This performance finding might have occurred because positive moods may be more effective than verbal instructions at creating a generative processing strategy. Research on the common information bias finds that giving people verbal or written instructions to focus on the unique information may not be enough to overcome the common information bias (Hinsz et al., 1997; Stasser & Stewart, 1992). To examine the possibility that the mood manipulation was more effective than the instructional sets at altering group performance and process, I conducted new contrast analyses in which I directly compared the positive mood condition to the negative mood condition, and the generative focus condition to the cautious focus condition. If the mood manipulation created stronger processing differences than the instructional set, then the differences should be stronger in the mood conditions than in the focus conditions.

Consistent with this idea, compared to group members in negative moods, group members in positive moods performed better on the task, $p = .003$, Cohen's $d = 1.16$, focused on the critical evidence more, $p = .06$, Cohen's $d = 0.69$, and focused on majority preferences less, $p = .02$, Cohen's $d = 1.04$. In contrast, group members with a generative focus differed from group members with a cautious focus only on their focus on majority preferences, $p = .04$, Cohen's $d = 0.91$; but not in their performance performance, $p = .19$,

Cohen's $d = 0.49$, or in their focus on the critical evidence, $p = .33$, Cohen's $d = 0.37$. Thus, the mood manipulation created stronger processing and performance differences than the focus conditions.

Given these results, it is possible that the mood manipulation was more successful than the focus manipulation because the *experiential* urge to use a generative processing strategy created by positive moods is a stronger motivator than simply being told to use a generative processing strategy. If true, then the results suggest that mood may be a particularly important variable, as it may be more effective than instructional sets at changing group behavior. Never the less, if the verbal instructions were ineffective at creating a generative versus cautious focus on the information, then, based on the current results, it is difficult to conclude that group members in positive moods act akin to those with a generative focus, while group members in negative moods act akin to those with a cautious focus. Thus, in Experiment 2, I used a different approach to demonstrate that shared positive moods lead to a generative focus on information, while shared negative moods lead to a cautious focus on information.

I reasoned that if it is the *shared* experience of positive and negative moods that causes a *common* focus on the information then group members who do not share the same mood state should fail to develop a common focus on the information. To test this hypothesis, in Experiment 2, I manipulated the extent to which group members experienced shared positive and negative moods and compared these conditions to a condition in which group members did not receive a mood manipulation. Because people's baseline mood states tend to vary between people, group members in the control

condition should experience more diversity in their mood states then group members in the positive or negative mood conditions. I chose to use a control condition as the comparison group, rather than directly creating a mood diverse group, because I want to demonstrate that even subtle and naturally occurring levels of mood diversity are enough to negate the positive effects of shared moods on performance. Indeed, I hypothesize that group members in the diverse mood control condition will be more likely than group members in either the shared positive or shared negative mood condition to engage in a strategy of *satisficing*.

I hypothesize that it is the shared experience of affect that leads to a common focus on the information. If so, then when group members fail to share the same mood state (i.e. their mood states are diverse), they should also fail to develop a common focus on the information. As a consequence, these group members may engage in *satisficing* by relying on initial majority preferences to make decision, rather than on the information that can be gleaned from the group discussion. This hypothesis is based on research that suggests that, at least initially, diversity can be detrimental to a group if it causes individuals to feel uncomfortable around one another (Harrison, Price, & Bell, 1998; Milliken & Martins, 1996). Indeed, Barsade and colleagues (2000) found that groups whose members experienced diverse levels of trait positive affect experienced more conflict and less cooperation than groups whose members experienced shared levels of positive affect. If group members' diverse moods cause them to feel uncomfortable around one, group members may be motivated to discuss the task only for as long as it takes to reach a satisfactory solution. For instance, research suggests that group members

who feel uncomfortable with one another are less likely to actively discuss information (Edmondson, 1999; Gruenfeld et al., 1996) and more likely to rely on quick decision strategies, such as a majority-wins decision rule (Gruenfeld et al., 1996). Thus, group members experiencing diverse moods should engage in satisficing more than group members with shared moods, as evidenced by the fact that they focus on the information less than, and majority preferences more than, group members with shared positive or negative moods.

Although no experiments have directly examined this hypothesis within an information processing or hidden profiles paradigm, two experiments by Bramesfeld and Gasper (2005) provide initial support for the idea that diverse moods lead to satisficing. In these experiments, we manipulated mood in four person groups, such that all four people received a positive mood manipulation (shared positive), all four people received a negative mood manipulation (shared negative), or two people received a positive mood manipulation and two people received a negative mood manipulation (diverse mood condition). Then group members worked on a moon survival task, Hall (1971) study 1, or the full information version of Stasser & Stewart's (1992) murder mystery task, study 2. In each study, we measured the total amount of time spent working on the task and group performance. Across both studies, group members in diverse moods tended to discuss the task for less time than group members in the shared mood conditions, and they tended to perform worse on the task.

These studies provide initial support for the idea that group members with diverse moods work on the task for less time than group members with shared moods. In

addition, the results suggest that this reduced focus on the task may have had important consequences for performance. In Experiment 2, I build on this prior work by examining whether naturally occurring diverse moods also influence group processing and processing. I hypothesize that group members in the diverse mood control condition will focus on the information less, and majority preferences more, than group members with shared positive or negative moods, and as a consequence, will perform poorly on the task and fail to reach a group consensus.

These hypotheses are particularly interesting in light of the *Mood-as-Strategy Framework*, as they suggest that both shared negative moods and diverse moods will lead to poor performance outcomes. However, the process by which groups come to perform poorly will differ. Group members with shared negative moods should perform poorly on the task because they are focused on the common information and the initial majority preferences that exist within the group, rather than on the critical evidence. In contrast, group members in diverse moods should perform poorly on the task because they fail to focus on either the common or critical information, and they rely on initial majority preferences as a means of satisficing. If true, then even though shared negative moods and diverse moods should produce similar performance outcomes, group members with shared negative moods should still be more focused on the information, and less focused on majority preferences, than group members in diverse moods. Experiment 2 tests these hypotheses.

Finally, Experiment 2 also builds on Experiment 1 by improving on the group process and outcome measures. Specifically, to better measure focus on majority

preferences, I included a self-report measure of majority influence. To better measure

initial preferences, I had group members indicate their initial ratings of guilt for each of

the suspects. I also improved on the measure of group performance by having participants

rate the correct suspects' opportunity, as well as guilt. To better measure group

consensus, I included additional questions asking group members whether they truly

agreed with the group decision or simply complied with the group decision, even though

they did not truly agree with it. Finally, I also measured the total amount of time spent on

the task. If group members in diverse moods engage in satisficing, then they should not

only focus on the information less and majority preferences more than group members

with shared moods, they should also work on the task for less time.

