AMBIGUITY AS FRIEND OR FOE: THE USE OF AMBIGUOUS INFORMATION IN THE SELF-SERVING ACHIEVEMENT OF TASK GOALS

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ABSTRACT

A review of the social psychological literature reveals that people often exploit ambiguity to fulfill self-serving objectives. We build on this idea by proposing a simple framework for understanding how people use ambiguous information to achieve superior task performance. According to the framework, people prefer (and use) both ambiguous and non-ambiguous information when their goal is to achieve task excellence, but they prefer (and use) only non-ambiguous information when their goal is to achieve less than excellence. The results of an experiment supported these hypotheses and also showed that the goal of excellence produced a match between type of preferred information and type of task. Specifically, participants performing an abstract task showed a particularly strong preference for ambiguous information, whereas people performing a concrete task showed a particularly strong preference for non-ambiguous information. The theoretical implications of people's use of ambiguity in the service of the self and of their groups are discussed.

INTRODUCTION

A dominant theme of many classic social psychological theories has been the pervasive tendency of people to prefer stability, clarity, orderliness, controllability, and regularity in their social lives. Such an assumption is central to dissonance theory (Festinger, 1957), balance theory (Heider, 1958), the belief in a just world (Lerner, 1970), group interactions (Festinger, 1950), attribution theory (Kelley, 1967), decision theory (Hogarth, 1987), and the development of social categories and stereotypes (Tajfel, Billig, Bundy, & Flament, 1971). Human beings, it seems,
prefer clarity over ambiguity in a variety of contexts and in the service of fulfilling many of their social, personal, and psychological needs.

Paradoxically, social psychologists have also generated a stream of research that convincingly supports the precise opposite conclusion, namely, that the absence of clarity often best serves people's psychological and material needs. Indeed, conditions have been identified under which people prefer ambiguity, and may even strategically use ambiguous circumstances to their advantage. For example, Felson (1981) found that athletes were more likely to exaggerate their abilities on ambiguous dimensions (e.g., mental toughness) than on non-ambiguous dimensions (e.g., running speed). Moreover, several investigators (Allison, Messick, & Goethals, 1989; Dunning, Meyerowitz, & Holzberg, 1989; Van Lange & Sedikides, 1998) have discovered that people tend to see themselves as better than others on ambiguous dimensions (e.g., general driving ability) but not on specific, non-ambiguous dimensions (e.g., parallel parking). One explanation for these findings resides in the inherent value of ambiguity in providing opportunities for self-promotion. People may recognize that performances on ambiguous dimensions are more difficult to verify, thus making it easier to inflate one's standing on those dimensions without detection.

In a similar vein, research has shown that people are more likely to selfishly overconsume shared resources that are not clearly defined in terms of size and shape than resources that are clearly defined (Allison, McQueen, & Schaeferl, 1992; Herlocker, Allison, Foubert, & Beggan, 1997). Participants in these studies are typically asked to share resources with others, and these resources are either partitioned in their form (e.g., marbles worth two U.S. dollars each) or nonpartitioned in their form (e.g., sand worth two U.S. dollar per pound). The results of these studies consistently show that although people are reluctant to consume more than their equal share of partitioned resources, they are very willing to exceed their equal share of nonpartitioned resources. The ambiguity inherent in measuring portions of nonpartitioned resources liberates people to pursue their own best interests at the expense of others. All of the above findings suggest that ambiguous circumstances provide an opportunity for people to enhance the self and for gaining a relative psychological (or material) advantage over others.

Recent decision making research also highlights the role of ambiguity in promoting self-serving judgments. Hsee (1995; 1996) refers to the phenomenon as elasticity justification, which he defines as the tendency of people to use uncertainty, and different interpretations of uncertainty, to justify actions that would otherwise be unjustifiable. Social cognition researchers, moreover, have recently focused attention on the idea of motivated reasoning. People attend to information that best serves the self, and the more variegated and complex that information is, the greater the tendency of people to twist the information to their own advantage (Kernahan & Bettencourt, 2002; Kunda, 1990; Mackie, Ahn, Asuncion, & Allison, 2001). Thus there is some suggestion in prior work that people may exploit situations of uncertainty in the service of fulfilling self-benefiting goals.

