ATTITUDES AND SOCIAL COGNITION

Depression, Realism, and the Overconfidence Effect: Are the Sadder Wiser When Predicting Future Actions and Events?

David Dunning and Amber L. Story
Cornell University

Do depressed individuals make more realistic judgments than their nondepressed peers in real world settings? Depressed and nondepressed Ss in 2 studies were asked to make predictions about future actions and outcomes that might occur in their personal academic and social worlds. Both groups of Ss displayed overconfidence, that is, they overestimated the likelihood that their predictions would prove to be accurate. Of key importance, depressed Ss were less accurate in their predictions, and thus more overconfident, than their nondepressed counterparts. These differences arose because depressed Ss (a) were more likely to predict the occurrence of low base-rate events and (b) were less likely to be correct when they made optimistic predictions (i.e., stated that positive events would occur or that aversive outcomes would not). Discussion focuses on implications of these findings for the depressive realism hypothesis.

People tend to be unrealistic. They provide favorable assessments of their abilities that appear logically impossible (Alicke, 1985; Dunning, Meyerowitz, & Holzberg, 1989; Taylor & Brown, 1988). They tend to exhibit unrealistic optimism about their own ability to attain desirable future outcomes while avoiding aversive events (Weinstein, 1980). They believe that they have control over events that are produced in a transparently random manner (Langer, 1975). Compared with observers, they are more willing to take credit for their successes while laying blame for their failures on external factors (Miller & Ross, 1975).

Some researchers have asserted, however, that not all people are unrealistic. Specifically, Alloy and Abramson (1988) and others (Lewinsohn, Mischel, Chaplin, & Barton, 1980; Taylor & Brown, 1988) have proposed that depressed individuals exhibit a remarkable degree of realism in their judgments about their personal and social worlds. For example, they avoid overestimating the favorability of impressions they convey to others (Gotlib & Meltzer, 1987; Lewinsohn et al., 1980). Depressed people and those with low self-esteem fail to exhibit self-serving biases in attributions for success and failure (Campbell & Fairey, 1985; Kuiper, 1978; Sweeney, Shaeffer, & Golin, 1982). They give more appropriate weight to statistical information when making self-judgments (Alloy & Ahrens, 1987). They are more

apt to recognize when they have little or no control over the occurrence of events (Alloy & Abramson, 1979; Alloy, Abramson, & Viscusi, 1981).

In this article, we explore whether this realism, so often demonstrated and the second of the demonstration of the demonstration.

In this article, we explore whether this realism, so often demonstrated by the depressed in laboratory settings, extends to judgments in the everyday, naturally occurring world. In two studies, depressed and nondepressed college students were asked to make predictions about actions and events that could occur over the course of an academic semester (e.g., drop a class, join an intramural sports team, or be a victim of a crime). In addition to making predictions, subjects provided confidence estimates concerning the likelihood that their judgments would be correct. Students were subsequently surveyed to determine which events, indeed, had taken place. In this way, we were able to examine whether depressed individuals would display more or less realism when asked to anticipate future outcomes in naturalistic academic and social settings.

Indeed, these studies allowed us to investigate two separate measures of realism. The first was simply the rate of accuracy achieved by depressed and nondepressed participants. Would the depressed render a greater percentage of accurate predictions than their nondepressed counterparts? The second metric was "overconfidence," or the extent to which depressed and nondepressed subjects overestimated the likelihood that their predictions would prove accurate. Would the depressed be just as overconfident as their nondepressed peers, or would they provide confidence estimates that more closely matched achieved rates of accuracy?

We thank Dick Darlington, Mark Lenzenweger, Jay Russo, and Elaine Wethington for their helpful comments on previous versions of this article. Anonymous reviewers provided feedback that greatly enhanced the quality of the article. Lucy Rinehart assisted with data coding and management.

Correspondence concerning this article should be addressed to David Dunning, Department of Psychology, Uris Hall, Cornell University, Ithaca, New York 14853-7601.

¹ It should be noted that the focus of our study is on those in a depressive state as opposed to those clinically diagnosed as depressed. Thus, when we refer to "depressed individuals," we are referring to individuals often termed *mildly depressed*.

In short, this work was an extension of research examining the overconfidence effect in self- and social-prediction (Dunning, Griffin, Milojkovic, & Ross, 1990; Dunning & Ross, 1990; Vallone, Griffin, Lin, & Ross, 1990). In research on overconfidence, people are requested to make predictions about their own future behavior, or the actions of their peers, and are also asked to estimate the probability that each prediction will prove accurate. When confidence estimates are compared with achieved rates of accuracy, people in these studies are overconfident; that is, they overestimate the likelihood that their predictions will prove accurate. This tendency toward overconfidence is robust, having been revealed in domains as diverse as doctors and mental health professionals arriving at diagnoses (Lusted, 1977; Oskamp, 1962) and Central Intelligence Agency analysts predicting the outcomes of unfolding events (Cambridge & Schreckengost, 1978; see Lichtenstein, Fischhoff, & Phillips, 1982, for a review).

Overconfidence Paradigm and Depressive Realism

Given the numerous demonstrations of depressive realism, we expected that depression would act as a "boundary condition" for overconfidence in the social realm. Specifically, we expected that the depressed would be less overconfident in their predictions about future events than would the nondepressed. However, beyond exploring potential boundary conditions of overconfidence, the studies reported here also provided for an investigation that could address many criticisms leveled at work on depressive realism.