EXPERIMENT TWO

Overview and Hypotheses

Experiment 2 was designed to test three important aspects of the *Mood-as-Strategy Framework*. First, Experiment 2 was designed to better isolate the effects of

mood on group-level information processing. To accomplish this goal, I manipulated

mood after group members processed the information individually, but before group

members discussed the information as a group. I hypothesize that even when moods are

manipulated after participants encode the information, moods will still influence group

process and performance in the same was as they did in Experiment 1 (when mood was

manipulated prior to group members encoding the information). Second, Experiment 2

was designed to test the role of shared moods in group-level information processing. To examine shared moods, I manipulated shared positive and negative moods and compared them to a mood diverse control condition. I hypothesize that regardless of valence, group members with shared moods will focus on the information more and on majority preferences less than group members in the diverse mood control condition. In addition, group members in the shared mood conditions should work on the task for more time than group members in the diverse mood control condition. Finally, Experiment 2 was designed to replicate the mediation findings of Experiment 1. I hypothesize that, consistent with the results of Experiment 1, differences in focus on the critical evidence, but not the common evidence, will mediate the effects of moods on group performance. Table 6 summarizes my predictions.

TABLE 6: Summary of predictions for Experiment 2.

Mood State	Strategy	Group Processing	Outcomes
Shared Positive	Generative	+ Focus on critical info + Focus on common info – Reliance on majority pref + Time spent on task	+ Performance + Consensus
Shared Negative	Cautious	– Focus on critical info + Focus on common info + Reliance on majority pref + Time spent on task	– Performance – Consensus
Diverse	Satisficing	– Focus on critical info – Focus on common info + Reliance on majority pref – Time spent on task	– Performance – Consensus

Specifically, I hypothesize that shared positive moods will result in a *generative* focus on information, characterized by a focus on the unique, critical evidence, in addition to the common evidence. In contrast, shared negative moods result in a *cautious* focus on information, characterized by a focus on the common evidence and majority preferences, but not the unique evidence. As a consequence, group members in positive moods should perform better on the task than group members in negative moods, and they should be more successful at reaching a consensus regarding the group decision. Finally, group members in diverse moods will engage in *satisficing*, as evidenced by their failure to focus on the either the critical or common information, their over reliance on initial majority preferences to make a decision, and their failure to work on the task for a long amount of time. As a consequence, group members in diverse moods should perform poorly on the task and fail to reach a consensus regarding the group decision.

These hypotheses are particularly interesting, as they suggest that group members in diverse moods will operate like group members in negative moods when it comes to performance and consensus outcomes, but group members in diverse moods will engage in less group processing (i.e. focus on the critical evidence, focus on the common evidence, reliance on majority preferences, and total time spent on the task) than group members in either shared positive or negative moods.

Method

Participants

Fifty-six men and seventy-three women (ages 18 to 23, $M = 18.9$) participated in the study for partial course credit. Participants were selected from a participant pool comprised of 86% Caucasians, 6% Asians, 4% Hispanics, and 3% African Americans. There were 43 groups, each composed of 3 students (14 in the positive mood condition, 14 in the negative mood condition, and 15 in the diverse mood control condition).

Materials and Procedure

Familiarity. Because prior familiarity with other group members can increase performance on this task (Gruenfeld et al., 1996), participants rated on a 0 (*not at all*) to 3 (*very well*) scale how well they knew each of the other participants. These scores were then averaged within each group to form a measure of familiarity.

The murder mystery task. Participants then read for 15 minutes the shortened version of Stasser and Stewart's (1992) hidden profiles murder mystery task.

Initial Preferences. After reading the case, participants indicated whom they believe committed the murder, and they rated each suspect's guilt on a 1 (*not at all*) to 7 (*very much*) scale. To form a measure of initial ratings of guilt, ratings of guilt for the correct suspect were averaged together within each group.

Mood manipulation. To create momentary moods, participants watched a 6-minute video clip. In the positive mood condition, participants watched the *Saturday*

Night Live clip. In the negative mood condition, participants watched the *Sophie's Choice* clip. Because I wanted to compare the positive and negative mood groups to a group with natural levels of mood-diversity, participants in the diverse-mood control condition watched a non-mood-inducing video on the Napa Valley[2]. Because people tend to vary in their day-to-day mood states, participants in this condition were expected to experience mood states that were somewhat diverse from one another.

Afterwards, participants rated, as part of a filler media questionnaire, how happy and sad (reverse) they felt on a 1 (*not at all*) to 7 (*very much*) scale. They also rated on the same scale how positive, negative (reverse), glad, sad (reverse), happy, unhappy (reverse), and pleasant they felt right now, at the moment. These 9 items were then combined to create one measure of positive affect ($\alpha = 0.94$).

Deliberation and Time Discussed. Participants then deliberated the case in groups of three for up to 10 minutes. Each group made a decision about which one suspect they felt committed the murder. The actual amount of time (in seconds) that group members deliberated the case was recorded.

Ratings of Guilt. After discussing the case, each group member rated the suspects' guilt and opportunity on a 1 (*not at all*) to 7 (*very*) scale. The ratings for the correct suspect were then aggregated to the group level (average $r_{wg} = 0.68$; ICC $= 0.32$) and averaged together, $r(43) = 0.62$, $p < .001$.

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[2] It is important to note that even though group members in the diverse mood control condition watched the same video clip as those in generative and cautious focus conditions in Experiment 1, the diverse mood condition differs fundamentally from these other conditions, as group members in the diverse mood condition do not later receive special instructions that would create a common group processing goal.

Group Consensus. To measure private acceptance of the group decision, participants rated 2 items a 1 (*not at all*) to 7 (*very much*) scale (I agree with the choice the group made; I do not agree with the choice the group made). Group members also rated 5 items on the extent to which they simply complied with the group decision (I expressed agreement with the group decision even though I did not really believe that this was the best decision; I agreed to go along with the group decision just to avoid creating controversy; I agreed to go along with the group decision because the other group members outnumbered me; I agreed to go along with the group decision just to finish the group discussion; I expressed neither agreement nor disagreement with the group decision). Because these items were all highly correlated, I reverse scored all but the first item, and then combined the 7 items to create one measure of true acceptance ($\alpha = 0.86$).

Focus on the evidence. For each of the 20 pieces of evidence, participants rated on a 0 (*not at all*) to 7 (*very much so*) scale how much their group focused on and valued that piece of evidence when making a group decision. These ratings were then aggregated to the group-level (average $r_{wg} = 0.91$, ICC $= 0.54$). The mean ratings for the critical evidence were averaged together ($\alpha = 0.76$), and the mean ratings for the common evidence were averaged together ($\alpha = 0.73$).