The goal of the present research was to establish whether ambiguous information provides opportunities for people to successfully achieve self-promoting goals in common tasks. To the
best of our knowledge, no one has directly uncovered behavioral evidence of people's self-serving use of ambiguous information in work task settings. We have conducted a recent series of studies that are highly suggestive of the value of ambiguous information in competing successfully against others (Eylon & Allison, 2002). In one of these studies, participants received both ambiguous and non-ambiguous information about how to operate a successful restaurant. Examples of ambiguous information included must fill a niche and must have an inviting décor, whereas examples of non-ambiguous information included must have a one-page ad in the telephone book and must purchase all furnishings one month in advance. Participants were asked to choose which information they preferred to share with their business partners and which they would be willing to give away to the owners of a competing restaurant. The results showed that participants were significantly more likely to keep the ambiguous information for themselves and their business partners, and to give away the non-ambiguous information to their competitors. This finding held true even when controlling for several other characteristics of the information that co-varied with ambiguity, such as the perceived importance and obviousness of the information, and how difficult the information was to understand and to act on.

From these considerations, we propose a simple framework that suggests that the use of informational ambiguity is inherently essential for superior behavioral performance on most, if not all, tasks. We suggest that achieving excellence on ambiguous dimensions plays a pivotal role in the process of completing a task successfully or competing successfully against others. We do not deny the importance of acting on non-ambiguous dimensions; indeed, a restaurant can have an exceedingly inviting décor (an ambiguous dimension) but will likely go bankrupt without appropriate furnishings (a non-ambiguous dimension). We argue that the effective use of non-ambiguous information is a necessary but not a sufficient condition for task excellence. To achieve excellence, one must capitalize on both ambiguous and non-ambiguous information.

Our proposed framework also accounts for how people use information when they do not strive to achieve excellence. When the goal is to create a product of merely average quality, we hypothesize that it is not necessary for people to use, or have access to, ambiguous information. This assertion has good face validity; for example, a restaurant with no ambition for excellence will most likely give little attention to their décor or their ambience (ambiguous dimensions) but will nevertheless have to provide customers with utensils, chairs, and cooks (non-ambiguous dimensions).

As noted above, social psychologists have not directly studied the issue of how people use information to complete specific task goals. There is, however, a robust literature on the effective pooling of information among group members in collective problem solving tasks (Dennis, 1997; Graetz, Boyle, Kimble, Thompson, & Garlock, 1998; Stasser, 1991; Stasser, Stewart, & Wittenbaum, 1996; Stewart & Stasser, 1998; Stewart, Billings, & Stasser, 1998). Moreover, scholars in the field of organizational behavior have indirectly alluded to the unrecognized value of ambiguous information (Donnellon, Gray, & Bougon, 1986; Weick, 1979) and have addressed some issues associated with ambiguity in the context of goal-setting (Locke & Latham, 1990). Our present studies seek to add to this literature by examining the pivotal role of informational ambiguity in people’s behavioral efforts to achieve superior performance on task goals.
To test our hypotheses, we conducted an experiment that varied participants’ goals (either excellent or average product), access to type of information (either ambiguous, non-ambiguous, or both), and type of task (either concrete or abstract). We manipulated this latter variable because we wished to determine whether people's preference for ambiguous information is dependent upon the nature of the task confronting them. When people try to excel at abstract tasks (e.g., generating ideas), are they especially likely to gravitate to information that is ambiguous? Conversely, when people try to excel at concrete tasks (e.g., building a house), are they more likely to gravitate to information that is non-ambiguous?

**METHOD**

**Participants**

The participants were 96 undergraduates whose participation fulfilled their introductory psychology course requirement. Sixty-two participants were female and 34 were male. The average age of participants was 20.3 years.

**Overview of Experiment**

The experiment employed a 2 (task: concrete, abstract) x 2 (goal: excellence, average) x 3 (information: ambiguous, non-ambiguous, both) between-subjects factorial design. Participants were given the task of either building a dollhouse (concrete task) or composing ideas for an essay (abstract task). Their goal was either to generate a superior product (excellence goal) or an average product (average goal). To assist participants with their goal, information was provided to them that was ambiguous, non-ambiguous, or both.

