

THE ROLE OF MOOD STATES IN SOCIAL IMPRESSION ESTIMATES

By

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To my parents.

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I thank my parents and friends for their kind and patient support. I also thank my committee members for their guidance and advice.

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Abstract of Thesis Presented to the Graduate School  
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THE ROLE OF MOOD STATES IN SOCIAL IMPRESSION ESTIMATES

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The present research examines the influence of people's moods on anticipated audience impressions. In Study 1, participants received bogus positive, negative, or no feedback about their performance on a task and predicted a hypothetical audience's impressions of them in several social scenarios. Although participants' moods were successfully altered by the feedback manipulation, anticipated impressions did not differ between the three feedback conditions. In Study 2, participants wrote about a sad or a happy news story prior to estimating how an audience might judge their performance on a novel test. Writing about a sad news story lead to less favorable anticipated impressions and opinions about own performance than did writing about a happy news story.

## CHAPTER 1

### INTRODUCTION

#### **Opening Section**

In everyday life, people frequently wonder how others regard them. When giving a talk, conversing with friends, or hosting a party, one may have concerns or expectations about what others' opinions of him or her may be. Sometimes, one may expect others to hold a favorable view of him or her; and at other times, under the same circumstances, one may expect an unfavorable opinion from others. What exactly makes people believe at times that all eyes are cast upon them in admiration, and at other times, that others shun them with bitter criticism?

One can come up with numerous answers to this question. I argue that one source of differences in expectations about evaluations from others are one's private mood states. Here, I use the term "mood" to indicate a transient emotional state. The mood state is considered private when only the individual experiencing the state is aware of it and when others have no way of knowing about it, or when it is not relevant to others' likely impressions. I suggest that private moods can produce momentary shifts in people's self-views, which can influence peoples' predictions of how others may judge them. Specifically, I hypothesize that people in a good mood will expect more favorable evaluations from others than will people in a bad mood. However, these expectations may be erroneous: others' actual opinions of the individual may have little to do with his or her mood-colored expectations.

To describe which processes may be responsible for mood-influenced expectations, in the following paragraphs, I will outline research findings on the accuracy of people's estimates of others' impressions of them, on egocentric biases in reasoning and perspective taking, and on mood-induced biases in decision-making. These areas of research form the foundation for my hypothesis.

## **Accuracy of Impression Estimates**

According to my hypothesis, people may base their predictions of others' opinions of them on how they themselves feel at the moment, and this may result in biased estimates of others' impressions. This argument is consistent with existing research on biases and errors in impression estimates. For example, in their review Kenny and DePaulo (1993) report that the impressions people anticipate from others are often remarkably different from others' actual impressions (Kenny & DePaulo, 1993). This error occurs because actors tend to rely on their own self-views, rather than on the feedback from others, when estimating how those others may regard them (Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979).

More recent research on biases and errors that afflict impression estimates illustrates that people also tend to overestimate others' ability to guess their internal feelings and states (Gilovich, Savitsky, & Medvec, 1998). This phenomenon, called the illusion of transparency, was demonstrated in a study by Gilovich and colleagues (1998). In that study, some participants were asked to make either truthful or deceptive statements to other participants. Next, participants who made the statements estimated how many of those statements would be correctly identified as deceptive by other participants. The participants who listened to the statements were asked to estimate how many of the statements they heard were deceptive. The researchers found that participants who made the statements consistently overestimated how detectable their deceptive statements were to others (Gilovich et al., 1998).

In addition to erring about how detectable their feelings and internal states are to others, people also tend to overestimate the extent to which others notice their actions and appearance (Gilovich, Medvec, & Savitsky, 2000). This phenomenon is described as a "spotlight effect." In one of the studies by Gilovich and colleagues (2000) participants were asked to wear a t-shirt imprinted with an embarrassing image and to briefly enter a room in which other students were

busy completing a task. Later, the participants who previously entered the room were asked to predict the number of students in the room who could correctly recognize the image on their shirt. The students in the room were in turn asked whether they recognized the image imprinted on the shirt. Comparison of these responses revealed the participants' tendency to overestimate the number of students who noticed the embarrassing image on their shirt (Gilovich et al., 2000).

Not only do people overestimate the extent to which their actions and internal states are noticeable to others, they also tend to expect overly harsh reactions from others to social blunders they commit. In a study dealing with this bias, "actor" and "observer" participants read the descriptions of social scenarios involving potentially embarrassing behaviors (e.g., arriving at a dinner party without a gift for the host) and were asked to imagine either committing ("actors") or witnessing ("observers") these behaviors (Savitsky, Epley, & Gilovich, 2001). Afterwards, actors predicted how observers might evaluate them if they committed those behaviors, and observers estimated how they would evaluate a person who committed such behaviors (Savitsky et al., 2001). Although actors tended to believe that observers would judge their behaviors harshly, observers' ratings of the actors were much more charitable than the actors predicted.

### **Why are Impression Estimates Inaccurate?**

The overall conclusion that can be gathered from this research is that people tend to be inaccurate when trying to estimate what others think of them. Why does such inaccuracy occur? Kenny and DePaulo (1993) offer several reasons. In everyday interactions, people are faced with a multitude of verbal and nonverbal cues to others' thoughts about and feelings towards them, and it may be difficult to notice and interpret all of these cues. In addition, others may choose to deliberately omit or conceal their true opinion of the individual. As a result, people rarely receive accurate information about others' true impressions of them (Kenny & DePaulo, 1993).

Moreover, Shrauger and Schoeneman (1979) suggest that when feedback from others is vague, people may rely heavily on their own opinions of themselves on the attribute that is being evaluated when predicting what the others' opinion may be. Gilovich and colleagues (1998; 2000) give a similar explanation for the illusion of transparency and the spotlight effects mentioned earlier. They argue that these phenomena occur because people tend to focus on their own appearance, experiences, and private internal states (Gilovich et al., 1998; Gilovich et al., 2000; Savitsky et al., 2001). As a result, people base their predictions of how noticeable their internal states, experiences, or appearances are to others not on the actual feedback from others, but on their own knowledge of themselves (Gilovich et al., 1998; Gilovich et al., 2000; Savitsky et al., 2001).

In addition, Chambers and colleagues (Chambers, Epley, Savitsky, & Windschitl, 2006) have demonstrated that people sometimes take into account private information about themselves (i.e., information known to them but not to others) when trying to predict others' impressions of them. This private information influences people's self-perceptions, which people then use to make predictions of how the others may judge them (Chambers et al., 2006). As a consequence, when people have information about themselves that is positive (negative), they expect to be judged favorably (unfavorably) by others even when it is clear that others have no access to that information.

To sum, people tend to focus on their own self-views and self-knowledge and ignore other relevant sources of information when estimating the impressions of others. The research findings just described are closely related to my predictions of how moods will affect the actors' estimates of how the audience may judge them. Research by Chambers and colleagues (2006) is especially relevant to my hypothesis: I argue that transient moods will color people's self-views,

and that people will subsequently use these mood-influenced self-views to predict how others may regard them. This process may occur even when people's moods are not relevant to others' likely views of them and thus should be disregarded by people when they estimate others' impressions.

### **Anchoring and Adjustment in Perspective Taking**

So far, I have described some examples illustrating that people tend to commit judgment errors when they estimate how others regard them. But what are the cognitive mechanisms that contribute to these errors in perspective taking? One such mechanism is the anchoring and adjustment heuristic, which is used to estimate the frequency or probability of an event (Tversky & Kahneman, 1974). When people use this heuristic, they first select a readily accessible value or concept as an "anchor" (their first guess or approximation of the actual probability) and adjust from it to estimate the true value. The adjustment stops when one arrives at a conclusion that seems plausible. However, a large amount of research shows that the adjustment process tends to be insufficient, often leading to inaccurate conclusions (Tversky & Kahneman, 1974).

Some researchers argue that people tend to rely on this anchoring and adjustment heuristic when predicting the opinions of others (Epley, Keysar, Van Boven, & Gilovich, 2004). When inferring what others may think, people anchor on their own perspective and then try to adjust towards the perspective of others, which they recognize as possibly different from their own (Epley et al., 2004). However, as with other judgments, the adjustment process tends to be insufficient, such that the imagined impression of others may resemble one's own perspective too closely.

One of the reasons that people often anchor on own perspective is the tendency to encode events in terms of self-relevant information. Thus, people usually possess more knowledge about their internal states than about others' internal states (Greenwald, 1980; Ross & Sicoly, 1979).

So, self-relevant information should be present in memory in greater quantities than other types of information, and as a consequence, people are especially likely to select self-relevant information as an anchor when engaging in perspective taking (Epley et al., 2004). Once an anchor (e.g., self-perspective) is selected, people make adjustments to infer the others' perspectives. However, such adjustments often tend to be insufficient, because complex judgments require considerable cognitive resources, and these resources are often limited. As a result, people often stop short from adequately adjusting towards the perspective of others, a phenomenon called "satisficing" (Epley et al., 2004). Due to this insufficient adjustment, people's estimates of others' perspectives often resemble their anchor—their own perspective.

The tendency to use the anchoring and adjustment process may help explain systematic biases that occur when people attempt to take others' perspectives. For example, people tend to overestimate the extent to which others share their attitudes, beliefs, and knowledge, a phenomenon known as the "false consensus effect" (Fenigstein & Abrams, 1993; Krueger & Clement, 1994; Ross, Greene, & House, 1977). It is easy to imagine that when one believes that others share his or her views, one may expect the others' impressions of the self to be highly similar to one's own view of the self.