Reliance on Majority preferences. Focus on majority preferences was measured with 5 items rated on a 1 (*not at all*) to 7 (*very*) scale (i.e. The initial preferences of our group members played a large role in our group's final decision; Because most people in the group were in agreement from the beginning, it was easy to make a group decision; I felt like I could disagree with the group (reverse); I voiced my disagreement with the

group decision (reverse); I felt like I made a difference in this group (reverse)). These items were then aggregated to the group level (average r_{wg} = 0.79, ICC = 0.35) and combined (α = 0.75).

Preliminary Analyses

Manipulation Checks

Mood Check. The mood manipulation created the desired mood states, F (2, 126) = 19.29, $p < .001$. Participants in the positive mood condition felt significantly more positive than those in the negative mood condition (M = 5.38 vs. 4.04, SD = 0.75, 1.10), $p < .001$, Cohen's d = 1.42, with those in the diverse mood condition (M = 5.07, SD = 1.20) tending to fall in between the positive mood, p = .16, Cohen's d = -0.31, and negative mood, $p < .001$, Cohen's d = 0.89, conditions.

Shared Affect. I also wanted to examine whether group members in the positive and negative mood conditions experienced more shared affect than those in the diverse mood condition. To examine this, I calculated two measures: the amount of deviation that occurred on the affect measure in each group (within group SD), and the amount of agreement that existed in each group based on group members' ratings of affect (average r_{wg}). The manipulation was successful at creating the desired levels of shared affect. Group members in diverse moods reported more deviation (within group SD = 1.47 vs. 0.82), $p < .001$, Cohen's d = 1.46, and less agreement (average r_{wg} = 0.61 vs. 0.96), p = .001, Cohen's d = 1.13, than those in positive moods; and more deviation (within group

SD = 1.47 vs. 1.20), p = .07, Cohen's d = 0.62, and less agreement (average r_{wg} = 0.61 vs.

0.90), p = .004, Cohen's d = 0.92, than those in negative moods (main effect of mood on

deviation scores: $F (2, 40)$ = 10.08, $p < .001$; main effect of mood on agreement: $F (2,$

$40)$ = 7.81, p = .001).

Group Composition

Because the initial composition of the group could influence group process and

performance outcomes, I examined whether groups differed by condition in their age,

sex, prior familiarity with one another, initial preferences for the correct suspect, and

their initial ratings of guilt for the correct suspect. Groups did not differ by condition in

their age, sex, prior familiarity, in the number of group members that initially preferred

the correct suspect, or in their initial ratings of guilt for the correct suspect, all *p's* > .45.

Results

To test the hypotheses proposed in the *Mood-as-Strategy Framework*, I examined

group performance (i.e. ratings of guilt), group process (i.e. focus on the critical

evidence, focus on the common evidence, the percent of groups that went along with an

incorrect majority preference, self reported majority influence, and the total amount of

time spent on the task), and group consensus (private acceptance of the group decision).

Table 7 displays the descriptive statistics (correlations and overall means and standard

deviations/ frequencies and cell sizes) for these key variables.

TABLE 7. *Descriptive statistics for Experiment 2.*

Correlations:	1	2	3	4	5	6	7
1. *Ratings of guilt*	1.00						
2. *Focus on critical evid*	0.49**	1.00					
3. *Focus on common evid*	0.06	0.53**	1.00				
4. *Go w/ incorrect majority*	-0.28+	-0.27+	-.08	1.00			
5. *SR majority influence*	-0.36*	-0.70**	-0.58**	0.48**	1.00		
6. *Time spent on task*	0.46**	0.71**	0.74**	-0.34**	-0.68**	1.00	
7. *Acceptance*	-0.14	-0.01	0.05	0.01	0.07	-0.11	1.00
Overall Mean	4.48	1.01	2.82	^70%	4.00	197s	6.07
Standard Deviation	1.02	0.95	1.46	N=37	0.96	136s	1.05

Note. $+ p \leq .10$, $* p \leq .05$, $**p \leq .01$.   ^reported as a frequency, with N=the cell size

Unless otherwise noted, data were analyzed at the group-level, using a one-way ANOVA with three levels of the independent variable (positive mood, negative mood, and diverse mood). Like in Experiment 1, in all analyses, I controlled for prior familiarity with the other group members. Table 8 summarizes the key results (presented by means and standard deviations/ frequencies and cell sizes).

TABLE 8: *Summary of the key results for Experiment 2.*

Descriptive Statistics:	Positive	Negative	Diverse
Group Performance			
Ratings of Guilt	4.89 (0.99)	4.24 (1.02)	4.31 (1.04)
Group Processes			
Focus on the critical evidence	1.58 (1.11)	1.05 (0.81)	0.44 (0.58)
Focus on the common evidence	3.33 (1.36)	3.19 (1.58)	2.00 (1.14)
% going with incorrect majority	64% (n=11)	75% (n=12)	71% (n=14)
Self-reported majority influence	3.38 (1.00)	4.06 (0.97)	5.53 (0.62)
Time spent on task (in seconds)	263 (169)	200 (113)	134 (101)
Group Consensus			
Acceptance: majority position	6.18 (1.03)	6.48 (0.76)	6.46 (0.58)
Acceptance: minority Position	5.97 (0.92)	5.34 (1.38)	5.01 (1.24)

Group Performance

      To test the hypotheses outlined in the Mood-as-Strategy Framework, I first examined group performance. I predicted that group members in positive moods would perform better than group members in negative or diverse moods. To examine this hypothesis, I first examined whether mood influenced the frequency by which groups chose the correct suspect. Controlling for the number of group members that initially preferred the correct suspect, mood did not influence whether groups chose the correct suspect, χ^2 (N = 43, df = 2) = 0.99, p > .60 (see Table 9).

TABLE 9. *Percent correct in Experiment 2, by initial preferences and condition.*

	# of group members initially preferring the correct suspect:				
	0	**1**	**2**	**3**	**TOTAL:**
Positive Mood	0% (N=9)	33% (N=3)	50% (N=2)	0% (N=0)	**14% (N=14)**
Negative Mood	0% (N=8)	33% (N=6)	0% (N=0)	0% (N=0)	**14% (N=14)**
Diverse Mood	0% (N=8)	50% (N=4)	33% (N=3)	0% (N=0)	**27% (N=15)**
TOTAL:	**N=25**	**N=13**	**N=5**	**N=0**	**N=43**

      These results must be interpreted with caution, however, as an examination of Table 9 reveals that a third of the cells are empty. In addition, Table 9 reveals that across the conditions, groups were predominantly biased against the correct suspect, as 88% of the groups had one or fewer group members that preferred the correct suspect. This overwhelming bias against the correct suspect could explain why mood did not influence whether groups chose the correct suspect.