**Pre-Testing of Materials**

Pre-testing was conducted to ensure that the two tasks (building a dollhouse and composing an essay) differed on the abstract/concrete dimension only. Prior to the experiment, 37 undergraduates were asked to judge the two tasks on a 1 (very concrete) to 7 (very abstract) scale. The results revealed that the essay task was judged to be significantly more abstract (M = 5.14) than the dollhouse task (M = 2.88), F(1, 35) = 10.01, p < .01. Participants also rated the two tasks on a variety of other dimensions. The results showed that participants rated the two tasks as roughly the same on all these dimensions, which included (a) how familiar participants were with the tasks, (b) how difficult the tasks were judged to be, (c) how much creativity the tasks required, and (d) how much analytical skill the tasks required (all Fs < 1).

Pre-testing was also conducted to ensure that the ambiguous and non-ambiguous information given to participants differed only on the dimension of ambiguity/non-ambiguity. In the dollhouse condition, the five items of ambiguous information were that the dollhouse (1) must be aesthetically pleasing, (2) must be realistic, (3) must make efficient use of space, (4) must seem comfortable to live in, and (5) must have a modern look. The five non-ambiguous informational
items were that the dollhouse (1) must have a front door, (2) must have four windows, (3) must have a roof, (4) must have a kitchen, and (5) must have two floors.

In the essay condition, the five items of ambiguous information were that the essay (1) must support a position, (2) must be original, (3) must be intellectually stimulating, (4) must be well-organized, and (5) must keep the reader’s attention. The five non-ambiguous informational items were that the essay (1) must be double-spaced, (2) must have a title, (3) must be one page long, (4) must by typed in size 14 font, and (5) must be spell-checked.

Prior to the experiment, a sample of 52 undergraduates rated this information on the dimensions of ambiguity, importance, obviousness, difficulty of understanding, difficulty of implementation, and strategic/tactical characteristics. Participants were asked to circle a number on a series of 1 to 7 scales, with higher numbers indicating higher judged positions on the dimensions. The results revealed that our ambiguous items were judged to be significantly more ambiguous ($M = 5.48$) than our non-ambiguous items ($M = 3.17$), $F(1, 50) = 14.44, p < .001$. Our ambiguous and non-ambiguous informational items were not judged to be different on any of the other dimensions (all $Fs < 1.2$).

Procedure

Participants arrived individually for an experiment entitled Task Perception. One half of the participants was told that their task was to compose ideas for an essay which they were to write as an evaluation of the introductory psychology course. The other half was told that their task was to use construction materials to build a miniature dollhouse. These materials included colored paper, toothpicks, sequins, string, glue, and scissors.

After being informed of their task, participants were then given their goal for the task. One half of the participants were assigned to the excellence goal condition. These participants were told that their goal was to construct the best dollhouse (or to write the best essay) that they possibly could. To provide an incentive, the experimenter explained that the best dollhouse (or essay) would be selected at the end of the semester and that the winning participant would receive $25. The other half of the participants was assigned to the average goal condition. These participants were told that because their task was not an important part of the experiment, their goal was to construct an average dollhouse (or essay) and that they need not worry about creating a high quality product.

Participants were then told that they would be given five pieces of information to assist them in performing their tasks. One third of the participants (in the ambiguous information condition) were given the five ambiguous pieces of information. Another third of the participants (in the non-ambiguous information condition) were given the five non-ambiguous pieces of information. A final third of the participants (in the both condition) were given five pieces of information that were a mix of both ambiguous and non-ambiguous information (either three ambiguous and two non-ambiguous items, or two ambiguous and three non-ambiguous items).
The two (or three) items of ambiguous (or non-ambiguous) information were chosen randomly from the pool of five items of each type.

After participants received their task instructions, goals, and information, they were then given 30 minutes to complete their tasks. Upon completion of their tasks, participants completed a questionnaire measuring their evaluation of the information given to them. Participants were then debriefed and excused.

Dependent Variables

Participants’ dollhouses and essays were evaluated by three undergraduate raters who were blind to the experimental conditions and hypotheses. The primary dependent variables of interest were (a) the external raters’ evaluation of the quality of participants’ dollhouse and essays, (b) participants’ evaluation of the usefulness of the information provided to them, and (c) participants’ level of frustration with the degree of usefulness of the information.