To summarize, people often commit judgment errors when attempting to infer others' perspectives, and one of the main reasons for this is the tendency to anchor on one's own preexisting views on a given subject matter (e.g., self). Building on these earlier findings, I argue that people in different mood states will anchor on their mood-influenced self-views and will use these views to infer how others regard them. I predict that people's conclusions about how they are regarded by others will be colored by their mood states, even when it is clear that those mood states are irrelevant to the viewpoints that others are likely to have about them.

Given that people anchor on their mood-influenced self-views to infer others' opinions, one more question remains to be discussed: how will moods affect people's self-views?

### **Models of Mood Effects on Judgments**

Previous research demonstrates that moods have a pervasive effect on all aspects of the judgment process. Researchers studying moods discovered that the latter determine the cognitive representations of various events in memory, influence the appraisal of social situations and people's reactions to them, and affect evaluations of self and others (Bower, 1991; Forgas & Smith, in press). The overarching finding in this area of research is that moods tend to influence judgments in an assimilative fashion: positive moods lead to more positive judgments, while negative moods lead to more negative judgments (Bower, 1991; Forgas & Smith, in press). As a result, people in different moods may have different evaluations of the same target that are consistent with their current mood state (Forgas & Smith, in press). However, moods will not always influence judgments (Forgas, 1994). Several explanations as to how, and when, affective states permeate social judgments follow.

Theories of mood effects on judgments fall into three categories: priming models, misattribution models, and various hybrid models (Forgas & Bower, 1988). The associative network theory offered by Bower (1981) explains the effect of moods on judgment in terms of the mood-priming (influence of exposure to a given mood state on subsequent thoughts and judgments) and subsequent activation of mood-congruent information from memory. According to Bower's model, each situation or concept is represented in memory in a form of specific instances (nodes) linked by associative connections. Emotions experienced when encountering a particular situation (or a concept) are connected to it and become activated whenever that situation (concept) is activated in memory. However, these emotions may in turn be linked to other information that is completely unrelated to the given situation (concept) and may influence

one's judgments about that information nonetheless. For example, if a student fails a test and feels bad about it, her negative mood may activate other instances when she felt bad. Thus, if she also happens to dislike rainy days, her knowledge about rainy days may become activated. If that student is next asked to predict whether it will rain the next day, she is likely to answer affirmatively. In this example, failing a test has nothing to do with predicting weather, but it may influence it nonetheless through the connection of both events to negative mood.

This mechanism helps explain how moods may affect evaluations of self and others. Sad or happy moods prime mood-congruent constructs that people use to interpret ambiguous gestures, speech, actions, and situations (Bower, 1991). For example, Forgas and Moylan (1988) approached viewers of happy or sad films outside movie theaters and asked them to complete a brief public-opinion questionnaire. They found that viewers of happy films tended to be more lenient and optimistic in their judgments than viewers of sad films (Forgas & Moylan, 1988). The researchers hypothesized that the moods induced by watching happy and sad films influenced viewers' judgments by predisposing them to "access mood-congruent categories" and thus to interpret the given information (the questions in the survey) in a manner consistent with their current mood (Forgas & Moylan, 1988, p.474)

Schwarz and Clore (1988) offer another model of mood effects on judgments. In their misattribution model, they treat mood as a heuristic used to infer how one feels about the situation at hand. They suggest that when people are aware of their affective states, these states can be used as a source of information about their reaction to the target of the judgment. This model implies that moods caused by events unconnected to the current situation (or object) can be mistakenly used to interpret this situation (or object), but only when they fail to be attributed to their actual cause or source (Schwarz & Clore, 1988).

To reconcile the findings of the two types of models discussed above, misattribution and priming models, Forgas (1994) offers a hybrid model that he calls the “affect infusion model” (AIM). The model operates on two assumptions. The first assumption is that mood is most likely to influence cognition and subsequent judgments when people use complex information processing strategies that require elaboration. Such strategies are most likely to be employed when people are faced with a novel or ambiguous object or situation that requires extensive thinking and interpretation. The second assumption is that people seek effort-minimizing and simple processing strategies to reach conclusions, and that using one’s mood is an efficient strategy for making complex judgments (Forgas, 2001). Therefore, this model expands upon the mechanisms offered by Schwarz and Clore’s and Bower’s models by suggesting that moods will not always influence judgments, and by specifying the conditions under which the moods will have a chance to do so.

The three models just described provide a basis for my hypothesis regarding the influence of mood on self-perceptions. According to Bower’s (1991) model, people’s moods will prime mood-congruent concepts, which may lead people to interpret their own behaviors more positively or negatively. How positively or negatively the people interpret their own behavior should (according to the model) depend on their mood states at the time of forming predictions about others’ impressions. In addition, the findings of Schwarz and Clore (1988) suggest that when people are explicitly aware of their current moods, they may use these moods to interpret their feelings about themselves at the moment. This would also lead to assimilative effect of people’s moods on their self-judgments, and, consequently, on their predictions of others’ impressions of them. Moreover, according to the AIM, the more ambiguous and uncertain the others’ views of the self are in a given situation, the greater the chance that one’s mood will

permeate judgments about how the self is viewed by others in that situation. Overall, all three models would generate similar predictions regarding my hypothesis. All three models predict that mood will influence judgments, and I predict that mood will influence perceptions of own social intelligence and performance.

The research reviewed above lends support to my hypothesis in a number of ways. First, my assumption that moods may affect people's self-views is consistent with the current models of the influence of mood states on judgments (Forgas, 1994, 2001; Forgas & Smith, in press; Schwarz & Clore, 1983, 1988). Second, previous research on impression estimates supports my assumption that people will use their self-views when trying to infer how others regard them (e.g., Epley et al., 2004; Kenny & DePaulo, 1993). Third, the research findings on egocentric anchoring and adjustment support my assumption that people will fail to adequately adjust from their own self-views when predicting the others' opinions of them (e.g., Epley et al., 2004; Tversky & Kahneman, 1973). Although the reviewed research is clearly suggestive, it is still unclear whether the impressions that people anticipate from others may be influenced by their private moods, or whether they are able to detach from these moods and reach more accurate conclusions about others' impressions of them.

## CHAPTER 2 STUDY 1

### **Introduction**

Study 1 served as a test of my hypothesis that transient moods influence people's predictions of how they will be judged by others. In study 1 I investigated this hypothesis in a paradigm in which participants' transient mood states were manipulated by presenting them with bogus positive or negative feedback about their performance on a novel task. I expected participants to be in a more positive mood after receiving favorable feedback on the task than after receiving unfavorable feedback. I also expected that participants in the no feedback condition would not experience any significant changes in their mood. After the mood manipulation, the experimenter presented participants with several social scenarios describing either undesirable social situations, such as triggering an alarm at the library in view of others, or desirable social situations, such as giving a successful class presentation. Participants were then asked to predict how a hypothetical audience might regard them in each of the scenarios. Even though participants' mood states were not relevant to how they would be regarded by others in the social scenarios (and thus should have been disregarded), I expected these mood states to influence participants' expectations of the others' judgments of them in each scenario. Specifically, participants in a positive mood should expect more favorable evaluations from others across the various scenarios than participants in a negative mood.

### **Method**

#### **Participants and Design**

Participants were 92 University of Florida students recruited from the introductory psychology class. They took part in the experiment in exchange for credit towards a research exposure requirement. The design of the study was a 3 (feedback condition: positive versus

negative versus neutral) x 2 (social scenario: desirable versus undesirable) factorial, with mood as a between subjects factor and scenario as a within-subjects factor.

### **Procedure and Materials**

Participants took part in the groups of up to five people, and all the materials were presented to them via personal computers. On arrival at the laboratory, participants were told that they would be completing 3 separate studies. In reality, there was only one study broken down into three components: mood manipulation, social scenarios, and mood assessment. These components were presented as independent studies to disguise the real purpose of the experiment and to avoid the possibility of participants guessing the connection between the parts. Participants were randomly assigned to complete these three components in one of two orders: some completed the mood assessment before the other two components, and some completed it after.

The purpose of manipulating the order of the mood assessment was twofold. First, by comparing the mood states of participants before and after the mood manipulation, I was able to use the “before” group’s mood states as a natural baseline for determining whether the mood manipulation raised or lowered the “after” group’s moods relative to this baseline. Second, by including a condition in which moods were assessed following the manipulation, I avoided a situation in which participants’ responses to the primary dependent measures (i.e., the social scenarios) could be reactive to their earlier responses to the mood assessment instrument. A description of each component follows.

#### **The spatial ability task**

For the mood manipulation, participants completed the “spatial ability task,” introduced as a subscale of a popular intelligence test. Participants were told that the spatial ability task assessed their imaginative abilities and creativity (see Appendix A for the instructions and

several exemplar trials of the test). In reality, this task was created by the experimenter. Instructions explained that the task consisted of two practice trials and 15 test trials, and each trial had two parts: stimulus presentation and stimulus identification. In the stimulus presentation part, a geometrical shape (target stimulus) appeared on the screen for .30 seconds. In the stimulus identification part, the target stimulus appeared alongside two distractor stimuli, which were geometrical shapes similar to, but not exactly like, the target stimulus. Participants' task was to correctly identify the target stimulus by clicking on a button underneath that stimulus. Participants had an unlimited amount of time during stimulus identification.

After participants completed the spatial ability task, they were randomly assigned to receive one of the three types of feedback about their performance: those in the positive feedback condition learned that they did well (90<sup>th</sup> percentile of all students who took the test), those in the negative feedback condition learned that they did poorly (40<sup>th</sup> percentile), and those in the no-feedback control condition were told that they would receive feedback about their performance at the end of the study (see Appendix A for the exact wording of this feedback).