Fortunately, I also had group members rate the guilt of the correct suspect. When controlling for group members' initial ratings of guilt, mood tended to influence ratings of guilt, $F(2, 38) = 2.65$, $p = .08$ (see Table 8). Consistent with hypotheses, group members in positive moods gave significantly higher guilt ratings for the correct suspect than group members in negative moods ($M = 4.89$ vs. 4.24), $p = .04$, Cohen's $d = 0.65$, or diverse moods ($M = 4.89$ vs. 4.31), $p = .07$, Cohen's $d = 0.66$. There were no differences between the negative mood and diverse mood conditions (4.24 vs. 4.31), $p > .80$, Cohen's $d = -0.07$. Thus, consistent with hypotheses, group members in positive moods performed better on the task than group members in negative or diverse moods.

Group Process

To examine why positive moods promoted group performance more than negative moods, I next examined the group process measures. I examined focus on the critical evidence, focus on the common evidence, reliance on majority preferences, and the total amount of time spent discussing the task. I hypothesized that group members in positive moods would focus on the critical evidence more than group members in negative moods, but group members in positive and negative moods would not differ in their focus on the common evidence. In addition, group members in positive moods would rely on incorrect majority preferences less than group members in negative moods. I did not expect differences between the positive and negative mood conditions on the total amount of time spent on the task. In addition, I hypothesized that, regardless of mood valence, group members in diverse moods would focus on the critical evidence less, focus on the

common evidence less, rely on initial majority preferences more, and work on the task for less time than group members with shared moods.

Focus on the Critical Evidence. Consistent with hypotheses, mood influenced focus on the critical evidence, F (2, 39) = 6.72, p = .003 (see Table 8). Group members in positive moods tended to focus on the critical evidence more than group members in negative moods (*M*s = 1.58 vs. 1.05), p = .10, Cohen's d = 0.55. And, group members in diverse moods focused on the critical evidence significantly less than group members in positive moods (*M*s = 0.44 vs. 1.58), p = .002, Cohen's d = -1.30, or negative moods (*M*s = 0.44 vs. 1.05), p < .06, Cohen's d = -0.87.

Focus on the Common Evidence. Moods also influenced focus on the common evidence, F 92, 39) = 4.26, p = .02. But, consistent with hypotheses, group members in positive moods did not differ from group members in negative moods (*M*s = 3.33 vs. 3.19), p = .79, Cohen's d = 0.10. Instead, group members in the diverse mood condition focused on the common evidence significantly less than group members in positive moods (*M*s = 2.00 vs. 3.33), p = .01, Cohen's d = -1.06, or negative moods (*M*s = 2.00 vs. 3.19), p = .02, Cohen's d = -0.87.

Focus on Majority Preferences. To examine focus on majority preferences, I examined two variables: the percent of groups that went along with an incorrect majority and group members' self-reported majority influence. I first examined the percent of groups that went along with an incorrect majority preference. Albeit not significantly different, χ2 (N = 37, df = 2) = 0.37, p = .83 (see Table 8), the frequencies were in the predicted direction. Groups in the positive mood condition went along within an incorrect

majority only 64% of the time; while groups in the negative mood and diverse mood

conditions went along with an incorrect majority 75% and 71% of the time.

Even though significant differences did not emerge on the dichotomous measure

of focus on majority preferences, there was a strong mood effect on group members' self-

reported focus on majority preferences, $F(2, 39) = 6.77$, $p = .003$ (see Table 8).

Consistent with hypotheses, group members in positive moods reported significantly less

majority influence than group members in negative moods (Ms = 3.38 vs. 4.06), $p = .04$,

Cohen's $d = -0.69$. In addition, group members in diverse moods reported significantly

more majority influence than group members in positive moods (Ms = 5.53 vs. 3.38), $p =$

.001, Cohen's $d = 2.61$, and there was a non-significant trend for group members in

diverse moods to report more majority influence than group members in negative moods

(Ms = 5.53 vs. 4.06), $p = .14$, Cohen's $d = 1.82$.

Time spent on task. To analyze the time spent on the task, I followed procedures

outlined by Ratcliff (1993). First, I log transformed the data to eliminate the skew in

distribution, and I conducted analyses on this data. But, in order to facilitate the

interpretation of the means, I report the data in seconds, rather than report the log

transformed data. Mood predicted the total amount of time spent on the task, $F(2, 39) =$

3.77, $p = .03$ (see Table 8). Consistent with hypotheses, group members in positive and

negative moods did not differ in the total amount of time spent on the task ($M = 263$ vs.

200 s), $p = .32$, Cohen's $d = 0.43$. But, group members in the diverse mood condition

discussed the task for less time than group members in positive moods (Ms = 263 vs. 134

s), *p* = .01, Cohen's *d* = -0.93, or negative moods (*M*s = 200 vs. 134 s), *p* < .10, Cohen's *d* = -0.62.

These data lend additional support to the hypothesis that group members in diverse moods focus on the information less because they are spending less time on the task. But, an examination of the mean seconds spent on the task reveal that, across all the conditions, group members did not spend a great deal of time discussing the task. In fact, across conditions, group members spent on average only 199 seconds, or 3 minutes and 19 seconds on the task. This low discussion time could have resulted because of the high agreement that existed within the groups prior to group members discussing the task. To test this notion, I examined whether the number of group members who were in initial agreement to begin with predicted the amount of time spent on the task. It did; as the number of group members who were in agreement increased, the amount of time spent on the task decreased, *r* (43) = -0.44, *p* = .003. Thus, the low discussion times across the conditions likely resulted because groups started out with high initial agreement.

Mediating Processes

I hypothesized that, like in Experiment 1, focus on the critical evidence, rather than focus on the common evidence would mediate the effects of mood on performance. To examine this hypothesis, I used procedures outlined by Baron and Kenny (1986) to test for mediation. In all analyses, I controlled for prior familiarity with the other group members and group members' initial ratings of guilt. First, I established that positive moods (coded as positive mood = 1; negative or diverse moods = 0) predicted ratings of

guilt for the correct suspect, $\beta = 0.28$, t $= 2.32$, $p = .03$. Then, I established that positive

moods predicted focus on the critical evidence, $\beta = 0.43$, $t = 2.94$, $p = .005$, but not focus

on the common evidence $\beta = 0.22$, $t = 1.44$, $p = .16$, indicating that a focus on common

evidence cannot mediate the effect. Finally, I established that when mood, focus on the

critical evidence, and focus on the common evidence were used as simultaneous

predictors of performance, the effects of mood on performance, $\beta = 0.12$, $t = 1.00$, $p =$

.32, were mediated by focus on the critical evidence, $\beta = 0.41$, $t = 2.88$, $p = .007$, Sobel

test of mediation, $Z = 2.06$, $p = .04$, but not focus on the common evidence, $\beta = -0.08$, $t =$

-0.55, $p = .59$, Sobel test of mediation, $Z = 0.51$, $p = .61$ (see Figure 2).