The first criticism focuses on the use, or nonuse, of independent, empirically derived criteria of accuracy or realism. Often in depressive realism research, a certain pattern of responses is assumed to be "accurate" or "unbiased" for all subjects. Judgments of depressed and nondepressed individuals are then compared with this normative pattern, with any discrepancy taken to indicate distortion. However, the use of such benchmarks as indicators of realism and bias is often problematic. As an example, consider work on self-appraisals of ability (Alloy & Ahrens, 1987; Crocker, Kayne, & Alloy, 1985; Tabachnik, Crocker, & Alloy, 1983). This work revealed that nondepressed individuals were unrealistic in their judgments of self, with a majority stating that they possessed desired characteristics to a greater degree than the "typical college student." Depressed individuals were less self-aggrandizing. Indeed, they tended to be "unbiased," stating that they possessed positive traits to the same degree as other college students.

At first blush, this pattern of responses on the part of the depressed seems realistic. There is neither a hint of self-aggrandizement nor derogation in the perception that one is as good and as bad as one's peers. However, on further reflection, the appropriateness of this conclusion becomes unclear. The depressed, in some domains, are not like their peers at all. The depressed and those with low self-esteem tend not to persist at tasks (Seligman, 1975). They tend to create social environments that are unpleasant (Coyne, 1976; Gotlib & Beatty, 1985; Strack & Coyne, 1983; Swann, Wenzlaff, Krull, & Pelham, in press). Given these findings, when the depressed state that they are just as "persistent" or as "sociable" as the typical college student, they may be just as unrealistic in these perceptions as the

nondepressed are in theirs. In short, assuming that one pattern of responses is accurate or normative for all subjects is to commit the error, as termed by Dobson and Franche (1989), of "naive realism." That is, it is to assume that all subjects, whether depressed or nondepressed, possess the same day-to-day circumstances and life history, and that any differences in judgment thus indicate cognitive illusions (or accuracy).

In the present series of studies, no one pattern of responses, applied uniformly to all subjects, was used as a criterion of realism. Instead, we assessed each individual's circumstances, whether they be favorable or unfavorable, and determined whether that individual had successfully anticipated the particular "shape" of his or her immediate destiny when queried a few months earlier. In addition, we used a less derived, and thus less problematic, criterion of realism. That is, we did not collect subjects' judgments (e.g., their attributions or their appraisals of their own abilities) and argue that one pattern was more or less biased. Instead, by ascertaining which events actually took place for each subject, we let the judgments speak to realism or illusion on their own merits; that is, we assessed whether they led to accurate predictions of objective circumstances.

The second criticism leveled against work on depressive realism focuses on ecological validity. Some have argued that the laboratory tests that subjects confront in these studies are ambiguous and unfamiliar (Coyne & Gotlib, 1983; Dobson & Franche, 1989). For example, in some demonstrations of depressive realism, the central task facing subjects is to estimate the extent to which they control the flashing of a green light. According to the critics, these tasks are ones for which subjects have little experience or expertise, a setting that is ripe for unrealistic appraisals of ability.

In contrast, in the studies to be reported here, subjects completed prediction tasks involving domains in which they had experience and expertise. For example, they predicted their future academic success, the extracurricular activities they would pursue, and the events that would befall them in their social lives. These studies thus provided subjects with the best chance possible at rendering realistic appraisals of their abilities and characteristics. These studies, in addition, provided subjects with an advantage often missing in the laboratory setting: They were able to work actively to ensure the accuracy of their predictions because of the flexibility of their environments. They were able to do so by applying more effort or by modifying the environment to make a predicted outcome more likely. In the laboratory, such efforts at self-fulfilling prophecies are often limited. For example, in the classic studies by Alloy and Abramson (1979), in which subjects attempted to control the flashing of a light, no amount of effort could raise the contingency between the subjects' actions and the onset of the light.

Finally, examining the realism of predictions made by respondents in their own "settings" allowed us to investigate the mechanisms and conditions associated with greater or lesser depressive realism. To date, laboratory studies have demonstrated that the depressed at times do render more realistic judgments, but more work is needed to specify the circumstances under which this tendency is enhanced or attenuated (for some work on limiting conditions, see Benassi & Mahler, 1985; Dykman, Abramson, Alloy, & Hartlage, 1989; Vasquez, 1987). Are the depressed more accurate than the nondepressed

when the outcome in question is desirable? Do the depressed more correctly perceive when events are out of their control?

The investigations to be reported here, by examining judgments for a wide variety of outcomes, allowed us to explore conditions that lead to greater or lesser realism among the depressed. Some of the events for which subjects made predictions were desirable (e.g., getting an A in a course), and some were not (e.g., becoming sick and missing classes). Some events were perceived as controllable (e.g., participating in intramural sports), and some as less so (e.g., being a victim of a crime). Some events were common (e.g., going home for Thanksgiving); others were rare (e.g., losing 10 lb.). By examining these various events, we could pinpoint the conditions under which the two groups would diverge in the realism of their predictions, and thus we could also speak to the possible mechanisms prompting such divergences.

Indeed, by investigating these various outcomes, the present studies examined two specific mechanisms that might prompt differences in realism between the depressed and nondepressed. The first mechanism involved neglecting the population base rates of outcomes to be predicted. The second mechanism centered on misplaced optimism in one's ability to bring about desirable events and avoid aversive ones.

Base-Rate Neglect

The first mechanism involves the extent to which depressed and nondepressed individuals take into account the base rates of the events that they are predicting. Work on social prediction and overconfidence suggests that people give insufficient weight to the population base rates of relevant actions and events when making predictions and providing confidence estimates (Dunning et al., 1990; Vallone et al., 1990). A series of studies by Osberg and Shrauger (1986) demonstrates this fact explicitly. When subjects were asked for the reasoning behind predictions of their own future behavior, they tended to cite their own behavior, personal circumstances, and dispositions 99% of the time. Only 1% of the reasons given focused on population base rates.