## **Scenarios**

Following the completion of the mood manipulation component, participants were presented with several social scenarios. The scenarios component was presented to participants as a separate study examining their imaginative abilities and memory. There were a total of five scenarios used in this study, each describing a protagonist engaging in a behavior in front of an audience. Three of the scenarios consisted of descriptions of undesirable social situations, such as triggering the alarm at the library in view of others (these were borrowed from Savitsky et al., 2001). The remaining two scenarios consisted of descriptions of desirable social situations, such as giving a successful class presentation. All participants saw the scenarios in the same order,

with negative scenarios presented first. Full descriptions of all 5 scenarios can be found in the Appendix B.

For each of the social scenarios, participants were asked several questions. The first question assessed how favorably or unfavorably the hypothetical audience might regard the *participants themselves* (i.e., irrespective of their actions) in each scenario. The second question assessed whether the audience in each scenario formed a good or a bad impression of the participant based on the *participants' actions*. In addition, participants were asked whether they had ever experienced situations similar to the ones described in the scenarios, and how desirable or undesirable these situations seemed to them and might seem to others. Participants responded to each question on a 0 (not at all/completely undesirable) to 10 (virtually certain/very desirable) scales (See Appendix B for the complete set of these questions).

### **Mood assessment**

The mood assessment component of the study was presented to participants as a measure of personality characteristics related to imaginative ability and memory. In this component, participants completed the Positive Affect/Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988), which is a well-validated scale designed to measure transient as well as more prolonged moods. In this study, the instructions for the assessment of “current” moods were used. Participants were presented with ten positive (i.e., interested, active) and ten negative (i.e., distressed, afraid) affective states and rated the extent to which they were experiencing those states at the moment on a scale from 1 (very slightly or not at all) to 5 (extremely).

In addition to mood scores obtained from the PANAS, participants were asked how they felt about their performance on the spatial ability task. This question served as an additional manipulation check to ensure that the feedback participants received about their performance on the task influenced their moods as intended.

## **Results and Discussion**

In both Study 1 and Study 2, there were no differences in participant's responses in respect to gender. Therefore, gender will not be discussed further. My predictions for Study 1 were that participants' moods would be influenced by the feedback they received on the spatial ability task and that these moods would lead to differences in participants' predictions about how others may judge them in various social scenarios. Specifically, I hypothesized that participants exposed to the positive test feedback would expect more favorable evaluations from the audience than participants exposed to the negative test feedback (with participants who received no feedback falling somewhere between these groups).

### **Manipulation Check**

Because my hypothesis relied on the differences in participants' moods, I first examined whether the mood manipulation was successful. First, to determine whether there was adequate internal reliability in the mood assessment scale, I computed Cronbach's alphas for participants' responses to the Positive Affect and Negative Affect subscales of PANAS. Responses on these two subscales were analyzed separately, because past research has found that positive and negative moods are distinct and non-overlapping constructs (Watson et al., 1988). Responses on the Positive Affect and Negative Affect subscales showed high internal reliability (Cronbach's  $\alpha = .87$  for each subscale), and thus were averaged to create indices of positive and negative mood.

If the mood manipulation had a desired effect on the participants' moods, there should be a significant interaction between the feedback and the order conditions. In other words, the mood scores reported by the participants who completed the PANAS first (and before the mood manipulation) should not differ as a function of the performance feedback they received. On the other hand, the mood scores reported by the participants who completed the PANAS last (and after the mood manipulation) should differ as a function of the feedback they received: those

who received positive feedback should report more positive moods and less negative moods than those who received negative feedback or no feedback. To test this prediction, responses to the two subscales were analyzed separately in a 3 (feedback condition) x 2 (order condition) ANOVA. The expected interaction was indeed observed for the positive mood subscale of the PANAS,  $F(2, 86) = 3.13, p < .05$ , but not for the negative subscale,  $F < 1$ .

Next, I conducted the simple effect tests for each order condition. Participants who completed the PANAS as the last part of the study showed significant differences in their moods. As expected, those who received favorable performance feedback reported more positive moods ( $M = 2.86$ ) than those who received unfavorable performance feedback ( $M = 2.01$ ),  $t(42) = -3.74, p < .01$ , or no feedback ( $M = 2.16$ ),  $t(37) = 2.74, p < .01$ . In addition, participants who received unfavorable performance feedback reported more negative moods ( $M = 1.54$ ) than those who received favorable performance feedback ( $M = 1.22$ ),  $t(42) = 2.32, p < .05$ . Among those who completed the PANAS first, however, there were no differences in reports of the positive or negative moods between participants in the negative feedback ( $M = 2.27$ ), positive feedback ( $M = 2.32$ ), and no feedback ( $M = 2.30$ ) conditions,  $ts < 1$  (See Table 2-1).

Thus, the mood manipulation was partially successful in altering participants' temporary mood states, with participants who received positive feedback about their performance reporting more positive moods than participants who received negative or no feedback.

### **Anticipated Scenario Ratings**

To analyze participants' anticipated audience impressions, I correlated responses to the two questions asking about audience's possible impressions of the actor for each scenario. Within each of the five scenarios, these ratings were highly correlated, with  $r$ s ranging from .63 to .81. Thus, I computed an average anticipated evaluation index for each of the five scenarios. The means on the anticipated evaluation index were not significantly correlated for the three negative

and two positive scenarios and therefore were analyzed separately. These means are shown in Table 2-2 by the three feedback conditions. The only significant difference in scenario ratings as a function of the performance feedback condition was found between the positive and negative feedback conditions in the “found item” scenario: participants who received positive feedback expected to be regarded more favorably by the audience than participants who received negative feedback:  $t = 2.09, p < .05$ . All other comparisons failed to reach significance,  $t_s < 1$ . Thus, contrary to my hypothesis, those who were in a negative mood state (negative feedback condition) did not consistently expect to be judged any more harshly by the audience than those who were in a positive mood state (positive feedback condition) or in a neutral mood state (control condition).

In addition, I conducted a multivariate analysis of variance (MANOVA) with feedback (positive, negative, or neutral) as a between-subjects factor and scenario (library alarm, dinner party, shopping, found item, and class presentation) as a within-subjects factor. There was no main effect of the feedback condition for either order,  $F_s < 1$ .

### **Scenario Desirability Ratings**

To verify that the desirable scenarios were truly regarded more favorably than the undesirable ones, I compared responses to the question about how desirable or undesirable the participants personally considered the behaviors described in each scenario (Table 2-3). Participants correctly discriminated between scenarios involving desirable and undesirable behaviors. The average desirability ratings were greater for the positive scenarios than for the negative scenarios ( $M = 8.64$  and  $M = 3.51$ , respectively),  $t(54) = 17.92, p < .001$ .

However, the analysis of variance (ANOVA) on the desirability ratings did not differ as a function of the feedback condition for any of the scenarios with the exception of the “shopping” scenario, for which the desirability ratings in the positive feedback condition were significantly

higher than those in the no feedback condition,  $t(37) = 2.51, p < .05$ . Thus, participants' mood states did not affect their views of the perceived desirability of the behaviors.

Because the moods induced in Study 1 did not produce the expected differences in anticipated impressions, in Study 2 I tested my hypothesis in a different research paradigm. Perhaps the mood manipulation used in Study 1 was not sufficiently powerful to produce affective states strong enough to influence participants' anticipated audience impressions. In addition, the imaginary scenarios could have been regarded as relatively unimportant, in the sense that these situations did not happen in reality and thus could not involve participants to the same degree as a real evaluative situation might. Also, the scenarios were relatively unambiguous: the actor's behavior in each scenario was clearly positive or negative, and therefore the audience's reactions were relatively easy to infer. Because ambiguity might be an important precondition for private moods to influence anticipated impressions, in the second study I used a more ambiguous situation in which the audience's possible impressions were not immediately apparent. I also used a manipulation that could produce stronger mood differences and a realistic evaluative setting that was probably seen as more relevant and involving by the participants.

## Tables

Table 2-1. Mean mood scores as a function of order and feedback conditions.

Subscale	Order	Feedback		
		Positive	Negative	No Feedback
Positive	PANAS first	2.32 <sub>a</sub> (.47)	2.27 <sub>a</sub> (.69)	2.30 <sub>a</sub> (.24)
	PANAS last	2.86 <sub>a</sub> (.74)	2.01 <sub>b</sub> (.69)	2.16 <sub>c</sub> (.64)
Negative	PANAS first	1.38 <sub>a</sub> (.43)	1.63 <sub>a</sub> (.71)	1.30 <sub>a</sub> (.38)
	PANAS last	1.22 <sub>a</sub> (.30)	1.54 <sub>b</sub> (.62)	1.49 <sub>ab</sub> (.76)

Note. Standard deviations are included in parentheses. Higher ratings indicate more positive moods. Means in the same row sharing the same subscript are not significantly different.

Table 2-2. Mean anticipated impressions for each scenario as a function of feedback condition.

Scenario		Feedback		
Type	Name	Negative	Positive	Neutral
	Library Alarm	4.73 (2.30)	5.68 (2.73)	5.52 (2.57)
Negative	Dinner Party	5.02 (2.04)	5.34 (1.72)	5.44 (2.17)
	Shopping	4.89 (2.73)	4.72 (2.35)	5.74 (2.78)
Positive	Found Item	8.23 (1.58)	8.92 (1.13)	8.57 (1.51)
	Class Presentation	7.75 (1.48)	7.91 (1.61)	8.17 (1.43)

Note. Higher ratings indicate more favorable anticipated impressions. Standard deviations are included in the parentheses.

Table 2-3. Mean ratings of desirability of behaviors described in the scenarios.