FIGURE 2: *Mediation Analysis for Experiment 2*.
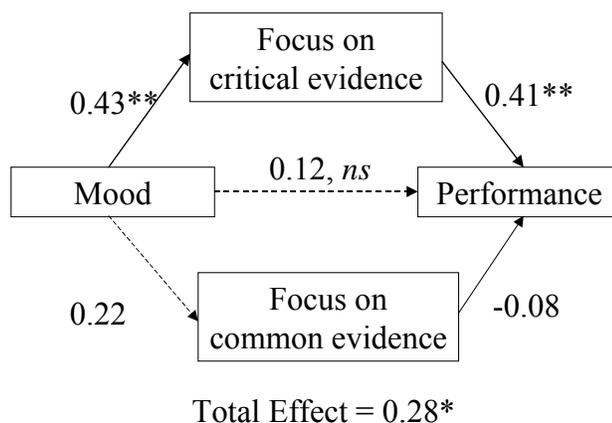
Thus, consistent with the *Mood-as-Strategy Framework*, positive moods resulted

in better group performance because they influenced the degree to which group members

focused on the critical evidence.

Group Consensus

I hypothesized that group members in positive moods would report high acceptance of the group decision, regardless of whether they were in a majority or minority position within the group. In contrast, group members in negative moods and diverse moods would report high acceptance of the group decision only when they were in a majority position within the group. These predictions were tested at the individual level using a mood (positive, negative, control) by majority status (majority, minority) ANOVA.

The results revealed the predicted interaction between mood and majority status, F (2, 122) = 4.37, p = .02 (see Table 8). Consistent with predictions, group members in positive moods reported high levels of acceptance, regardless of whether they were in a majority or minority position with the group (Ms = 6.18 vs. 5.97), p = .49, Cohen's d = 0.21. In contrast, group members in negative moods (Ms = 6.48 vs. 5.34), p < .001, Cohen's d = 1.08, and those in diverse moods (M = 6.46 vs. 5.01), p < .001, Cohen's d = 1.85, reported significantly higher levels of acceptance when in a majority position than in a minority position within the group (main effect of mood: F (2, 122) = 1.12, p = .33; main effect of majority status: F (1, 122) = 26.97, p < .001)[3]. Thus, group members in positive moods, but not those in negative or diverse moods, reached consensus regarding the group decision.

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[3] It is important to note that the composite measure of acceptance contained two questions measuring acceptance and five questions measuring compliance. Because these seven items were all highly correlated they were combined into one measure. Never the less, I also examined the acceptance items separate from the compliance items. The two analyses produced identical results.

Post Hoc Analyses

Overall, the data suggest that positive moods promote group processing and performance more than negative moods or diverse moods. However, the data for the diverse mood condition should be interpreted with caution. In this study I did not directly create a diverse mood condition (i.e. by creating groups with some positive and some negative group members). Rather, I used a control condition that I assumed would be mood diverse. In support of this assertion, groups in the mood diverse condition did report higher within group deviation and lower agreement on the affect measure than group members in either the positive mood or negative mood conditions. Never the less, to further test the assumption that group members in the control condition experienced diverse moods, I also conducted some post-hoc analyses. In these analyses I used group members self-reported affect, along with a measure of within group agreement (r_{wg}), to classify groups as having shared positive moods, shared negative moods, or diverse moods. To be classified as having shared positive moods, all the members of a group had to score higher than the midpoint on the affect measure, and the group had to have an r_{wg} of greater than .70 (an average r_{wg} score of 0.70 or greater indicates that there is enough within-group agreement to justify aggregating the data to the group-level; see Castro, 2002; James et al., 1993; Klein et al., 2000). To be classified as having shared negative moods, all the members of a group had to score lower than the midpoint on the affect measure, and the group had to have an r_{wg} of greater than .70. All other groups were classified as being mood diverse. Consistent with the premise that group members in the positive and negative mood conditions shared the same mood state, while group members

in the diverse mood condition were mood diverse, 80% or more of the groups in each condition were classified correctly, χ^2 (N = 43, df = 4) = 52.40, p < .001 (see Table 10). This finding provides additional support for the premise that groups did differ in terms of diversity.

TABLE 10. *Percent of groups meeting shared versus diverse mood criterion.*

	Percent of groups meeting criterion for:		
Mood Condition:	**Shared Positive**	**Shared Negative**	**Diverse Mood**
Positive Mood	**86%**	0%	20%
Negative Mood	0%	**86%**	0%
Diverse Mood	14%	14%	**80%**

Discussion

Experiment 2 provides further support for the *Mood-as-Strategy Framework* and makes two key contributions to the understanding of mood effects at the group-level. First, in Experiment 2, I manipulated mood after group members encoded the information, but prior to the group discussion. In this way, I was able to isolate the effects of mood on group level processing, independent of the effects of mood on individual information processing. As expected, Experiment 2 replicated the findings of Experiment 1. Specifically, group members in positive moods focused on the critical evidence, in addition to the common evidence, and used this evidence, rather than majority preferences to make a group decision. In contrast, group members in negative moods focused on the common evidence, but not the critical evidence, and they used the initial

majority preferences that existed within the group to make a group decision. As a consequence, group members in positive moods performed better than group members in negative moods on the task, and they were more successful at reaching a true consensus regarding the group decision. Importantly, these performance effects occurred because of differences in the focus on the critical information, rather than differences in the common information. And, because mood was manipulated *after* group members individually encoded the information, I can feel confident that moods influenced these group process and performance measures because of processing that occurred at the group-level, rather than the individual-level. Thus, Experiment 2 not only provides further support for the *Mood-as-Strategy Framework*, it also establishes that moods uniquely influence group-level processing, independent of the effects of mood on individual information processing.

Experiment 2 also examined the role that shared moods play in group-level information processing. I hypothesized that, regardless of mood valence, group members with shared moods would engage in *satisficing* less than group members in a diverse-mood control condition. Consistent with this hypothesis, groups in the shared positive and negative mood conditions focused on the critical evidence more, focused on the common evidence more, relied on initial majority preferences less, and worked on the task for more time than group members in the diverse mood control condition. Thus, consistent with the *Mood-as-Strategy Framework*, Experiment 2 suggests that it is the *shared* experience of positive and negative moods that lead to a common focus on the information (generative and cautious, respectively), and, it is only when group members

fail to share the same mood state that they engage in a strategy of satisficing. These results are important, as they suggest that mood valence may determine the focus of the discussion (generative versus cautious), but it is the shared experience of that mood state that keeps group members motivated to exert effort on the task.

While these results are promising, more work is needed to further examine why group members in the control condition focused on information less, and relied on majority preferences more, than group members with shared moods. I propose that groups in the control condition experienced diverse moods, and it was this mood diversity that resulted in satisficing. In support of this assertion, group members in the control condition did report more mood diversity than group members in the positive and negative mood condition, as evidenced by the fact that they reported more within group deviation and less within group agreement in their affect. Never the less, it is also possible that the effects could have resulted because these groups lacked mood intensity. Indeed, many of the group members in this condition reported affect near the midpoint of the scale. Therefore, although the groups in this condition experienced more mood diversity than those in the mood conditions, they also experienced less extreme affect. As a consequence, it is difficult to know if mood diversity or mood neutrality caused the effects.