The impact of this base-rate neglect on predictive error and overconfidence is dramatic, because the base rate of an event is a prime determinant of accuracy. When subjects predict that the target (either the self or another individual) will select a response commonly chosen by other individuals in the relevant population (i.e., their prediction "goes with" the base rate), they tend to be accurate and negligibly overconfident. However, when predicting that the target will select a behavioral response chosen by only a minority of his or her peers ("goes against" the base rate), subjects tend to achieve dramatically lower accuracy rates and exhibit a large degree of overconfidence (Dunning et al., 1990; Vallone et al., 1990).

It should be noted that the issue is not whether subjects do or do not know the relevant population base rates. In studies in which subjects are explicitly requested to estimate the general prevalence of behavioral responses among their peers, they tend to be accurate (Nisbett & Kunda, 1985). The problem for social prediction is that people fail to give adequate, if any, weight to this information. This was directly documented by Dunning et al. (1990) in a study where subjects were given ex-

plicit base-rate information before they were asked to provide their predictions. Express knowledge of base-rate information had no effect on subjects' predictions. Subjects given base-rate information were just as likely to state that the target would experience rare outcomes, did so with the same level of confidence, and achieved the same lowered rate of accuracy as subjects left uninformed.

If ignoring the relevant population base rates and predicting the occurrence of rare events are sources of error, then it is likely that the depressed will be more prone to mistakes in self-prediction. Several studies have shown that the depressed view themselves and their circumstances as more dissimilar from their peers than do the nondepressed (Crocker et al., 1985; Pietromonaco & Markus, 1985; Swallow & Kuiper, 1987; Tabachnik et al., 1983). For example, Tabachnik et al. (1983) asked depressed and nondepressed college students to rate themselves along a number of personal characteristics. They were also asked to rate the typical student along the same dimensions. The self-ratings of depressed subjects were more discrepant from their ratings of the typical student (though neither in a positive nor negative direction) than were those of nondepressed respondents.

In short, given previous work on depressive judgment, we can anticipate that depressed subjects will be more likely to go against the relevant base rate and state that they will experience rare events or respond to events in a way rarely chosen. Given previous work on overconfidence, we can anticipate that these predictions be less accurate and expressed with a greater degree of overconfidence.

Unwarranted Optimism

In contrast, the second mechanism that might prompt error and overconfidence, unwarranted optimism, suggests that the depressed will be more realistic in self-prediction. Nondepressed people possess unrealistically positive perceptions of their skills (Alicke, 1985; Dunning et al., 1989) and their ability to bring about positive outcomes while avoiding undesirable ones (Sherman, 1980; Weinstein, 1980; see Taylor & Brown, 1988, for a review). For example, Weinstein asked college students to predict whether they were more or less likely than their peers to experience positive outcomes (e.g., have a happy marriage) and negative events (e.g., contract lung cancer). A vast majority of subjects said they were more likely than their peers to experience the good in life and avoid the bad, a result that is logically impossible. It is easy to see how this tendency can lead to predictive error and overconfidence: People will overpredict the occurrence of positive events and underpredict the occurrence of aversive ones.

The depressed, however, may be more likely to avoid this tendency toward undue optimism. Several researchers have shown that the predictions of the depressed are more pessimistic than those of their nondepressed peers (Alloy & Ahrens, 1987; Andersen, 1990; Pietromonaco & Rook, 1987; Pyszczynski, Holt, & Greenberg, 1987; Riskin, Rholes, Brannon, & Burdick, 1987). For example, Pyzczynski et al. presented depressed and nondepressed subjects with events taken from the Weinstein (1980) study. They discovered that depressed individuals, relative to nondepressed participants, rated positive events

as less likely to happen to them and negative events as more likely.

By examining the accuracy of predictions concerning desirable versus undesirable events, we were able to assess whether this difference in pessimism leads to differential accuracy. However, we made no firm prediction about the influence of optimism on accuracy, because the relative pessimism exhibited by the depressed may not translate into greater realism. Depression may not only influence expectancies of the future, but also the actual future outcomes that people attain. Depression carries emotional, motivational, and social deficits that can interrupt supportive social environments and successful academic ones (Coyne, 1976; Coyne & Gotlib, 1983; Seligman, 1975; Strack & Coyne, 1983; Swann et al., in press), making the achievement of positive outcomes and the avoidance of negative ones more difficult. Thus, although the depressed may be more pessimistic relative to the nondepressed, their predictions, paradoxically, may still be too optimistic if they fail to anticipate the degree to which their lives may be disrupted by their current depressive state.

Also relevant is the potential influence of outcome controllability. People tend to become unrealistic to the extent that the event is perceived to be controllable (Alicke, 1985; Weinstein, 1980). The depressed, however, tend not to fall prey to these "illusions of control" (Alloy & Abramson, 1979; Alloy et al., 1981). Given these findings, we expected any errors of unrealistic optimism to be exacerbated when the event was perceived as controllable, and so we compared the realism displayed by depressed and nondepressed subjects when dealing with controllable versus less controllable events.

Overview

Two separate studies were conducted. In the first, 164 college students were asked to predict whether 37 different events or outcomes would occur over the course of a semester. For each prediction made, subjects also estimated the likelihood that the judgment would prove accurate. Because the results of the first study were unexpected, we replicated the research in a study consisting of predictions made by 259 students concerning 36 different events. In both studies, we investigated the roles played by base-rate neglect and unwarranted optimism in determining judgmental accuracy and overconfidence for the two groups of interest: depressed and nondepressed individuals.