Scenario		Feedback		
Type	Name	Negative	Positive	Neutral
	Library Alarm	2.50 (2.53)	2.54 (2.27)	2.73 (2.05)
Negative	Dinner Party	3.13 (1.86)	3.57 (1.97)	3.55 (2.07)
	Shopping	4.50 (1.90)	4.89 (1.37)	3.64 (1.50)
Positive	Found Item	8.19 (1.38)	8.57 (1.29)	7.64 (2.73)
	Class Presentation	8.69 (1.25)	9.29 (1.24)	8.73 (2.97)

Note. Higher ratings indicate greater desirability. Standard deviations are included in the parentheses.

## CHAPTER 3 STUDY 2

### **Introduction**

Study 2 served as a conceptual replication of Study 1, testing the same predictions but using a different experimental paradigm. In this study, I manipulated participants' transient moods by asking them to describe either happy or sad news events, or in a third condition, describe something that should evoke a neutral mood state. Previous research suggests that thinking about stories depicting sad or happy events proves to be an effective mood induction technique (Westermann, Spies, Stahl, & Hesse, 1996). Participants were randomly assigned to write about a sad or a happy news event, or to describe a neutral object. Instead of being asked to write about a specific, pre-selected event within each condition, participants had a chance to recall any news event that made them feel particularly sad or happy.

Following the mood manipulation, participants completed a test that presumably measured their social intelligence. Participants' performance on the test was videotaped, purportedly to be shown to other students later on in the semester. After completing the test, all participants received the same bogus feedback indicating an average performance. Afterwards, participants were asked to predict how the students watching the videotape of them taking the test would judge their performance and social intelligence. The mood states elicited by recalling the sad/happy news events were clearly irrelevant to participants' predictions of how others may regard their performance on the test. However, I predicted that these mood states would nonetheless influence participants' predictions in an assimilative fashion. Thus, participants who recalled a happy news event should have expected more positive evaluations from others than participants who recalled a sad news event.

Although my hypothesis suggests that the effect of private mood states should be specific to people's anticipated audience impressions (and their own self-view), there is an alternative explanation for the hypothesized findings. It could be that a general and not situation-specific mood effect is responsible for the predicted findings. To separate the hypothesized specific influence of transient moods on anticipated impressions from this general mood effect, two additional dependent measures were used in this study: questions about likelihood of various positive and negative events (e.g., downfall of economy) and a self-esteem measure.

## **Method**

### **Participants and Design**

Participants were 25 University of Florida students recruited from the introductory psychology class. They took part in the experiment in exchange for credit towards a research exposure requirement. The design of the study was a 3 (mood: sad vs. happy vs. neutral), with mood as a between subjects factor.

### **Procedure and Materials**

Only one participant was tested in each session. The study had three components: mood manipulation, social perception task, and mood assessment. After participants arrived to the lab, the experimenter told them that they would participate in three short studies concerning intelligence and memory combined in a single session for efficiency purposes. Each of the components is described next.

### **Mood manipulation**

Participants were randomly assigned to one of three conditions and were told that a group of researchers were creating a "recent events inventory". The experimenter explained that participants' task was to describe either a sad (sad mood condition) or a happy (happy mood condition) recent news event in as much detail as possible. Participants in the neutral condition

were told that they were contributing to the development of a “typical objects inventory” and would be asked to describe in detail a typical object (a car). The instructions indicated that participants needed to mention and describe as many features of a typical car as possible. See Appendix D for the specific instructions given to participants.

### **The social intelligence test**

In this component of the study participants learned that they would be taking a novel test presumably measuring their “social intelligence.” They were told that social intelligence was “an important trait that is related to a person’s ability to successfully navigate and cooperate in a variety of social situations.” Prior to administering the social intelligence test, the experimenter read a set of instructions concerning the procedures of the test. These instructions explained that the test consisted of a set of 20 trials, and on each trial, the participant would see a card with pictures of four adult faces on it. The experimenter indicated that one of the people pictured on each card was portraying an “insincere emotion,” meaning that the person was either told a funny joke or a sad story and then was asked to maintain a neutral facial expression when his or her picture was taken (see Appendix C for the instructions for this test).

Next, participants were notified that their performance on the test would be videotaped and shown to other participants in a different study later on in the semester. After receiving the participant’s verbal consent to be videotaped, the experimenter turned on a video camera and pointed it at the participant. The resulting recordings were erased after each session and were not used in this or any other studies.

Following the explanation of the procedure of the test and after turning on the camera, the experimenter showed each of the cards in succession to the participant. The participant was asked to identify the person portraying an insincere emotion on each card by pointing to the picture of that person. After the participant made each response, the experimenter verbally

indicated whether the response was correct or incorrect and noted the response on a scantron in participant's view. In addition, the experimenter sorted the cards into "correct" and "incorrect" piles to help participant keep track of his or her performance. The feedback given on any trial was predetermined, and the same feedback was given to all participants. After completing the test, all participants learned that they guessed correctly on 12 out of 20 trials.

### **The dependent measures**

After providing participants with the scoring information, the experimenter turned off the camera and introduced the third component of the study. Participants were told that the researchers would like to learn about their experiences with, and impressions of, the social intelligence test. The experimenter next distributed a questionnaire containing all of the dependent measures of this study. The critical dependent measures asked participants how socially intelligent they would be judged by the students watching the videotape and how impressed these students would be with their performance (see Appendix E for the full set of these questions). Following these questions, participants were asked to estimate the likelihood of various events (e.g., the occurrence of an earthquake) (Appendix F).

In addition, at the end of the study participants filled out a brief measure of mood <sup>1</sup> (see Appendix G) and Rosenberg's self-esteem scale that measures one's general outlook on the self (1965). They were also asked how writing about a news event made them feel. Some of the mood adjectives and general statements used to assess positive and negative affect were adapted for this study from previous research on moods (Feldman Barrett & Russell, 1998). Instructions preceding the adjectives and statements were added by the experimenter.

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<sup>1</sup>Recently, Positive Affect and Negative Affect scales of the PANAS were found to measure activation (how active or passive one feels at the time) more so than mood. Because activation does not characterize a type of mood (i.e., one can be in an active good mood state, such as elation, or in an active bad mood state, such as fury) the PANAS was not the most

## Results and Discussion

I hypothesized that in Study 2 participants' moods would be influenced by the sad or happy news events that they wrote about, and that as a result, participants would generate different predictions about how others would regard their performance on the social intelligence test. I suggested that this would happen even though participants' test scores would be identical in all conditions. I specifically predicted that participants in a good mood would expect more favorable judgments from others than participants in a bad mood, with participants in a neutral mood falling in-between. I also suggested that participants would regard their scores differently as a function of their moods: participants in a good mood would be more satisfied with their scores than participants in a bad mood. I hypothesized that this mood effect would be specific to participants' judgments of their performance on the social intelligence test, and would not influence their general judgments of likelihood of various events or their global feelings about themselves, such as self-esteem.

### Manipulation Check

As a first step in analyzing the data, I examined whether the mood manipulation was successful in influencing participants' mood. To test this, I compared participants' responses to the question assessing how they felt about the news event that they wrote about in a one-way analysis of variance. I found an expected main effect of mood,  $F(2, 22) = 44.55, p < .001$ , with participants in the sad mood condition reporting less positive mood ( $M = 3.80$ ) than participants in the happy mood condition ( $M = 6.00$ ),  $t(15) = 2.82, p < .05$ . Thus, writing about sad and happy news events influenced participants' moods in a predicted fashion.<sup>2</sup>

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suitable mood measure for my purposes (Feldman Barrett & Russell, 1998). As I was interested in measuring specifically positive and negative moods, another mood measure was used in place of the PANAS.

<sup>2</sup>These results were generally consistent with another mood measure I used. That

## Anticipated Performance and Intelligence Ratings

I next tested whether participants' moods influenced their expectations of how others would judge their performance and ability on the social intelligence test. To do so, I correlated participants' responses to the questions about how favorably the audience would regard their performance, how impressed the audience would be with their score, how socially intelligent the audience would judge them, and how many students would be considered more socially intelligent than them (questions 1-4 of the main questionnaire, Appendix E). I first converted each participant's responses to these four questions into z scores, because one of the questions was on a different scale than the remaining three. The responses to these four questions were highly correlated with each other (Cronbach's  $\alpha = .83$ ), and I averaged them into a single anticipated impressions index (see Table 3-1). Higher scores on this index indicate more favorable anticipated impressions.

To compare the anticipated impressions of participants in happy, sad, and neutral mood conditions, I conducted a one-way analysis of variance, with the anticipated impressions index as the dependent variable and mood condition as an independent variable. There was a main effect of the mood condition,  $F(2, 24) = 5.40, p < .05$ . Participants in the happy mood condition expected more favorable anticipated impression from the students watching their performance than did participants in the sad mood condition,  $t(15) = 3.59, p < .01$ . In addition, participants in the happy mood condition also expected somewhat more favorable anticipated impressions than participants in the neutral mood condition,  $t(13) = 1.79, p < .10$ . Thus, participants in different moods had different expectations about the audience's evaluations of their performance on a test,

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measure was constructed from items suggested by Feldman Barrett & Russell (1998). In their study, the positive-negative affect mini scales adapted as a mood measure in Study 2 demonstrated adequate convergent validity ( $r = .56$  for the first 6 adjectives, and  $r = .86$  for the five last statements). Participants were asked to rate to what degree they felt happy, content, etc.,

even though objectively, they should have had the same expectations because they received the same score on the test.