In addition, because I experimentally manipulated momentary positive and negative moods in the shared mood conditions, but did not experimentally manipulate momentary moods in the control condition, it is possible that the mood diversity in the control condition was driven more by chronic differences in *trait* affect than by

differences in *state* affect. This is an important point to consider, as little research has been conducted to see if trait affect operates in the same manner as state affect (Gasper & Clore, 1998). If the control condition results were driven by trait affect, rather than state affect, it is difficult to know if the results would generalize to a situation in which group members experienced diverse levels of state affect. In addition, chronic differences in trait affect may interact with a person's current feeling states to influence the extent to which participants view their feelings as being relevant to the situation (Gasper & Clore, 1998). Thus, it is possible that in the current study trait levels of affect in the control condition exacerbated or even attenuated the effects of state mood diversity on group process and performance. Thus, more research is needed to fully explain why group members in positive and negative moods performed better than group members in the control condition.

GENERAL DISCUSSION

In this paper, I proposed a *Mood-as-Strategy Framework* (see Table 1) for understanding the effects of mood on group-level information processing and presented data from two experiments that provided support for it. These experiments were designed to answer the following three key questions: Do the findings reflect the influence of mood at the group-level or individual-level? What are the key mechanisms behind these findings? And, What is the role of shared moods in group-level information processing? These experiments address these questions by establishing that (1) positive and negative

moods uniquely influence group-level information processing, (2) differences in focus on the critical evidence, rather than overall focus, mediate the effects of mood on performance, and (3) shared moods played just as important of a role in group-level information processing as mood valence. Below I discuss in greater detail each of these key contributions.

Moods influence Group Processing

Consistent with the *Mood-as-Strategy Framework*, two experiments support the notion that shared positive moods lead to a *generative* focus on information, characterized by a focus on the unique, critical information that each group member can offer, in addition to the common information. In contrast, shared negative moods lead to a *cautious* focus on information, characterized by a focus on the common information and majority preferences, but not a focus on the unique, critical information. As a consequence, group members in positive moods performed better than group members in negative moods on a hidden profiles task, and they were more successful at reaching a consensus regarding the group decision.

These results seemed to occur because of the influence of mood on group level processing, rather than the influence of mood on individual information processing. Indeed, across both experiments, moods still influenced group process and performance, even though the evidence was uniquely distributed to the group members in a fashion that required group members to discuss and combine their unique information *as a group* in

order to focus on the critical evidence and perform well on the task. In addition, mood influenced performance even when controlling for group members initial preferences. Given that group members' initial preferences are often the strongest determinants of group performance on these types of tasks (Davis, 1973; Gruenfeld et al., 1996, Stasser, 1999; Stasser & Stewart, 1992), these results suggest that mood may play a significant role in group-level processing. Finally, and most importantly, regardless of whether moods were manipulated prior to or after the individual encoding of the information, moods produced analogous effects on group process and performance. Thus, consistent with the *Mood-as-Strategy Framework*, moods influence group-level information processing, independent from moods influence on information processing.

Processing Strategy is the Key Mechanism

These experiments also established differences in focus on the unique, critical information as the key mechanism behind the mood findings. In the *Mood-as-Strategy Framework*, I propose that moods influence group-level information processing because they lead to difference in processing strategies (see Clore et al., 2001; Fiedler, 2001; Fredrickson, 2001). Specifically, positive moods lead to a *generative* focus on information, which results in group members focusing on the unique, critical information that each group member can provide, while negative moods lead to a *cautious* focus on information, which results in group members focusing on the safe, initial majority

preferences that exist within a group. And, it is differential focus on the unique, critical evidence that mediate the effects of mood on performance.

Two experiments supported these hypotheses. In Experiment 1, I found partial support for the hypothesis that group members in positive moods act akin to those who were instructed to focus on the unique, critical evidence (i.e. the generative focus condition), while group members in negative moods act akin to those who were instructed to focus on finding the common group between group members (i.e. the cautious focus condition). In addition, in Experiments 1 and 2, differences in focus on the critical evidence, rather than focus on the common evidence, mediated the effects of mood on performance. Thus, consistent with a *Mood-as-Strategy Framework*, positive moods promoted group performance more than negative moods because positive moods resulted in group members focusing on the unique, critical information that each group member could provide.

These results are particularly important, as an understanding of the mechanisms behind the mood effects can give researchers and practitioners even more tools for understanding and predicting how moods will influence performance on a wide variety of tasks. Indeed, the *Mood-as-Strategy Framework* provides an important tool for developing hypotheses. For example, if positive moods promote a *generative processing strategy* that results in a focus on unique, critical information, then on tasks that require combining large amounts of information or generating unique solutions, such is the case with many information processing and creativity tasks, positive moods should promote group performance more than negative moods.

However, there are many contexts in which negative moods might also promote group process and performance. According to the *Mood-as-Strategy Framework*, negative moods promote a *cautious processing strategy*. In a group context, this cautious strategy translates into a focus on 'safe' information that is easily confirmed by other group members. This focus on safe, confirming information may hurt performance on a task that requires focusing on unique information, but it could promote performance on a task for which confirming information is more important. For instance, a focus on confirming information may help group members to reach a decision on judgment tasks for which there are no correct answers. Likewise, a focus on confirming information may help group members find common ground when working on a negotiation task. Clearly, more research is needed examining how moods influence group processing across these tasks, but the *Mood-as-Strategy Framework* provides a starting point for developing hypotheses to examine mood effects at the group-level.

Along these same lines, it is important to note that the current findings may have been contingent upon certain aspects of the hidden profiles task. For instance, just as past research on mood and individual processing reveals that the influence of moods may change if moods are no longer considered relevant to the situation (Schwarz & Clore, 1983), if the task varies in enjoyment (Wegener et al., 1995), or if the task varies in the amount of thought required (Forgas, 1995), the results on the current task might be different if various group-level factors were altered. Indeed, positive moods are thought to promote performance on tasks that are novel and engaging. Because the hidden profiles task is both new and interesting to group members, these factors of the task could

enhance the beneficial effects of positive moods. If the task were familiar, or not as engaging, the mood effects could be attenuated. Likewise, because group members were mostly unfamiliar with one another prior to working on the task, the detrimental effects of negative moods might have been exacerbated by this unfamiliarity. If group members were familiar with one another and believed that the other members of the group were knowledgeable, trustworthy, and smart (Gruenfeld et al., 1996), then negative moods may no longer hinder group-level information processing, as the caution activated by them might be mitigated by their trust in the other group members. Power or status of the group also may play a role, as group members in negative moods may be more accepting of another person's views if that person has some type of authority or obvious marker of expertise. Thus, the current results must be interpreted with caution within the confines of the current task. Never the less, the current results do provide an exciting starting point for examining the conditions under which positive and negative moods might influence group-level information processing.