RESULTS

Manipulation Checks

After completing their tasks, participants were asked to judge, on a 1 (not at all) to 7 (extremely) scale, the degree to which their goal was to construct an excellent product. Participants in the excellence condition were significantly more likely to indicate that their goal was excellence (M = 5.54) than were participants in the average condition (M = 3.89), F(1, 84) = 4.38, p < .05. Consistent with our pre-testing results, participants also rated the ambiguous information as more ambiguous (M = 4.88) than the non-ambiguous information (M = 3.70), F(1, 84) = 4.11, p < .05, and they rated the essay task as more abstract (M = 4.62) than the dollhouse task (M = 3.25), F(1, 84) = 4.80, p < .05. These results suggest that our experimental manipulations were successful. Appendix A displays the descriptive statistics and correlations among the three dependent variables.

External Raters’ Perceptions of Product Quality

Three raters who were blind to the experimental hypotheses were asked to rate the quality of the product generated by each participant. The ratings ranged from 1 (extremely poor quality) to 10 (extremely high quality). The three sets of ratings achieved an alpha of .82, indicating that our raters were in general agreement about what constituted a high or low quality product. We computed the average of the three ratings, and submitted these average ratings to a 2 (task: concrete, abstract) x 2 (goal: excellence, average) x 3 (information: ambiguous, non-ambiguous, both) analysis of variance (ANOVA).

The ANOVA yielded two significant effects of interest. First, not surprisingly, participants whose goal was to create an excellent product produced a higher quality product (M = 7.46) than
did participants whose goal was to produce an average product ($M = 6.10$), $F(1, 84) = 72.79$, $p < .001$. Of greater importance was the three-way interaction that emerged between task, goal, and information, $F(2, 84) = 7.31$, $p < .001$. The means associated with this interaction are displayed in Table 1.

**Table 1: Mean Ratings of Product Quality**

<table>
<thead>
<tr>
<th></th>
<th>Concrete Task</th>
<th>Abstract Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Ambiguous Information</td>
<td>6.50</td>
<td>6.35</td>
</tr>
<tr>
<td></td>
<td>(0.85)</td>
<td>(0.82)</td>
</tr>
<tr>
<td>Average Goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambiguous Information</td>
<td>5.85</td>
<td>5.88</td>
</tr>
<tr>
<td></td>
<td>(0.34)</td>
<td>(0.52)</td>
</tr>
<tr>
<td>Both Types of Information</td>
<td>6.13</td>
<td>6.00</td>
</tr>
<tr>
<td></td>
<td>(0.63)</td>
<td>(0.99)</td>
</tr>
<tr>
<td>Non-Ambiguous Information</td>
<td>7.60</td>
<td>6.00</td>
</tr>
<tr>
<td></td>
<td>(0.52)</td>
<td>(0.67)</td>
</tr>
<tr>
<td>Excellence Goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambiguous Information</td>
<td>6.98</td>
<td>8.08</td>
</tr>
<tr>
<td></td>
<td>(0.48)</td>
<td>(0.58)</td>
</tr>
<tr>
<td>Both Types of Information</td>
<td>8.11</td>
<td>7.55</td>
</tr>
<tr>
<td></td>
<td>(0.82)</td>
<td>(0.41)</td>
</tr>
</tbody>
</table>

Note: Standard deviations appear in parentheses.

To interpret this three-way interaction, we computed separate task by information ANOVAs for the average goal condition and the excellence goal condition, using the error term from the
overall ANOVA. The analysis of the average goal data revealed only a main effect of information; participants produced a better product when they had access to non-ambiguous information (M = 6.43) than when they had access to ambiguous information (M = 5.86) or both types of information (M = 6.06). The ANOVAs also showed that the task by information interaction was significant in the excellence goal condition, F(2, 84) = 8.21, p < .01, but not in the average goal condition (F < 1). As shown in Table 1, the task by information interaction in the excellence condition reveals that participants made a higher quality abstract product when they had ambiguous information (M = 8.08) than when they had non-ambiguous information (M = 6.00). Conversely, participants made a higher quality concrete product when they had non-ambiguous information (M = 7.60) than when they had ambiguous information (M = 6.98). Moreover, as hypothesized, product quality was most enhanced when both ambiguous and non-ambiguous information was provided to participants.