It is possible that participants' moods influenced how they regarded their own performance, and they projected these feelings about own performance onto their audience when anticipating the audience's impressions. To test whether participants' evaluations of own performance differed as a function of the mood condition, I compared participants' responses to the questions about how satisfied they were with their scores on the test, and how socially intelligent they felt in general, using analysis of variance (see Table 3-1). There was a main effect of the mood condition on participants' general feelings about their social intelligence,  $F(2, 25) = 9.02, p < .01$ . The effect of the mood condition on participants' satisfaction with their score on the social intelligence test was marginally significant,  $F(2, 25) = 2.77, p < .09$ .

The tests of simple effects revealed that participants in the happy mood condition were more satisfied with their scores on the social intelligence test than participants in the sad mood condition,  $t(15) = 2.07, p < .06$ . Participants in the neutral mood condition fell somewhat in-between the other two groups, and did not differ significantly in their satisfaction with their score from either participants in the happy mood condition,  $t(14) = 1.64, p < .20$ , or participants in the sad mood condition,  $t < 1$ . Additionally, participants in the happy mood condition also considered themselves to be more socially intelligent than did participants in the sad mood condition,  $t(15) = 2.51, p < .05$ . Participants in the neutral mood condition considered

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(see Appendix G) and their responses on that measure were tested for internal reliability. Because the analysis demonstrated an adequate reliability of this mood scale (Cronbach's  $\alpha = .87$ ), I averaged all its items into a mood index. To do that, I first reverse-coded the items measuring sad mood and next averaged them together with items measuring happy mood. Next, I conducted a one-way analysis of variance with the mood index as a dependent variable and mood condition as an independent variable. The effects on the mood index were less pronounced than those on a single-question manipulation check measure,  $F(2, 25) = 1.29, p < .30$ .

themselves to be more socially intelligent than participants in the sad mood condition,  $t(17) = 5.48, p < .001$ , but did not differ in their ratings from participants in the happy mood condition,  $t < 1$ .

It seems that participants' private moods influenced both their predictions of how others would regard their performance on a test, and their own opinions about their performance, even though these moods were completely unrelated to the social intelligence test that participants took. The private moods influenced participants' anticipated impressions and evaluations of own performance and social intelligence in an assimilative fashion, with participants who were in a good mood expecting more favorable anticipated impressions than participants who were in a bad mood. Therefore, it is possible that private moods influenced participants' views of their performance, which they then projected onto their audience. As a result, their anticipated impressions became influenced by their private moods.

### **Testing Alternative Accounts**

Although the findings presented above support the initial hypothesis, there still remains an alternative explanation for the observed effects. It could be that participants' private moods had a general influence on all their judgments and not solely on their impressions about their performance on the test and their resulting predictions of anticipated audience impressions. Should that be true, participants' predictions of likelihood of various events should also be influenced by their moods. I tested this possibility next.

I first correlated participants' responses on the two items of interest: their predictions about the future of economy and a possibility of an earthquake in California.<sup>3</sup> These items were not

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However, the effects were generally consistent with those of that prior analysis, with participants who wrote about a happy news event reporting better moods ( $M = 4.29$ ) than participants who wrote about a sad news event ( $M = 3.96$ ),  $t = 1.41, p < .20$ .

<sup>3</sup> There was no consistent pattern for the remaining four judgments of likelihood items.

correlated with each other, so I analyzed the responses on each of them separately (see Table 3-2). The analyses of variance revealed that there was no main effect of mood for either question,  $F_s < 1$ . Participants in the happy mood condition thought an earthquake was just as likely to happen as participants in the sad mood condition,  $t < 1$ . Participants in the neutral mood condition were somewhat more likely to predict an earthquake to occur than the other two groups, but the comparisons with happy- and sad mood condition groups failed to reach significance,  $t(14) = 1.16, p < .30$  and  $t(17) = 1.70, p < .20$ , respectively. Similar results were obtained for the question about the future of economy: participants in the happy mood condition thought the economy was just as likely to suffer as participants in the sad mood condition,  $t < 1$ . Participants in the neutral mood condition provided similar predictions as those in the happy and sad mood conditions,  $t < 1$  and  $t(17) = 1.25, p < .30$ , respectively.

### **Self-esteem Judgments**

As an additional check on whether the effects of mood observed in Study 2 were specific to the participants' self-views and anticipated audience impressions of their performance, I compared their self-esteem scores by the mood conditions. First, I assessed the internal reliability of the Rosenberg self-esteem scale. Because it was high (Cronbach's  $\alpha = .82$ ), I averaged the ten items of that scale into a self-esteem index (see Table 3-2). I then analyzed participants' responses on that index using analysis of variance. There were no differences in participants' responses on the self-esteem index,  $F < 1$ . Participants in a good mood reported similar self-esteem as participants in a bad mood, or participants in a neutral mood, all  $t_s < 1$ .

To sum, participants' moods influenced their impressions of own social intelligence and

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Participants in the happy mood condition ( $M = 6.71$ ) were as likely as participants in the sad mood condition ( $M = 6.70$ ) to predict that an average student's friendship will last a lifetime,  $t < 1$ . Relative to participants in the sad mood condition, those in the happy mood condition were less likely to expect never having a lasting romantic relationship ( $M = 4.6$  vs.  $M = 2.3$ ),

their judgments of likelihood of general events or their self-esteem. Therefore, I infer that predictions of how the audience may regard their performance, but did not influence either participants' moods did not have a global effect on their judgments but were rather specific to their evaluations of own performance on the test and anticipated audience impressions.

## Tables

Table 3-1. Mean anticipated impressions and self-evaluations as a function of mood condition.

Mood Condition	Anticipated Impressions Index <sup>a</sup>	Score Satisfaction Rating	Social Intelligence Rating
Happy	.70 (.28)	6.29 (.64)	7.71 (.52)
Sad	-.44 (.22)	4.50 (.50)	5.90 (.40)
Neutral	.09 (.23)	5.11 (.52)	8.22 (.43)

Note. Higher ratings indicate more favorable anticipated impressions and evaluations. Standard deviations are included in the parentheses.

<sup>a</sup>Z-scores are reported.

Table 3-2. Mean estimates of likelihood of events and ratings of self-esteem as a function of mood condition.

Mood Condition	Estimates of Likelihood		Self-Esteem Ratings
	Earthquake Occurring	Economy Suffering	
Happy	5.29 (.81)	6.86 (.63)	3.25 (.19)
Sad	5.20 (.67)	6.80 (.51)	3.43 (.16)
Neutral	5.78 (.75)	6.11 (.58)	3.50 (.18)

Note. Higher ratings indicate greater likelihood of an event and higher self-esteem. Standard deviations are included in the parentheses.

$t(15) = 1.99, p < .07$ , more likely to expect having a good job after graduation ( $M = 7.20$  vs.  $M = 9.29$ ),  $t(15) = 2.77, p < .02$ , and less likely to think that the average student would win a large sum of money in the lottery ( $M = 3.00$  vs.  $M = 1.29$ ),  $t(15) = 3.06, p < .01$ .

## CHAPTER 4 GENERAL DISCUSSION

The two studies described in this paper aimed to explore whether people's transient mood states influence their anticipated impressions on an audience. The evidence from the first study did not support this hypothesis. Although the mood manipulation successfully altered the participants' mood states, these mood states failed to influence participants' estimates of how the audience might regard them in various social scenarios. This finding could have been observed for a number of reasons, the main one being insufficient involvement: instead of actively participating in an evaluative situation, participants were asked to imagine engaging in various behaviors in view of an audience only hypothetically. For example, instead of actually triggering a library alarm, a situation that most people would find embarrassing, participants were only asked to imagine what that experience would have been like. That could lead to very different predictions than it would if people were in the actual situation.

Therefore, it is possible that the imaginary situations used in the first study may not have been taken as seriously as real life situations would be, and the impressions of the imaginary audience did not appear important enough to be given any considerable attention. According to the AIM model by Forgas (2001), the more elaborate the cognitive process, the greater the chance that moods will influence judgments. If in the first study participants did not consider the scenarios at length and subsequently answered the questions about these scenarios without giving their answers much thought, their moods may not have had a chance to influence their judgments about what the audience may think of them.

An additional reason of why participants' moods failed to influence their judgments could be the obviousness of desirability (or undesirability) of behaviors described in the scenarios. This suggestion seems plausible given the desirability ratings that participants assigned to the

behaviors in the pleasant and unpleasant scenarios. All participants, independent of their mood, accurately recognized the behaviors in pleasant scenarios as desirable and those in the unpleasant scenarios as undesirable. Thus, it could be that the opinions of the hypothesized audience were so predictable in these scenarios that no consideration at length was necessary to determine what the audience may think of the actor. Again, the affect infusion model (Forgas, 2001) would support this suggestion: according to that model, the more ambiguous the target of the judgment and the more elaborate the cognitive process used, the more likely the mood is to influence that judgment. Because the situations used in the scenarios were obviously desirable (or undesirable) and not ambiguous, this could be the reason why participants' moods did not influence their anticipated impressions in the first study.

To address these possible problems of lack of involvement in the situation and of the obviousness of the desirability of the behaviors concerned, the Study 2 used a social evaluation situation that was both more involving and more ambiguous than the scenarios used in the first study. Instead of imagining a situation and predicting the impressions of an imaginary audience, participants completed a novel test in the lab and their performance was videotaped, which contributed to the impression of real (and not imaginary) future audience. Given the novelty of the test, and the absence of information about what an average performance on it would be, the score that participants received was difficult to interpret. Because the videotaping of their performance established a believable future audience, and because the ambiguity of the score should have elicited more effortful thinking about it, the Study 2 probably avoided the insufficient involvement and obviousness of desirability (or undesirability) of the task that constituted a problem in the first study.