Shared Moods Matter

The current experiments also suggest that shared moods may play an important role in group-level information processing. I hypothesized that it is the shared experience of moods that result in group members developing a common focus on information. Consistent with this hypothesis, in Experiment 2, I found that regardless of mood valence, group members with shared moods focused on the information more, relied on

majority preferences less, and worked on the task longer, than group members in a mood diverse control condition. Thus, shared mood states may help group members develop a common focus on the information that keeps group members engaged in the task, whereas diverse mood states may result in group members failing to develop a common focus on information, resulting in group members using majority preferences as a means of satisficing.

These results are particularly important as they suggest that, regardless of whether shared moods are positive or negative, group members may benefit from shared moods more so than diverse moods. Indeed, this may explain why feelings tend to converge in groups over time (Anderson et al., 2003; Barsade, 2002; Hatfield, Cacioppo, & Rapson, 1994; George, 1990; Sy, Côté, & Saavedra, 2005; Totterdell, 1990; Totterdell, Kellett, Briner, and Teuchmann, 1998). These results also suggest that the affective composition of a group may be an important determinant of whether groups successfully work together or not. Thus, the current experiments contribute to the literature by identifying yet another key mechanism for understanding the effects of mood on information processing. By understanding the processes by which moods influence group outcomes, organizations can have even more tools for improving the design and composition of work groups (Barsade & Gibson, 1998; Kelly, 2001; Kelly & Barsade, 2001).

For instance, practitioners often use team building exercises as a tool for creating cohesion, cooperation, and shared goals among group members. Yet, little is understood about why team building exercises are important, or if they are even effective (Salas, Rozell, Mullen, & Driskell, 1999). The current research suggests that shared emotional

experiences may be a key mechanism behind the success of these team building exercises. By understanding the role that shared moods play in group processing and performance, practitioners can use this knowledge to improve training and performance.

Shared moods may also play an important role in a group's development. Groups are thought to pass through progressive stages of development marked by social outcomes. For example, according to Tuckman's (1965) stage model of development, groups pass through distinct phases of forming, storming, norming, and performing. Certain emotional markers can often identify these stages. For instance, the forming stage is often marked by uncertainty and diversity among group members. This diversity and negative affect may be exacerbated in the storming stage, as group members try to identify key roles, goals, and strategies. Fortunately, negative affect and diversity diminish in the norming stage when groups converge in their feelings and beliefs. Interestingly, according to Tuckman (1965), it is only in the performing stage, when groups have achieved shared, positive feelings of cohesion and similarity, that groups are able to successfully perform, a premise that is consistent with the *Mood-as-Strategy Framework*. Thus, future research may want to keep in mind a group's developmental stage when considering the effects of mood on performance. Likewise, theories of group development may benefit from a greater understanding of the effects of mood at the group level, as moods may be an important marker of a group's development and progress.

Conclusions

At the beginning of this paper, I noted that moods "appear to be basically social in nature, not so much because of what elicits them, but because of what they motivate the subject to do or not to do" (Fridja & Mesquita, 1994, p. 76). This premise is the basis behind the *Mood-as-Strategy Framework* proposed within the paper. Indeed, two experiments demonstrate that shared moods influence group-level information processing because they motivate group members to focus on different information. Shared positive moods lead to a *generative* focus on information, characterized by a focus on the unique, critical information that each group member can provide, in addition to the information that group members receive in common. In contrast, shared negative moods lead to a *cautious* focus on information, which focuses people on the common information, but not the unique, critical information that each group member can provide. It is this differential focus on the unique, critical information that explains why group members in shared positive moods perform better than group members in shared negative moods on a group decision-making task. Importantly, it is shared moods that result in the common focus on information, as group members who fail to share the same mood state (i.e. they experience diverse moods), are less likely to focus on the information, and more likely to engage in satisficing, in which group members use initial majority preferences as a means to make a quick decision. Thus the current experiments contribute to the literature and advance research on the understanding of the effects of mood on group-level information processing by establishing that (1) moods influence group processing independent of the

effects of mood on individual information processing, (2) generative and cautious

processing strategies can explain the effects of mood on performance, and (3) the

experience of shared moods is just as important as the valence of the mood when

considering the effect of mood on group-level information processing.

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APPENDIX A:
Indices used in Experiment One

**All questions were presented on a computer using Authorware and Eprime programs. Unless otherwise noted, participants rated their responses using the following scale:

1	2	3	4	5	6	7
No/ Not at all						Yes/ Very

Demographics: age: _____ sex: male female

Familiarity: Indicate how well you know each of the other participants:
0 = Not at all   1 = Not very well   2 = Somewhat well,   3 = Very well

Mood Check: Please answer the following questions:

1. _____ How happy do you feel right now, at this moment?
2. _____ How sad do you feel right now, at this moment?
3. _____ How certain do you feel right now, at this moment?
4. _____ How uncertain do you feel right now, at this moment?

How strongly you are experiencing each characteristic, right now:
_____ positive
_____ negative

Initial Preferences: Please indicate which **one suspect** you believe committed the murder:

_____ Mickey Malone (business associate of the victim)
_____ Eddie Sullivan (handyman who worked for the victim)
_____ Billy Prentice (yardman who worked for the victim)

Group Decision: As a group, please indicate which **one suspect** your group believe committed the murder:

_____ Mickey Malone (business associate of the victim)
_____ Eddie Sullivan (handyman who worked for the victim)
_____ Billy Prentice (yardman who worked for the victim)

Ratings of Guilt: After discussing the murder mystery as a group, rate the extent to which you believe the following:

_____ Mickey was guilty of committing the murder.
_____ Billy was guilty of committing the murder.
_____ Eddie was guilty of committing the murder.

Private Acceptance: We are interested in what you personally believe about the case, separate from the group's decision. Please answer the following questions:

1. _____ Do you agree with the choice the group made?
2. _____ How confident are you that the group made the correct decision?

Focus on the evidence: For each piece of evidence, indicate the extent to which your group discussed and focused on that piece of evidence when making your group decision.