Method

Subjects and Recruitment

In Study 1, 221 Cornell University undergraduates enrolled in psychology or human development courses volunteered at the beginning of their spring semesters to render predictions. They responded to initial surveys, as well as Beck Depression Inventories (BDI; Beck, 1967, 1976), during course lectures. During the last week of courses, these students were approached in class lectures again and asked to complete a second survey that inquired about the events that they had actually experienced. Of the original set of 221 subjects, 176 (80%) completed this second survey during class lectures. Twelve students were omitted because they provided incomplete data, leaving a final sample of 164 students.

In Study 2, 346 Cornell University undergraduates enrolled in psychology or human development courses rendered predictions at the beginning of their fall semesters. These subjects were approached during class lectures and filled out prediction surveys and BDIs either in class or at home. During the last week of classes, these subjects were approached again in course lecture sessions and asked to fill out a second survey inquiring about the actual outcomes that they had experienced. Of the original set of respondents, 291 (84%) completed the second survey either in class or at home. Of these, 12 failed to provide either predictions or confidence estimates and were thus omitted. We eliminated 20 additional subjects because they indicated that they had participated in Study 1. The final sample investigated in Study 2, therefore, consisted of 259 individuals. Subjects in Study 2 received extra credit toward their course grades for participation.

Procedure and Materials

In both studies, the initial survey asked subjects to predict whether or not they would experience 37 (Study 1) or 36 (Study 2) separate events during the course of the semester. The individual items used in the studies, mostly taken from Vallone et al. (1990), are presented in Table 1. They were selected because they were relevant to undergraduate life and varied as much as possible along the dimensions of desirability, controllability, and population base rate.

Subjects made a prediction, "yes" or "no," regarding whether they would perform the action or experience the event in question. After making their predictions for each item, subjects were asked to report the level of confidence they held for that judgment. Specifically, subjects were asked to estimate the probability that each prediction would prove accurate, using a scale that ranged from 50% to 100%. Subjects were informed that confidence estimates lower than 50% were inappropriate, because if they felt less than 50% certain that an event would (or would not) happen, they should be making the opposite prediction. The instructions regarding confidence estimates were extensive. Subjects were told to endorse 100% confidence only when they were absolutely sure that their predictions would be correct, to endorse 50% confidence when they harbored no belief that their predictions would be more accurate than the alternative, and to endorse 75% certainty when they felt the odds were 3 to 1 that the prediction would be accurate.

After completing the prediction survey, subjects responded to the BDI. Following procedures that are traditional in work on depressive realism, we termed any subject scoring a 9 or above as depressed (though, again, the reader is reminded that these individuals should be thought of as suffering from subclinical "mild depression"). In Study 1, 31 subjects were classified as depressed (M BDI score = 14.8, SD = 6.1) and 133 as nondepressed (M = 3.8, SD = 2.4). In Study 2, 60 subjects were classified as depressed (M BDI score = 13.0, SD = 4.3) and 199 as nondepressed (M = 3.4, SD = 2.4).

During the last week of the semester, subjects were given a second survey asking them to indicate, with a yes or no response, whether the events listed in the prediction survey had actually occurred to them.²

² It should be noted that three of the items used in both studies (obtain an A in your favorite course, make the dean's list, and obtain an A in the class you are sitting in now) did not involve retrospective reports of preceding events but projections of what would happen in the near future given the events of the semester. We were forced to look at projections on these items because we were not able to obtain students' academic records. We repeated all analyses reported in this article after omitting these items. Because these supplemental analyses only negligibly differed from the full analyses, those full analyses are reported. All data regarding subjects' performances (accuracy, confidence, and overconfidence) for each item are available from the authors upon request.

Table 1
Desirability and Controllability Ratings Given to
Prediction Events Used in Studies 1 and 2

	Measure	
Outcome	Desirability	Controllability
High desirability/high controllability		
Obtain an A in your favorite course	8.6	7.2
Make the dean's list this semester	8.5	6.8
Throw a party for more than 20		
people	6.6	7.2
Write best friend more than once a	6.3	77
month Exercise at least twice a week	6.2 6.0	7.7 7.3
Declare or change your major	5.8	7.5 7.6
Participate in intramural sports	5.7	7.9
Take part in an organized protest	5.6	8.0
Participate in a psychology		
experiment (besides this one)	5.2	7.7
Change a class to pass/fail grade	5.2	7.2
Spend Thanksgiving at home	7.4	7.2
High desirability/low controllability		
Receive an A in the class you are	0.2	
sitting in now	8.3	6.2
Have an out-of-town friend visit you	8.0	5.2
Meet a person who becomes a good friend	7.6	4.6
Begin a major relationship	6.7	4.7
Lose more than 10 pounds	6.6	6.0
Visit a friend more than 100 miles	0.0	0.0
away	6.5	6.4
Visit New York City twice or more		
this semester	6.0	6.4
Have a summer job lined up by end		
of semester ^b	7.7	6.4
Remain in Ithaca this summer ^b	5.2	6.7
Low desirability/high controllability	<i>5</i> 1	7.2
Change roommates See a counselor because of academic	5.1	7.3
or social problems	4.0	7.1
Skip your most important class more	4.0	7.1
than three times	3.1	7.6
Study later than 4 a.m. on at least		
one occasion	3.0	7.2
Be seriously ill one day because of		
overdrinking	3.0	7.5
Bounce a check	2.4	7.3
Get a parking or speeding ticket	1.9	6.8
Spend spring break at home ^b	4.4	6.8
Low desirability/low controllability		
Argue with one of your professors or TAs over a grade	4.5	6.6
Question your decision to attend	7.5	0.0
Cornell	3.6	4.9
Drop a course after the fifth week	3.3	6.1
Miss more than 2 days of classes		
because of sickness	2.8	3.2
Have a serious disagreement with a		
good friend	2.4	4.9
End a major relationship	2.4	5.8
Have an academic "slump" for more	2.	, ~
than 2 weeks	2.1	4.7
Gain more than 10 pounds	2.1	6.1
Feel seriously homesick Be the victim of a crime	1.9 1.2	3.8 2.4
Experience a significant attack of	1,4	4.7
insomnia ^a	2.2	2.5