The findings of Study 2 supported the hypothesis that people's private moods can influence their anticipated impressions on a task completely unrelated to the source of their mood. In Study 2, participants in a good mood expected more favorable impressions from an audience than participants in a bad mood. In addition, participants in a good mood also regarded their performance more favorably, and considered themselves to be more socially intelligent, than participants in a bad mood. Therefore, the second study provides evidence that private moods can be used as a source of information about one's own performance and about others' opinions about oneself. In addition, this finding is not simply another demonstration of a general mood effect on judgments. Rather, the second study illustrates that private moods can have specific effects on evaluations of one's performance and predictions of others' opinions about that performance. Private moods influenced participants' satisfaction with their score on the social intelligence test and their predictions of how favorably or unfavorably the other students would regard their score, but did not affect their general view of self or their predictions about the likelihood of various events.

In addition to demonstrating a new way in which moods can influence judgments, the findings described above also fit the existing theories of mood and its effects on cognition. Because performance on the novel task and the audience's possible evaluation of that performance were ambiguous in Study 2, participants likely used an elaborate strategy of processing information when predicting the audience's impressions. As predicted by the AIM, the more elaborate the cognitive process, the more likely the moods are to influence the resulting thoughts (i.e., Forgas, 2001). Thus, the null effect in Study 1 could arguably result from a lack of elaborate processing due to obviousness of the desirability of the behaviors used. Additionally, the findings of Study 2 demonstrated that as the task and the feedback became more ambiguous,

thoughts about the feedback elicited greater cognitive activity and resulted in mood-influenced judgments.

Besides being consistent with current mood models, the findings from Study 2 are consistent with current models of perspective-taking and egocentric anchoring and adjustment (Epley et al., 2004; Gilovich et al., 1998; 2000). Because participants' evaluations of own performance were similar to their anticipated impressions, it could mean that participants projected their self-views on their audience when estimating the audience's opinions about their performance. The possible mechanism here is that described by Epley and colleagues (2004): perspective taking can be thought of as egocentric anchoring and adjustment. According to that explanation, people may anchor on their self-views and then adjust to possible audience perspectives. Therefore, participants in Study 2 may have first anchored on their own views of their performance and intelligence (which were influenced by their moods) and then adjusted from these views towards the possible audience's evaluations of their performance and intelligence. However, this explanation should be regarded with caution because it was not directly tested in the two studies; therefore a direct test is needed to explore the suggested mechanism.

In addition to providing supplemental findings to the literature on moods and judgments, my findings are directly related to research on the egocentric use of private information conducted by Chambers and colleagues (2006). My hypothesis that people use their private mood states when predicting others' impressions is akin to their hypothesis of the use of private information about the self to anticipate others' impressions. In a way, private moods may even be regarded as one type of self-related information that people possess at the time of making a judgment. Specifically, in Study 2, when people imagined how the audience might regard their

performance, they possibly thought of how they themselves felt about it, and used that feeling as an indication of how well they performed. Thus, participants in a good mood at the time of the judgment probably decided that they performed well, while participants in a bad mood probably decided that they performed poorly. Participants possibly used these conclusions to predict how the audience might evaluate their performance.

Besides its theoretical importance to a number of judgment and mood theories, the finding that transient moods can influence people's anticipated audience impressions also has some practical applications. First, this finding has implications for the treatment of certain mood disorders, such as depression and social phobias. For example, people with depression who go through long periods of bad mood can possibly base their self-evaluations, and the resulting anticipated impressions from others, on how they feel about themselves. Because their moods tend to be predominantly bad, they may judge themselves harshly, and subsequently expect harsh evaluations from others (Layne, 1980; Showers & Ruben, 1990). For example, research by Layne (1980) shows that people with depression expect few rewards and many punishments, and undervalue praise from others. This could be the case because people with depression may often be in a bad mood and as a result may evaluate themselves negatively. Thus, they may decide that others regard them negatively as well and that the praise they receive from others is the result of politeness or just an ingratiation attempt. If these people could learn to identify their negative mood as a possible reason for their unfavorable anticipated impressions, they may learn to adjust from it, and as a result may expect more favorable evaluations from others. These expectations may in turn motivate these people to engage in social interactions more often (and with a more optimistic outlook). Having a greater number of (and possibly a better quality of) social interactions may improve the moods of people with depression and may even make them feel

better about themselves, which would lead to more favorable expectations, in essence creating better anticipated impressions.

Another application of the findings from the second study is in everyday life. Almost everyone can admit being under the influence of positive or negative moods at times. Therefore, it may be important for all people to take mood into account and stop to analyze the real reasons of their anticipated impressions. It may be that just because a woman is in a bad mood, she feels unattractive and expects the object of her affection to feel the same way. Thus, she may never ask that special someone out. On the other hand, when in a good mood, a man may have an especially bright outlook on self and expect others to have the same impression. Thus, he may volunteer his ideas at a meeting when it would be best to keep quiet. Being aware that people's private moods influence how they expect to be seen by others may help them avoid these situations and the regret and disappointment that go along with them.

## APPENDIX A SPATIAL ABILITY SCALE

### **Task Description:**

You are about to complete a popular subscale of Wechsler Intelligence Scale, the spatial task. The task assesses the part of intelligence called spatial ability. Spatial ability deals with visual information processing, speed, accuracy and consistency of focus, and efficacy of short-term memory.

It has been found that spatial ability is an important trait that is related to a person's ability to efficiently process and retain visual information and focus on relevant pieces of information. Spatial ability has been linked to successful performance in college, especially in areas that require creativity, ability to concentrate on and adapt to novel material, and ability to efficiently process information.

It has been found that spatial ability is also linked to memory-people high in this ability are better able to memorize novel material and to later recall it in greater detail, a skill very relevant for successful learning.

Scores on spatial task are linked to outstanding performance in college and later on in careers that require rapid creative thinking, accuracy and concentration, such as careers in physical and biological sciences, social sciences, and engineering.

### **Task Instructions:**

The Spatial Ability Task consists of 15 trials, and each trial has two parts. In the first part of each trial, you will be shown a geometrical shape on the screen for a very limited amount of time. In the second part of each trial, you will be shown a total of three shapes, one of which will be the shape you saw in the first part of the trial. Your task is to indicate which of the shapes was

the one that you saw in the first part of the trial. The shape that you saw in the first part of the trial may be rotated when presented along with two other shapes in the second part of the trial, but it will not be altered otherwise.

When you press the continue button, you will be presented with two practice trials, which will not count towards your score on the test. The trials will not be timed, so that you will have ample time to familiarize yourself with the test procedures. However, remember that in the first part of the actual 15 trials the shapes will be presented for a limited time only.

### **Types of Feedback:**

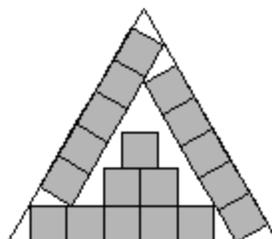
Positive: The computer has calculated your score. You scored on the 90th percentile. This means that you did better than 90 percent of the students taking this test. On this test, college students score on the 65th percentile on average.

Negative: The computer has calculated your score. You scored on the 40th percentile. This means that you did better than 40 percent of the students taking this test. On this test, college students score on the 65th percentile on average.

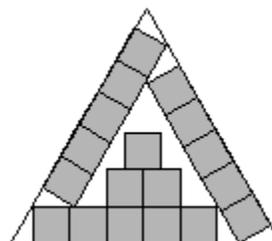
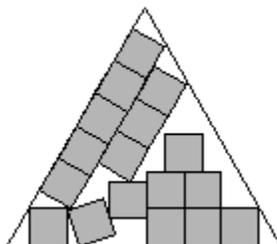
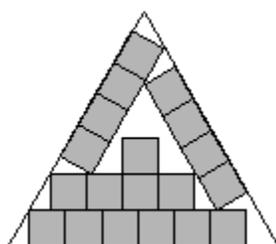
Neutral: The computer has calculated your score. You will be shown your score at the end of the third study before you leave.

### **Samples of the Test**

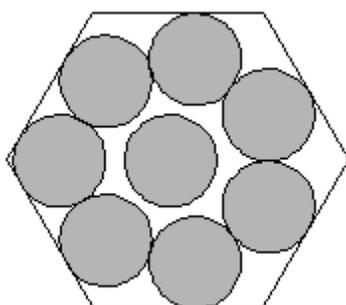
Practice round: practice set 1



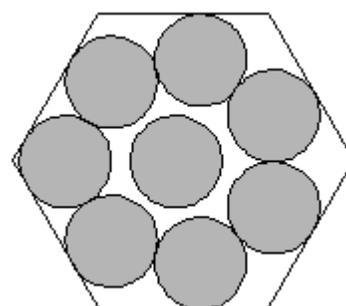
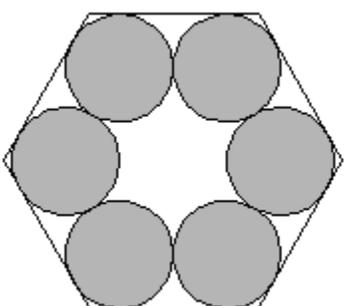
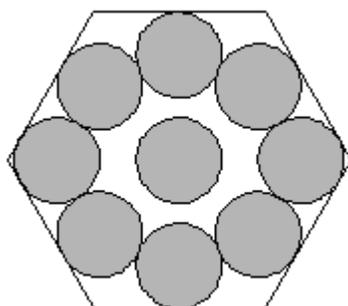
Choices:



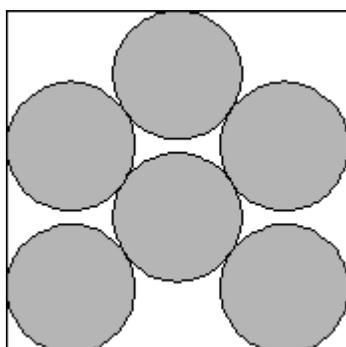
Practice round: practice set 2



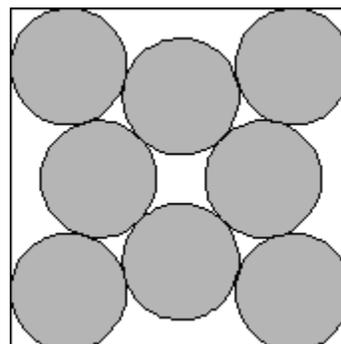
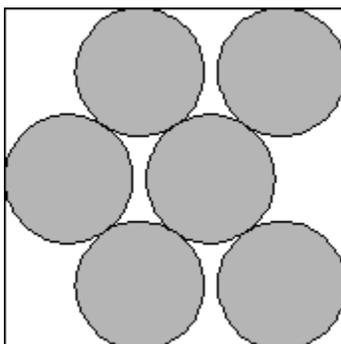
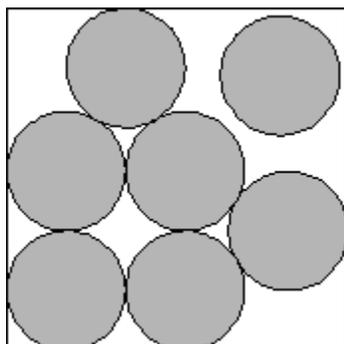
Choices:



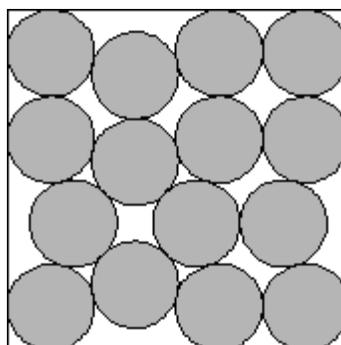
Set 1:



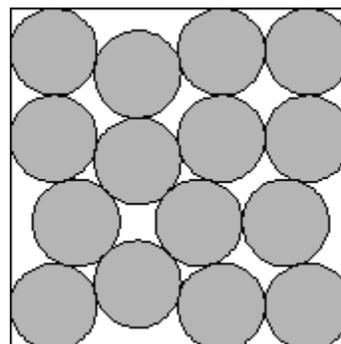
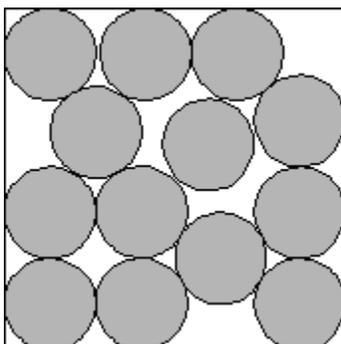
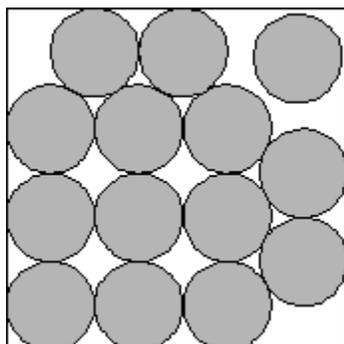
Choices:



Set 2:



Choices:





1. How much do you think it would bother the host that you did not bring a gift?

0      1      2      3      4      5      6      7      8      9      10

not at all

a great deal

2. To what extent do you think the host might form a negative impression of you based on the fact that you did not bring a gift?

0      1      2      3      4      5      6      7      8      9      10

not at all

a great deal

### **Shopping Scenario**

Imagine that you were at a local shopping mall one day, carrying two large bags of clothing. Printed on the side of the bags, in large letters, was “K-Mart.” As you were walking through the mall, you ran into a group of your classmates. They looked at your bags, nodded a quick hello to you, and continued on their way, talking amongst themselves.

1. To what extent do you think that these classmates would look down on you because you were carrying K-Mart bags of clothing?

0      1      2      3      4      5      6      7      8      9      10

not at all likely

virtually certain

2. To what extent do you think that these classmates would form an overall negative impression of you based on the fact that you were carrying K-Mart bags of clothing?

0      1      2      3      4      5      6      7      8      9      10

not at all likely

virtually certain

### **Found Item Scenario**

Imagine that you are at a campus cafeteria, ready to sit down at a table, when you notice a student ID on the floor next to your chair. You pick it up and head for the information desk to hand it in. On your way, you notice a student who looks like the person pictured on the ID you



2.How personally desirable or undesirable do you think it would be to trigger an alarm at the library?

0 1 2 3 4 5 6 7 8 9 10

completely undesirable very desirable

3.How desirable or undesirable do you think most people (not including you) would find triggering an alarm at the library?

0 1 2 3 4 5 6 7 8 9 10

completely undesirable very desirable

3.Have you ever arrived at a party without a gift? (yes or no)

4.How personally desirable or undesirable do you think it would be to arrive to a party without a gift?

0 1 2 3 4 5 6 7 8 9 10

completely undesirable very desirable

5.How desirable or undesirable do you think most people (not including you) would find arriving to a party without a gift?

0 1 2 3 4 5 6 7 8 9 10

completely undesirable very desirable

6.Have you ever found an item that belonged to someone else?(yes or no)

7.How personally desirable or undesirable do you think it would be to find a lost item and return it to its owner?

0 1 2 3 4 5 6 7 8 9 10

completely undesirable very desirable

8.How desirable or undesirable do you think most people (not including you) would find finding a lost item and returning it to its owner?

0 1 2 3 4 5 6 7 8 9 10  
completely undesirable very desirable

9.Have you ever given a well-prepared class presentation? (yes or no)

10.How personally desirable or undesirable do you think it would be to give a successful class presentation?

0 1 2 3 4 5 6 7 8 9 10  
completely undesirable very desirable

11.How desirable or undesirable do you think most people (not including you) would find giving a successful class presentation?

0 1 2 3 4 5 6 7 8 9 10  
completely undesirable very desirable

12.Have you ever shopped at K-mart or a similar discount chain? (yes or no)

13.How personally desirable or undesirable do you think it would be to shop at K-mart or a similar discount chain?

0 1 2 3 4 5 6 7 8 9 10  
completely undesirable very desirable

14.How desirable or undesirable do you think most people (not including you) would find shopping at K-mart or a similar discount chain?

0 1 2 3 4 5 6 7 8 9 10  
completely undesirable very desirable

## APPENDIX C THE SOCIAL INTELLIGENCE TEST

### **Description**

(Given verbally by the experimenter before the test)

Social intelligence is an important trait that is related to a person's ability to successfully navigate and cooperate in a variety of social situations, a person's ability to understand and empathize with other people, and is predictive of a person's success in a variety of occupations and a person's happiness in marriage, close friendships, and other social relationships.

### **Instructions**

(Given verbally by the experimenter before the test)

Now, I will give you the instructions for the social skills test. I will show you a total of 20 cards that look like this [holds up one of the laminated picture cards for participants to see]. As you can see, the card has pictures of 4 different people's faces shown on it. For each of the cards I show you, one of the people on the card is actually expressing an insincere emotion. That person was told either a very funny joke or a very sad story, and then told to express a mildly neutral facial expression. In other words, that person was asked to show a facial expression that was different from how they were actually feeling when they were photographed. The other three people shown on each card are expressing sincere emotions. In other words, they weren't told any funny joke or sad story before being photographed, and are showing a facial expression of the emotion that they were actually feeling when they were photographed.

Your task will be to correctly identify the person shown on each card who is expressing the insincere emotion. Please identify the person by pointing to their picture on the card. Some previous research suggests that people tend to be most accurate on this test when they give their first guess, and less accurate when they deliberate over the face pictures for longer amounts of time, so you should try to give your initial guess. Typically, your initial guess will come in the first 5 seconds after you see all of the faces on the card, so give that guess. Your total score on the social skills test will be the number of people out of the 20 picture cards that you correctly identify as expressing an insincere emotion. I will tell you after each of your responses whether you were correct or incorrect, and I will tell you your total score on the social skills test after you have made responses for all 20 photo cards. I cannot give you any help or instructions as you are taking the social skills test. Do you understand these instructions, and are you ready to begin the social skills test?

## APPENDIX D MOOD MANIPULATION

### **Negative Mood Condition**

In the collaboration with the researchers from the University of Florida Counseling Psychology department, we are constructing a Recent Events Inventory. In this inventory, we want to include a variety of the events that are most memorable to many people. We would like to enlist your help in constructing this inventory. To ensure that we cover a range of events, we would like you to describe an event of a particular type. Please think of a recent news event that made you feel particularly sad. Think of all the details of the event that you can recall from the media reports, and how hearing about the event made you feel. In the space below, please write as much as you can about this event. Please describe it as vividly as possible. What is it about this event that makes it particularly sad? We are especially interested in the details of the event, so please write as much as you can recall. You can write anything that is relevant to the event, and more information is best. You will have about 5 minutes to complete this description. Your help in constructing the Recent Events Inventory is much appreciated.

### **Positive Mood Condition**

In the collaboration with the researchers from the University of Florida Counseling Psychology department, we are constructing a Recent Events Inventory. In this inventory, we want to include a variety of the events that are most memorable to many people. We would like to enlist your help in constructing this inventory. To ensure that we cover a range of events, we would like you to describe an event of a particular type. Please think of a recent news event that made you feel particularly happy. Think of all the details of the event that you can recall from the media reports, and how hearing about the event made you feel. In the space below, please write as much as you can about this event. Please describe it as vividly as possible. What is it about this event that makes it particularly happy? We are especially interested in the details of the event, so please write as much as you can recall. You can write anything that is relevant to the event, and more information is best. You will have about 5 minutes to complete this description. Your help in constructing the Recent Events Inventory is much appreciated.