To better understand our data, we conducted two orthogonal contrasts on the excellence goal data. The first tested whether concrete task participants produced a better product when they had access to non-ambiguous information (M = 7.60) and both types of information (M = 8.11) than when they had access to ambiguous information (M = 6.98). This contrast was significant, F(1, 84) = 6.62, p < .05. The second contrast tested whether abstract task participants produced a better product when they had access to ambiguous information (M = 8.08) and both types of information (M = 7.55) than when they had access to non-ambiguous information (M = 6.00). This contrast was also significant, F(1, 84) = 7.01, p < .05.

**Perceptions of Information Value**

Participants were asked to indicate the extent to which the information provided to them was valuable for achieving their goals. The rating scale ranged from 1 (not at all valuable) to 7 (extremely valuable). The ANOVA revealed a main effect of goal, F(1, 84) = 78.59, p < .001, indicating that participants in the excellence goal condition judged the information to be more valuable (M = 5.77) than did participants in the average goal condition (M = 4.57). Of greater importance was the three-way interaction that emerged, F(1, 84) = 3.02, p < .05. The means associated with this interaction are reported in Table 2.

**Table 2: Mean Ratings of Information Value**

<table>
<thead>
<tr>
<th></th>
<th>Concrete Task</th>
<th>Abstract Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Ambiguous</td>
<td>5.65</td>
<td>5.00</td>
</tr>
<tr>
<td>Information</td>
<td>(0.58)</td>
<td>(0.67)</td>
</tr>
<tr>
<td>Average Goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambiguous Information</td>
<td>4.10</td>
<td>4.22</td>
</tr>
<tr>
<td></td>
<td>(0.57)</td>
<td>(0.74)</td>
</tr>
</tbody>
</table>
Both Types of Information | 4.25 | 4.36  
| | (0.80) | (0.50)  
Non-Ambiguous Information | 5.80 | 5.28  
| | (0.42) | (0.69)  

Excellence Goal

| Ambiguous Information | 5.10 | 6.40  
| | (0.57) | (0.66)  
| Both Types of Information | 6.00 | 5.95  
| | (0.33) | (0.74)  

Note: Standard deviations appear in parentheses.

Separate task by information ANOVAs were conducted on the average goal and excellence goal data. Once again, the average goal analysis revealed only a main effect of information; participants valued non-ambiguous information (M = 5.33) more than ambiguous information (M = 4.15) or both types of information (M = 4.31), F(2, 84) = 4.47, p < .05. The excellence goal analysis revealed a significant task by information interaction, F(2, 84) = 5.13, p < .05. As shown in Table 2, participants in the abstract task found ambiguous information to be more valuable (6.40) than non-ambiguous information (5.28), whereas participants in the concrete task rated non-ambiguous information more valuable (5.80) than ambiguous information (5.10). Also note that participants found having both types of information (ambiguous and non-ambiguous) was far more valuable when they were trying to make an excellent product (6.00 for concrete and 5.95 for abstract) than when they were trying to make an average product (4.25 and 4.36, respectively).

To better understand the task by information interaction in the excellence goal condition, we conducted two orthogonal contrasts. The first tested whether concrete task participants valued their information more when they had access to non-ambiguous information (M = 5.80) and both types of information (M = 6.00) than when they had access to ambiguous information (M = 5.10). This contrast was significant, F(1, 84) = 5.62, p < .05. The second contrast tested whether abstract task participants valued their information more when they had access to ambiguous information (M = 6.40) and both types of information (M = 5.95) than when they had access to non-ambiguous information (M = 5.28). This contrast was also significant, F(1, 84) = 4.01, p < .05.
Frustration With the Information

Participants were also asked how frustrated they were with their information’s usefulness in achieving their goals. The rating scale ranged from 1 (not at all frustrated) to 7 (extremely frustrated). Once again, the ANOVA revealed a three-way interaction, F(1, 84) = 8.25, p < .001. The means associated with this effect are shown in Table 3.