Note. Ratings for both desirability and controllability were made on Likert scales. For desirability, subjects (n = 25) rated each outcome from 1 (not at all desirable) to 9 (extremely desirable). For controllability, subjects rated each outcome from 1 (not at all controllable) to 9 (extremely controllable).

^a Included in Study 2 only. ^b Included in Study 1 only.

Subjects' predictions were considered accurate when those predictions matched the responses provided on this second questionnaire.

It should be noted that for both surveys, subjects were instructed that we were not interested in their personal identities. Indeed, subjects listed only their student numbers on the forms to allow us to link the initial and the second surveys. In Study 2, where subjects received extra credit for their participation, subjects handed in separate slips of paper containing their names to establish the fact that they had participated.

Assessment of Event Desirability, Controllability, and Base Rate

Separate samples of Cornell University undergraduates rated the events along desirability and controllability dimensions. In all, 25 students (14 nondepressed and 11 depressed, as indicated by a BDI score lesser or greater than 9) were given a list of all 39 events used in the two studies. They were asked to rate each outcome on its desirability using a scale ranging from 1 (highly undesirable event) to 9 (highly desirable event). They also rated whether the event was controllable on a scale ranging from 1 (highly uncontrollable) to 9 (highly controllable). It should be noted that subjects rated how desirable or controllable the events were for students in general, and not for themselves personally. Depressed and nondepressed subjects did not differ significantly in their ratings of event desirability and controllability.

From these ratings, four separate groups of outcomes were formed. Specifically, individual events were split along the median according to their ratings on the desirability measure. They were also split along the median with reference to their controllability ratings. This produced groupings of high desirable/high controllable outcomes, high desirable/low controllable outcomes, low desirable/high controllable outcomes, and low desirable/low controllable outcomes. These groupings, as well as desirability and controllability ratings for individual outcomes, are displayed in Table 1.

Base rates for each outcome were determined by examining rates at which subjects responded yes or no on the follow-up survey concerning actual outcomes. The response selected by a majority of subjects was termed the *base-rate response*, and predicting it was considered going with the base rate. Prediction of the response chosen by a minority was considered going against the base rate.

Results

Data from the two studies were analyzed to address three issues in turn. The first issue concerned which group, the depressed or nondepressed, would be more realistic in their predictions, as indicated by measures of accuracy and overconfidence. The second question involved the role of base-rate neglect for any divergences we found. The final issue centered on unwarranted optimism, and thus the role of event desirability and controllability.

Gender, class rank, and age did not influence the results to be reported and thus receive no further mention. It should be noted that all means reported represent weighted averages across the two studies. Statistical analyses reported in the text are Stouffer's Zs (see Stouffer, 1949; see also Cooper, 1979), derived by combining results across the two studies.³

³ Stouffer's Zs were calculated by the following general method, as proposed by Cooper (1979). The relevant statistical analyses were run separately for each study, and the significance level or p value for each individual trend (e.g., depressed predicted a greater number of negative events) was assessed. Z scores corresponding to these significance lev-

Who Is More Realistic? Confidence, Accuracy, and Overconfidence

When we examined confidence estimates, we found that the lower rates of accuracy among the depressed were unanticipated. That is, across the two studies, the depressed were just as confident in their predictions as the nondepressed (Ms = 83.0% and 83.5% for depressed and nondepressed subjects, respectively, Z = -.77). As a consequence, the depressed were more overconfident in their predictions, as measured by the discrepancy between confidence and accuracy rates, than the nondepressed (Ms = 9.7 and 6.2 for depressed and nondepressed subjects, respectively, Z = 2.86, p < .005). Although significant across the two studies, the difference in overconfidence achieved statistical significance only in Study 1, t(162) = 2.95, p < .005. In Study 2, this tendency only approached significance, t(258) = 1.55, p < .15.

Although there were differences between the groups in the realism of their predictions, it is worth mentioning that both depressed and nondepressed subjects exhibited robust tendencies toward overconfidence. When we compared subjects' confidence levels with their achieved accuracy, we found that both depressed and nondepressed overestimated the likelihood that their predictions would prove to be correct. For example, across both studies, depressed subjects tended to provide confidence estimates (M = 83.0%) that were significantly higher than achieved accuracy (M = 73.3%), Z = 11.40, p < .0001. The same was observed for nondepressed subjects ($M_{\text{confidence}} = 83.5\%$ vs. $M_{\text{accuracy}} = 76.9\%$; Z = 13.61, p < .0001). This result is completely consistent with past work on the overconfidence effect.

Role of Base-Rate Neglect

We suggested earlier that the depressed may exhibit less accuracy because they would be more guilty of base-rate neglect, more often predicting the occurrence of unusual events or dis-

els in each individual study were determined and then aggregated (giving weight to the number of subjects participating in each study), producing the overall Zs reported in the text. Thus, each Stouffer's Z indicates the probability that the overall trend across the two studies would be observed, given the null hypothesis. Both studies individually produced main effects and interactions similar to the overall effects discussed in the text. At times, these main effects and interactions are not statistically significant within an individual study but are significant when data are aggregated across the two studies.