### **Neutral (Control) Condition**

In the collaboration with the researchers from the University of Florida Counseling Psychology department, we are constructing a Typical Objects Inventory. In this inventory, we want to include various objects that people are likely to use every day. We would like to enlist your help in constructing this inventory. Please describe a typical car. We are not interested in specifics, such as the model, the make, and year, but rather a description that includes the main features of a car. You will have about 5 minutes to complete this description. Your help in constructing the Typical Objects Inventory is much appreciated.

APPENDIX E  
QUESTIONS ABOUT THE SOCIAL INTELLIGENCE TEST

Later this semester, some of your fellow UF students will come into our laboratory and watch the videotape of you taking the *Social Intelligence Test* as a part of another study. Those students will see your entire performance on the test including your responses to each picture card. They will also be able to hear whether your response to each card was correct or not, as well as your total score on the test. To help them evaluate your performance, we will explain the nature of the test, what it measures, and why social intelligence is an important trait. We will also allow them to inspect the picture cards from the second version of the test while they observe your performance. Afterwards, we will give them a questionnaire that asks them to rate you in terms of your general social intelligence, how well they think you did on the test, and so forth. We're doing this because we're interested in the social aspects of this test and the testing situation. The questions on the following pages will ask what impression you think those students will have of you and your social intelligence. Although their impressions can be difficult to know, we would like you to guess anyway.

How good will the students watching the videotape believe your performance on the social intelligence test was?

1      2      3      4      5      6      7      8      9      10

Very bad

Very good

How impressed will those students be with your performance on the test?

1      2      3      4      5      6      7      8      9      10

Not at all

Very

How socially skilled will those students believe you are in general?

1      2      3      4      5      6      7      8      9      10

Not at all

Very

If the students who watched your performance on the test were to rank you (relative to other students) in terms of your general social intelligence, what do you suppose they might say?

Out of 100 students, they would think that \_\_\_\_\_ students are more socially intelligent than me

How personally satisfied were you with the score you received on the social intelligence test?

1    2    3    4    5    6    7    8    9    10

Not at all

Very

Compared to how you expected to perform on the test, how well did you perform?

1    2    3    4    5    6    7    8    9

Much worse

Same

Much better

How socially intelligent are you in general?

1    2    3    4    5    6    7    8    9    10

Not at all

Very

What score did you receive on the social intelligence test?

\_\_\_\_\_(out of 20 correct)

APPENDIX F  
LIKELIHOOD OF EVENTS PREDICTIONS

In addition, we are interested in your predictions about the likelihood of various events. Although you may have a limited amount of information about these events, please try to give your best estimate of how likely each event is to occur. Please answer the questions below.

How likely is it that at least one of an average student's friendships will last a lifetime?

1	2	3	4	5	6	7	8	9	10
Very unlikely									Very likely

How likely is it that you will never have a lasting romantic relationship?

1	2	3	4	5	6	7	8	9	10
Very unlikely									Very likely

How likely is the economy to suffer in the next couple of years?

1	2	3	4	5	6	7	8	9	10
Very unlikely									Very likely

How likely an average student to win a large sum of money in a lottery?

1	2	3	4	5	6	7	8	9	10
Very unlikely									Very likely

How likely is it that you will be able to find a good job upon graduating?

1	2	3	4	5	6	7	8	9	10
Very unlikely									Very likely

How likely is a major earthquake to occur in California this year?

1	2	3	4	5	6	7	8	9	10
Very unlikely									Very likely

APPENDIX G  
MOOD MEASURE

**Mood Scale**

Please describe how you feel right now, that is, at the present moment:

(1 = not at all, 2 = a little, 3 = moderately, 4 = quite a bit, 5 = extremely)

Pleasant mood adjectives: happy, pleased, content

Unpleasant mood adjectives: miserable,\* troubled,\* unhappy\*

Please indicate the extent to which the following sentences describe you:

(1 = not at all, 2 = not very well, 3 = somewhat, 4 = well, 5 = very well)

Pleasant:

My mood is positive.

Overall, I am satisfied.

Unpleasant:

My mood is not good.\*

I am feeling troubled.\*

I feel unhappy.\*

\*These items were reverse-coded

**Manipulation Check**

Were you asked to describe a news event earlier on in the study? (yes/no)

How did remembering that event make you feel?

1      2      3      4      5      6      7      8      9      10

very bad

very good

## LIST OF REFERENCES

- Bower, G. H. (1981). Mood and memory. *American Psychologist*, 36, 129-148.
- Bower, G. H. (1991). Mood congruity of social judgments. In J. P. Forgas (Ed.), *Emotion and social judgments* (pp. 31-35). Elmsford, NY: Pergamon Press.
- Chambers, J. R., Epley, N., Savitsky, K., & Windschitl, P. D. (2006). Using private pasts in public presents: The egocentric use of private information to intuit others' impressions. *Manuscript submitted for publication*.
- Epley N., Keysar, B., Van Boven, L., & Gilovich, T. (2004). Perspective taking as egocentric anchoring and adjustment. *Journal of Personality and Social Psychology*, 87, 327-339.
- Feldman Barrett, L., & Russell, J.A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology*, 74, 967-984.
- Fenigstein, A., & Abrams, D. (1993). Self-attention and the egocentric assumption of shared perspectives. *Journal of Experimental Social Psychology*, 29, 287-303.
- Forgas, J. P. (2001). The affect infusion model (AIM): An integrative theory of mood effects on cognition and judgments. In Martin L. L. & Clore, G. L. (Eds.), *Theories of mood and cognition: A user's handbook* (pp. 99-133). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Forgas, J. P. (1994). The role of emotion in social judgments: An introductory review and an affect infusion model (AIM). *European Journal of Social Psychology*, 24, 1-24.
- Forgas, J. P., & Bower, G. H. (1988). Affect in social and personal judgments. In Fiedler, K. & Forgas, J. P. (Eds.), *Affect, cognition and social behavior. New evidence and integrative attempts* (pp.183-208). Lewiston, N.Y.: C.J. Hogrefe.
- Forgas, J. P., & Moylan, S. (1988). After the movies: Transient mood and social judgments. *Personality and Social Psychology Bulletin*, 13, 467-477.
- Forgas, J. P. & Smith, C. A. (in press). Affect and emotion. In Hogg, M. A. & Cooper, J. (Eds.). *The sage handbook of social psychology* (pp. 161-189). Thousand Oaks, CA: Sage.
- Gilovich, T., Savitsky, K., & Medvec, V. H. (1998). The illusion of transparency: Biased assessments of others' ability to read one's emotional states. *Journal of Personality and Social Psychology*, 75, 332-346.

- Gilovich, T., Medvec, V. H., & Savitsky, K. (2000). The spotlight effect in social judgment: An egocentric bias in estimates of the salience of one's own actions and appearance. *Journal of Personality and Social Psychology*, 78, 211-222.
- Greenwald A. G. (1980). The totalitarian ego. Fabrication and revision of personal history. *American Psychology*, 35, 603-618.
- Kenny D. A. & DePaulo, B. M. (1993). Do people know how others view them? An empirical and theoretical account. *Psychological Bulletin*, 114, 145-161.
- Krueger, J. & Clement, R. W. (1994). The truly false consensus effect: An ineradicable and egocentric bias in social perception. *Journal of Personality and Social Psychology*, 67, 596-610.
- Layne, C. (1980). Motivational deficit in depression: People's expectations x outcomes' impacts. *Journal of Clinical Psychology*, 36, 647-652.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Ross, L., Greene, D., & House, P. (1977). The "False consensus effect": An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13, 279-301.
- Ross, M., & Sicoly, F. (1979). Egocentric biases in availability and attribution. *Journal of Personality and Social Psychology*, 37, 322-336.
- Savitsky, K., Epley, N., & Gilovich, T. (2001). Do others judge us as harshly as we think? Overestimating the impact of our failures, shortcomings, and mishaps. *Journal of Personality and Social Psychology*, 81, 44-56.
- Showers, C., & Ruben C. (1990). Distinguishing defensive pessimism from depression: Negative expectations and positive coping mechanisms. *Cognitive Therapy and Research*, 14, 385-399.
- Shrauger, J. S., & Schoeneman, T. J. (1979). Symbolic interactionist view of self-concept: Through the looking-glass darkly. *Psychological Bulletin*, 86, 549-573.
- Schwarz, N., & Clore, G. L. (1988). How do I feel about it? The informative function of affective states. In Fiedler, K. & Forgas, J. P. (Eds.), *Affect, cognition and social behavior. New evidence and integrative attempts* (pp.183-208). Lewiston, N.Y.: C.J. Hogrefe.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45, 513-523.

- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*, 1124-1130.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063-1070.
- Westermann, R., Spies, K., Stahl, G., & Hesse, F. W. (1996). Relative effectiveness and validity of mood induction procedures: a meta-analysis. *European Journal of Social Psychology*, *26*, 557-580.

## BIOGRAPHICAL SKETCH

Darya Melnyk was born on April 27, 1983, in Kiev, Ukraine. She completed most of her high school education in Ukraine and moved to Gainesville, Florida, in 1999. She graduated from Gainesville High School in 2001. Darya earned her B.S. in psychology from the University of Florida and is currently working on her PhD in social psychology at the University of Florida.