Table 3: Mean Ratings of Reported Frustration With the Information

<table>
<thead>
<tr>
<th></th>
<th>Concrete Task</th>
<th>Abstract Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Ambiguous</td>
<td>3.55</td>
<td>3.01</td>
</tr>
<tr>
<td>Information</td>
<td>(0.49)</td>
<td>(0.65)</td>
</tr>
<tr>
<td>Average Goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambiguous Information</td>
<td>4.50</td>
<td>3.70</td>
</tr>
<tr>
<td></td>
<td>(0.53)</td>
<td>(0.48)</td>
</tr>
<tr>
<td>Both Types of</td>
<td>4.00</td>
<td>3.50</td>
</tr>
<tr>
<td>Information</td>
<td>(0.82)</td>
<td>(0.58)</td>
</tr>
<tr>
<td>Non-Ambiguous</td>
<td>3.30</td>
<td>4.73</td>
</tr>
<tr>
<td>Information</td>
<td>(0.82)</td>
<td>(0.53)</td>
</tr>
<tr>
<td>Excellence Goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambiguous Information</td>
<td>4.30</td>
<td>3.35</td>
</tr>
<tr>
<td></td>
<td>(0.48)</td>
<td>(0.67)</td>
</tr>
<tr>
<td>Both Types of</td>
<td>3.13</td>
<td>3.83</td>
</tr>
<tr>
<td>Information</td>
<td>(0.25)</td>
<td>(0.35)</td>
</tr>
</tbody>
</table>

Note: Standard deviations appear in parentheses.
Once again, we conducted separate ANOVAs on the average goal and excellence goal data. As in previous analyses, the average goal ANOVA revealed only a main effect of information; average goal participants were less frustrated with non-ambiguous information (M = 3.28) than with ambiguous information (M = 4.11) or both types of information (M = 3.73), F(2, 84) = 4.47, p < .05. The excellence goal analysis revealed a significant task by information interaction, F(2, 84) = 5.13, p < .05. As indicated in Table 3, this interaction shows that participants in an abstract task were more frustrated with non-ambiguous information (M = 4.73) than with ambiguous information (M = 3.35), whereas in the concrete task they were more frustrated with the ambiguous information (M = 4.30) than with the non-ambiguous information (M = 3.30).

Two orthogonal contrasts were performed on the excellence goal data. The first tested whether concrete task participants were less frustrated with their information when they had access to non-ambiguous information (M = 3.30) and both types of information (M = 3.13) than when they had access to ambiguous information (M = 4.30). This contrast was significant, F(1, 84) = 4.98, p < .05. The second contrast tested whether abstract task participants were less frustrated with their information when they had access to ambiguous information (M = 3.35) and both types of information (M = 3.83) than when they had access to non-ambiguous information (M = 4.73). This contrast was also significant, F(1, 84) = 4.26, p < .05.

DISCUSSION

We began this article by proposing that informational ambiguity plays a central role in promoting superior task performance. Building on our recent work that highlights the underrated value of ambiguous information (Eylon & Allison, 2002), we proposed that ambiguity signals a depth and richness of interpretation needed to excel in a task or to rise above the competition. Our proposed framework did not discount the importance of non-ambiguous information in achieving task goals. Indeed, we proposed that the effective use of non-ambiguous information is essential for creating an average product as well as an excellent one. Excellence, however, requires acting on both non-ambiguous and ambiguous information.

Our data were largely supportive of our hypotheses. Participants whose goal was to achieve excellence generated a product that was judged to be of highest quality when they had access to both ambiguous and non-ambiguous information. These same participants judged their information to be of greatest value to them, and they reported the least amount of frustration with their information. Interestingly, this pattern shifted depending on the type of task assigned to participants. Participants working on the concrete task preferred (and needed) both ambiguous and non-ambiguous information to achieve their goal of task excellence, but these participants showed a stronger preference (and need for) the non-ambiguous information. Conversely, participants working on the abstract task preferred (and needed) both ambiguous and non-ambiguous information to achieve their goal of task excellence, but these participants showed a stronger preference (and need for) the ambiguous information. In short, we obtained some evidence for a match between task type and information type: The more concrete the task, the more that concrete information appears essential for task excellence, and the more abstract the task, the more that abstract information appears essential for task excellence.
Also as predicted by our model, when participants attempted to create an average product, they were more likely to prefer, and were least frustrated with, information that was non-ambiguous in nature. It is interesting to note that average goal participants generated a better product (as judged by external raters) when they had access to non-ambiguous information than when they had access to ambiguous information. Given the relatively high ratings of the average products (roughly 6 on a 1 to 10 scale), it is possible that the non-ambiguous information actually enabled average goal participants to generate an above-average product. However, in light of average goal participants’ ratings of information value and frustration, it is more likely that the non-ambiguous information was ideal for the creation of an average product, and that having access to ambiguous information may have contributed to the creation of a somewhat below-average product.