Table 2
Confidence, Accuracy, and Overconfidence of
Depressed and Nondepressed Subjects

Measure/study	Subject type		
	Depressed (%)	Nondepressed (%)	t ^a
Confidence			
Study 1	83.8	83.5	0.23
Study 2	82.7	83.5	-1.08
Overall	83.0	83.5	-0.77
Accuracy			
Study 1	72.4	77.5	-3.07**
Study 2	73.9	76.7	-2.45*
Overall	73.3	76.9	-3.66**
Overconfidence			
Study 1	11.4	6.1	2.95**
Study 2	8.8	6.3	1.55
Overall	9.7	6.2	2.86**

Note. For depressed subjects, ns = 31 and 60 for Studies 1 and 2, respectively. For nondepressed subjects, ns = 133 and 199 for Studies 1 and 2, respectively. Overall means represent averages weighted by the number of subjects in each group within each study.

tinctive actions. We further proposed that these predictions of rare outcomes would prove to be less accurate.

Depressed subjects did make more predictions of rare outcomes. As can be seen in Table 3, depressed subjects made a greater number of predictions of minority events (M = 36.8%) than did nondepressed participants (Ms = 31.7%; Z = 4.55, p < .0001). Further analyses, as expected, revealed that these predictions of rare outcomes were less accurate (see Table 3). In both studies, accuracy rates achieved when subjects stated that they would act "distinctively" were lower (Ms = 55.2% and 52.7% for Studies 1 and 2, respectively) than when subjects made "with base-rate" predictions (Ms = 85.9% and 87.9% in both studies, respectively).

In sum, depressed subjects predicted low base-rate occurrences, a tendency that led them to be less accurate than their nondepressed peers. But what caused them to go against the base rate? Were they, for example, reacting to the desirability or controllability of the event? Analyses suggested that the tendency of the depressed to go against the base rate was prompted by their greater willingness to predict that undesirable events would occur. Except for one item in Study 1 ("changing roommates"), all of the undesirable outcomes in the two studies had base rates of less than 50%. Thus, to predict that they would occur was to go against the base rate. When we examined these items, we found that the depressed were more willing to predict

^a Test statistics reported for overall data are Stouffer's Zs.

^{*} p < .05. ** p < .005.

⁴ Base rates for each item were calculated by examining the simple majority of responses across all subjects. We also calculated these overall base rates by taking, for each item, the unweighted average of base rates exhibited by depressed and nondepressed subjects. The results obtained using these "alternative" base rates were virtually identical to those reported in the text.

Table 3
Prevalence and Accuracy of Predictions Made by
Depressed and Nondepressed Subjects
Going With Versus Against Base Rates

	Subject type		
Measure	Depressed ^a (%)	Nondepressed* (%)	Stouffer's $Z^{\mathfrak{b}}$
Percentage of predictions going against base rates Accuracy of predictions	36.8	31.7	4.55**
going against base rates Accuracy of predictions	53.1	53.8	-0.28
going with base rates	84.7	87.8	-3.62*

Weighted average by the number of subjects in each group within each study.

that they would take place (M=38.2%) than were the nondepressed (M=28.5%; Z=5.45, p<.0001). This tendency also interacted with event controllability (Z=2.67, p<.02). When considering highly controllable events, the depressed were reliably more likely to predict the occurrence of negative events (Ms=33.8% and 28.3% for depressed and nondepressed subjects, respectively, Z=3.13, p<.001). When we examined less controllable outcomes, we found that this tendency was even more pronounced (Ms=40.3% for depressed subjects vs. 28.6% for nondepressed respondents, Z=4.81, p<.0001). Examination of subjects' responses to desirable outcomes revealed that depressed and nondepressed subjects did not differ in their tendencies to go with versus against the relevant population base rates, Zs<1.5.5

It should be noted, however, that base-rate neglect failed to provide a complete account of the disparity in accuracy between depressed and nondepressed participants. If it were a full explanation, then we should have observed no differences in accuracy between depressed and nondepressed subjects when we looked at only predictions that went with the base rate or only at predictions that went against it. As can be seen in Table 3, some differences did emerge between the two groups when these predictions were considered. Specifically, when we examined only those predictions going with the base rate, we still found that the depressed achieved lower rates of accuracy (M = 84.7%) than the nondepressed (M = 87.8%; Z = -3.62, p < .0001). In short, some other mechanism must have been operating to promote less accuracy and realism among the depressed.

Role of Unwarranted Optimism

That other mechanism, surprisingly, was undue optimism. At first blush, unrealistic optimism would not seem to be a good candidate to explain the differences in accuracy and overconfidence we found. However, an inspection of our data suggested that a portion of the difference between depressed and nondepressed subjects was, indeed, due to this mechanism. Put simply, and paradoxically, depressed subjects exhibited more unre-

alistic optimism than nondepressed respondents. To be sure (and consistent with past studies), the depressed were more pessimistic in their predictions than their nondepressed counterparts, stating that undesirable events were more likely to occur to them. However, when we examined the events that actually took place, we found that depressed subjects encountered fewer positive and more aversive outcomes than even they had anticipated. Thus, depressed subjects were less accurate than their nondepressed peers when they made *optimistic* predictions, that is, when they stated a favorable event would occur to them or that an unfavorable event would not.