0	1	2	3	4	5	6	7	8	9	10
Not at all		Barely			Somewhat					A lot

	Critical	Common
Eddie left his crowbar lying next to his truck.	X	
Eddie heard Billy's loud station wagon on Saturday morning.	X	
Eddie was working in the barn, 200-300 yards from the house.	X	
Eddie said he parked in the carport next to Fred's truck at 6am.	X	
Eddie usually locks up his tools.	X	
Mickey and Fred were having a business feud.		X
Mickey argued with Fred on the phone Saturday morning.		X
Mickey was originally headed to Fred's house on Saturday.		X
Billy lied about going to Fred's house on Saturday.		X
Billy's fingerprints were found on the crowbar.		X
Billy had problems with money and gambling.		X
Billy moved the crowbar to get the mower out of the garage.**	X	
Mary confirmed that Billy received a loan from Fred on Friday.**	X	
The vehicle that dropped of Fred's wallet ran real quite.**	X	
The wallet was dropped off at 7:00am.**	X	
Rick confirmed that Mickey was at the golf course at 7am.**	X	
Millie confirmed that Mickey stopped for coffee at 6:40am.**	X	
Eddie had a hearing problem.**	X	
Mary saw only her husband's car in the carport at 6:45am.**	X	
There were rumors circulating about Eddie's wife and Fred.**	X	

** Indicates items that were uniquely distributed to group members.

Instructions Check: Prior to discussing the case as a group, the experimenter might have given you a special set of instructions concerning the group task. Please indicate the response that best captures what the experimenter told you:

☐ To ensure success on the task, your group should focus on identifying the widest possible amount of information to use to make a decision. Good decision making requires taking into consideration the position of others, but you should focus on information that brings up unique or disagreeing positions, rather than simply focusing on the information for which you can all easily reach agreement. As a group, you should focus on the unique opinions that each group member can offer.

☐ To ensure success on the task, your group should focus on arriving at a decision that is mutually satisfying to all members of the group. Good decision making requires taking into consideration the position of others, but you should focus on information for which you can all easily reach agreement, rather than focusing on information that brings up unique or disagreeing positions. As a group, you should focus on finding the common ground between each of your group members.

☐ Our group did not receive any special instructions like those listed above.

APPENDIX B:
Indices used in Experiment Two

**All questions were presented on a computer using Authorware. Unless otherwise noted, participants rated their responses using the following scale:

1	2	3	4	5	6	7
No/ Not at all						Yes/ Very

Demographics: age: _____   sex: male   female

Familiarity: Indicate how well you know each of the other participants:
0 = Not at all   1 = Not very well   2 = Somewhat well,   3 = Very well

Initial Preferences: Please indicate which **one suspect** you believe committed the murder:

_____ Mickey Malone (business associate of the victim)
_____ Eddie Sullivan (handyman who worked for the victim)
_____ Billy Prentice (yardman who worked for the victim)

Please rate the extent to which you believe the following:

_____ Mickey was guilty of committing the murder.
_____ Billy was guilty of committing the murder.
_____ Eddie was guilty of committing the murder.

Mood Check: Please answer the following questions:

1. _____ How happy do you feel right now, at this moment?
2. _____ How sad do you feel right now, at this moment?

Rate how strongly you are experiencing each characteristic, right now:

_____ positive   _____ glad   _____ happy   _____ pleasant
_____ negative   _____ sad   _____ unhappy

Group Decision: As a group, please indicate which **<u>one suspect</u>** your group believe committed the murder:

_____ Mickey Malone (business associate of the victim)
_____ Eddie Sullivan (handyman who worked for the victim)
_____ Billy Prentice (yardman who worked for the victim)

Ratings of Guilt: After discussing the murder mystery as a group, rate the extent to which you believe the following:

_____ Mickey was guilty of committing the murder.
_____ Mickey had the opportunity to commit the murder.
_____ Billy was guilty of committing the murder.
_____ Billy had the opportunity to commit the murder.
_____ Eddie was guilty of committing the murder.
_____ Eddie had the opportunity to commit the murder.

Private Acceptance: We are interested in what you personally believe about the case, separate from the group's decision. Please answer the following questions:

1. _____ I agree with the choice the group made.
2. _____ I do not agree with the choice the group made.
3. _____ I expressed agreement with the group decision, even though I did not really believe that this was the best decision.
4. _____ I agreed to go along with the group decision just to avoid creating controversy.
5. _____ I agreed to go along with the group decision because the other group members outnumbered me.
6. _____ I agreed to go along with the group decision just to finish the group discussion.
7. _____ I expressed neither agreement nor disagreement with the group decision.

Focus on the evidence: For each piece of evidence, indicate the extent to which your group discussed and focused on that piece of evidence when making your group decision.

0	1	2	3	4	5	6	7
Not at all		Barely		Somewhat			A lot

	Critical	Common
Eddie left his crowbar lying next to his truck.	X	
Eddie heard Billy's loud station wagon on Saturday morning.	X	
Eddie was working in the barn, 200-300 yards from the house.	X	
Eddie said he parked in the carport next to Fred's truck at 6am.	X	
Eddie usually locks up his tools.	X	
Mickey and Fred were having a business feud.		X
Mickey argued with Fred on the phone Saturday morning.		X
Mickey was originally headed to Fred's house on Saturday.		X
Billy lied about going to Fred's house on Saturday.		X
Billy's fingerprints were found on the crowbar.		X
Billy had problems with money and gambling.		X
Billy moved the crowbar to get the mower out of the garage.**	X	
Mary confirmed that Billy received a loan from Fred on Friday.**	X	
The vehicle that dropped of Fred's wallet ran real quite.**	X	
The wallet was dropped off at 7:00am.**	X	
Rick confirmed that Mickey was at the golf course at 7am.**	X	
Millie confirmed that Mickey stopped for coffee at 6:40am.**	X	
Eddie had a hearing problem.**	X	
Mary saw only her husband's car in the carport at 6:45am.**	X	
There were rumors circulating about Eddie's wife and Fred.**	X	

** Indicates items that were uniquely distributed to group members.

Reliance on majority preferences: Please answer the following questions about the group interaction:

1. _____ The initial preferences of our group members played a large role in our group's final decision.
2. _____ Because most people were in agreement from the beginning, it was easy to make a group decision.
3. _____ I felt like I could disagree with the group.
4. _____ I voiced my disagreement with the group decision.
5. _____ I felt like I made a difference in this group.

VITA

Kosha Darlington-Sabin Bramesfeld

Kosha Bramesfeld received her Bachelor of Arts Degree in Psychology from The University of Wyoming, College of Arts in Sciences, in May of 2000. In December of 2002 she received her Master of Arts Degree in Psychology from The Pennsylvania State University, College of the Liberal Arts. Some of the data presented in this dissertation were presented at The Pennsylvania State University's Annual Graduate School Exhibition in March of 2005 in a poster titled, "Do you feel what I feel? Affect diversity and group-level information processing." The poster won First Prize in the Social and Behavioral Sciences division. This poster also was presented at the 2005 Annual Society for Personality and Social Psychology Conference, The Pennsylvania State University's 2005 Emotion Research Network Conference, and The 2005 Annual Meeting of the Penn State Chapter of Sigma Xi.