In the introduction to this paper, we proposed that people may be motivated to use ambiguity to fulfill self-serving motivations. We acknowledge that one limitation of our research is that we never directly operationalized a self-enhancing motivational variable. As such, we cannot yet rule out the possibility is that human beings are quite rational in their use and interpretation of the value of ambiguous and non-ambiguous information. Specifically, it is possible that people (a) view non-ambiguous information as denoting minimum standards for acceptable performance, and (b) view ambiguous information as denoting standards above and beyond minimal performance. One fruitful direction for future research would be to investigate whether people make these rational interpretations of informational ambiguity (and non-ambiguity). Moreover, additional research is needed to more directly measure whether ambiguity triggers self-serving motivational tendencies.

We also acknowledge that a more complete model of information use may have included a third goal to accompany average and excellent product, namely, the goal of poor product. At first blush, a goal of incompetence might seem absurd, yet there is a small body of work that focuses on the conditions under which members of groups and organizations are likely to deliberately engage in what has been termed organizational sabotage (Giacalone & Rosenfeld, 1987). We chose to omit this goal of poor performance for two reasons. First, rarely do people deliberately attempt to create a poor product or to engage in organizational sabotage. Second, there is little basis for generating predictions about the type(s) of information people might require to do a poor job. One might argue that no information is required for poor performance, but at the same time one could argue that people might need both ambiguous and non-ambiguous information -- the same needed for excellence -- if only to know what dimensions are essential on which to perform poorly.

We did, however, have considerable basis for generating predictions about the power of ambiguity in promoting task excellence. The self-enhancement literature suggests that under some conditions, people may prefer ambiguity because it enables them to fulfill their self-serving needs (Allison et al., 1989; Allison et al., 1992; Felson, 1981; Herlocker et al., 1997; Van Lange & Sedikides, 1998). The organizational behavior literature hints at the value of ambiguity but provides little or no supporting empirical work (Donnellon et al, 1986; Wieck, 1979). These studies, along with our own recent studies of ambiguous information (Eylon & Allison, 1998),
suggest the counter-intuitive notion that humans may not eschew ambiguity as many classic social psychological theories might suggest. In fact, it is our contention that people go out of their way to exploit ambiguity and uncertainty whenever possible (see also Messick, 1999).

Our unique contribution to the literature on ambiguity resides in its focus on the behavioral consequences of using ambiguous versus non-ambiguous information. As mentioned in the introduction, prior research has addressed the manner in which ambiguity presents opportunities for human judgment to be distorted in a self-serving direction (Eylon & Allison, 2002; Felson, 1981; Hsee, 1996; Kernahan & Bettencourt, 2002). Our work goes extends our understanding of ambiguity by demonstrating its power to enhance performance on behavioral tasks. Several critics of social cognition have lamented its almost exclusive reliance on judgments and inferences as dependent variables at the expense of observing actual behavior (e.g., Allison & Kerr, 1994). Informational ambiguity, we have shown, has behavioral as well as affective consequences. We hope that our model and our data engender additional theoretical and empirical attention toward the largely unrecognized depth and richness of ambiguous stimuli in work task settings.

REFERENCES


**APPENDIX A: Descriptive Statistics and Correlations Among the Dependent Variables**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Quality</td>
<td>6.75</td>
<td>.71</td>
<td>(.88)</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
2  Information    7.45  .59  .58**  (.79)  --
    Value

3  Frustration  3.74  .61  -.44**  -.68**  (.84)

**p < .05; Coefficient alphas appear on the diagonal

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