The differing predictions and outcomes associated with depressed and nondepressed subjects gave rise to several complicated statistical interactions in a comprehensive data analysis. This became evident when we conducted 2 (subjects' level of depression) \times 2 (outcome desirability) \times 2 (outcome controllability) analyses of variance (ANOVAs) for, first, subjects' predictions, and, second, the outcomes they experienced. Concerning the predictions that subjects made, we observed a Depression X Outcome Desirability interaction across the two studies (Z =3.81, p < .0005) that was prompted by the fact that the depressed were less optimistic than their nondepressed peers in their predictions. Concerning the outcomes that the two groups actually experienced, several effects arose. First, we observed another Depression \times Outcome Desirability interaction (Z = 5.82, p < .0001). In addition, we observed a Depression \times Outcome Controllability interaction (Z = 2.12, p < .05) and a threeway interaction involving depression, outcome desirability, and outcome controllability (Z = 2.99, p < .01). These interactions, taken as a whole, suggested that the actual outcomes befalling the depressed were more averse than those experienced by the nondepressed, especially when examining less controllable out-

Omnibus ANOVAs centering on accuracy and overconfidence revealed similar complex interactions. Specifically, we submitted subjects' accuracy and overconfidence scores to 2 (depression level) \times 2 (outcome desirability) \times 2 (outcome controllability) \times 2 (subject's prediction: whether event would or would not occur) ANOVAs. Concerning accuracy, two effects of interest were observed. First, we discovered a three-way interaction across the two studies involving depression, outcome

b Weighted by number of subjects in each study.

^{*} p < .01. ** p < .005.

⁵ These results leave open an alternative account of the lesser accuracy of depressed subjects. It may be that depressed subjects not only view themselves negatively, but also view people in general as more likely to experience undesirable events. Additional data, collected in Study 2, allowed us to test this possibility. Specifically, subjects were asked to estimate the percentage of Cornell students who would experience each outcome presented in the study. Depressed and nondepressed participants did not differ in their predictions for Cornell students in general. Concerning positive outcomes, depressed subjects estimated that 44.8% of students would experience them over the course of the semester, whereas nondepressed participants estimated the base rates to be roughly 43.4%, t(257) = 1.02, ns. For negative outcomes, depressed subjects estimated that they would occur 51.9% of the time, whereas nondepressed individuals estimated their occurrence at 49.3%, t(257) = 1.62, ns. It should be noted that both groups overestimated the actual base rate of occurrence for events in general.

desirability, and the specific prediction that the subject made (Z = 4.70, p < .0005) driven by the fact that the depressed were less accurate than nondepressed respondents when they made optimistic predictions. This three-way interaction, however, was complicated by a four-way interaction, involving outcome controllability (Z = 2.73, p < .05) that revealed that the differences between depressed and nondepressed participants were most apparent when they made predictions about less controllable events. Differences in overconfidence followed the same pattern as the accuracy data. A three-way interaction among depression, event desirability, and specific prediction was observed (Z = 3.67, p < .01), as well as a four-way interaction that also involved event controllability (Z = 2.76, p < .05).

These interactions are complex. They are explicable, however, when examining desirable and undesirable events separately. Doing so more clearly reveals how the depressed, even though they were more pessimistic in their predictions than their nondepressed peers, were more unrealistically optimistic about the events that would befall them in their futures, prompting straightforward differences in accuracy and overconfidence.

Positive events. Several analyses revealed that depressed subjects, relative to their nondepressed peers, overestimated the occurrence of favorable outcomes. As can be seen in Table 4, depressed subjects were more likely to predict the occurrence of positive outcomes (M=53.4%) than were nondepressed subjects (M=50.6%), although this tendency failed to reach statistical significance (Z=1.55, ns). However, when we examined the outcomes that subjects experienced (again, see Table 4), we found that depressed subjects were less likely to experience posi-

Table 4
Predicted and Actual Outcomes of Depressed and
Nondepressed Subjects as a Function of Event
Desirability and Controllability

Measure/event category	Subject type		
	Depressed a (%)	Nondepressed* (%)	Stouffer's Z^{b}
% predicted outcome			
would occur			
High desirability			
High controllability	53.7	49.7	1.79*
Low controllability	53.0	51.5	0.67
Low desirability			
High controllability	43.1	36.1	2.76**
Low controllability	37.9	26.1	5.06***
% outcome actually did			5.00
occur			
High desirability			
High controllability	36.4	36.7	-0.37
Low controllability	31.0	33.6	-1.09
Low desirability	31.0	33.0	1.09
	26.2	22.1	1.00*
High controllability	36.2	32.1	1.89*
Low controllability	32.1	18.8	6.61***

Weighted average by the number of subjects in each group within each study.

Table 5
Accuracy of Depressed and Nondepressed Subjects as a Function of Event Desirability, Controllability, and Whether Outcome Was Predicted to Occur

Event desirability/ event controllability/ prediction of out- come occurrence	Subject type		
	Depressed a (%)	Nondepressed (%)	Stouffer's
High desirability			
High controllability			
Yes	59.9	64.5	-1.67*
No	90.4	91.6	-0.69
Low controllability			
Yes	50.4	58.2	-1.96**
No	91.2	90.3	0.47
Low desirability			
High controllability			
Yes	64.4	62.8	0.71
No	82.4	84.5	-0.97
Low controllability			
Yes	58.2	44.2	2.71**
No	82.6	90.7	-4.21***

^a Weighted average by the number of subjects in each group within each study

tive events (M = 33.7%) than were nondepressed peers (M = 35.2%), although again this tendency was nonsignificant (Z = -1.19).

These tendencies had a direct impact on accuracy and overconfidence. As can be seen in Table 5, depressed subjects were less accurate than were nondepressed respondents when they were "optimistic"; that is, when they stated that positive outcomes would occur ($M_{\text{accuracy}} = 55.2\%$ and 61.9% for depressed and nondepressed subjects, respectively, Z = -2.85, p < .01). Depressed subjects were also more overconfident in this circumstance ($M_{\text{overconfidence}} = 25.3\%$ and 19.7% for depressed and nondepressed participants, respectively, Z = 2.55, p < .05). When making pessimistic predictions (i.e., asserting that positive outcomes would not occur), depressed subjects were just as accurate and overconfident as their nondepressed counterparts (Zs < 1).

Negative events. Similar patterns of prediction, outcome, accuracy, and overconfidence were observed when subjects dealt with negative events. To be sure, when considering negative outcomes, the depressed were much more pessimistic overall than their nondepressed peers. They were more likely to predict the occurrence of these averse events (M = 40.5%) than were nondepressed participants (M = 31.1%, Z = 5.50, p <.0001; see Table 4). This pessimism was well-placed, because depressed subjects were also much more likely to experience these negative outcomes (M = 34.5%) than were nondepressed respondents (M = 25.5%, Z = 5.73, p < .0001). As is evident in Table 4, this disparity in outcomes was especially pronounced for less controllable events (Ms = 31.1% and 18.8% for depressed and nondepressed respondents, respectively, Z = 6.61, p <.0001). When those aversive events were highly controllable, the differences in outcomes between depressed and nondepressed

b Weighted by number of subjects in each study.

^{*} p < .10. ** p < .05. *** p < .005.

study.

b Weighted by number of subjects in each study.

^{*} p < .10. ** p < .05. *** p < .005.

subjects achieved only marginal significance (Ms = 36.2% and 32.1% for depressed and nondepressed subjects, respectively, Z = 1.89, p < .10). It should be noted that this last disparity between high and less controllable events prompted the two-way Depression × Controllability interaction and the three-way interaction among depression, controllability, and desirability noted earlier in omnibus analyses of subjects' outcomes.

Similar to the pattern found with positive outcomes, depressed subjects tended to attain lower accuracy, and to exhibit greater overconfidence, when they were "optimistic"—in this case, that meant when they asserted that aversive events would not occur. When making such predictions, the depressed achieved accuracy rates of only 82.5%, compared with the rate of 87.6% attained by nondepressed participants (Z = -3.45, p <.0005; see Table 5). Depressed subjects were also more overconfident when they predicted the absence of negative outcomes $(M_{\text{overconfidence}} = 2.7\% \text{ and } -1.9\% \text{ for depressed and nonde-}$ pressed subjects, respectively, Z = 2.57, p < .05). In contrast, when the depressed were pessimistic and predicted that negative events would take place, they actually achieved higher accuracy rates than the nondepressed ($M_{\text{accuracy}} = 61.3\%$ and 53.5% for depressed and nondepressed subjects, respectively, Z = 2.92, p < .01). They were also less overconfident than their nondepressed peers when making pessimistic predictions, albeit to only a marginal degree ($M_{\text{overconfidence}} = 20.2\%$ and 22.7% for depressed and nondepressed subjects, respectively, Z = -1.66, p < .10).

It should be noted, however, that the divergent pattern of performances by depressed and nondepressed subjects was primarily found in the low controllable group of aversive events (thus producing the overall four-way interactions for accuracy and overconfidence noted earlier). This is not surprising, because it is these specific events that depressed subjects were more likely to experience than their nondepressed peers. Specifically, when we considered only low controllable, aversive outcomes, we found that the depressed were less accurate than their nondepressed counterparts when they optimistically stated that these outcomes would not occur (Ms = 82.6% and 90.7% for depressed and nondepressed groups, respectively, Z =-4.21, p < .0001). When depressed subjects pessimistically asserted that these events would take place, they were significantly more accurate (Ms = 58.2% and 44.2% for depressed and nondepressed respondents, respectively, Z = 2.71, p < .05). Patterns in overconfidence followed the same general pattern for aversive, less controllable events. When we examined high controllable events, we found the same pattern of performance (depressed subjects were less accurate and more overconfident when optimistic, and the reverse when they were pessimistic), but the pattern did not attain statistical significance across the two studies.

In sum, the depressed were more pessimistic than their nondepressed peers in their predictions of the events that they would experience. However, a close examination of the outcomes that depressed and nondepressed subjects actually experienced reveals that the depressed were not "pessimistic enough," leading to lower rates of accuracy. Relative to their nondepressed peers, they overestimated the occurrence of positive outcomes, and thus were less accurate exactly when they predicted that those desirable outcomes would occur. Similarly, the depressed were less accurate than the nondepressed when they asserted that negative events would fail to occur. In short, the depressed were correct in anticipating that their futures would be less desirable than those of their nondepressed peers. However, they failed to anticipate the degree to which those personal destinies would be aversive. For the depressed, the net effect of this failure was lowered accuracy on the one hand and heightened overconfidence on the other.

General Discussion

Two studies examined whether individuals in a depressed state are more realistic, relative to nondepressed individuals, concerning the events and outcomes that they might encounter in their day-to-day academic and social worlds. The results of both studies converged to a single and surprising answer: Depressed individuals were less realistic about their futures. In both studies, the level of accuracy they achieved was lower than that attained by their nondepressed counterparts. In addition, across the two studies, they proved to be more overconfident in the predictions they rendered. In sum, in our mildly depressed student sample, we did not find any evidence of the realism observed in past social psychological work. If anything, we found the exact opposite.

We should note, however, that although nondepressed subjects made more realistic judgments than depressed participants, this is not to say that the nondepressed were realistic and the depressed were not. Both groups displayed unrealistic confidence in the likelihood that their predictions would prove accurate. That is, the confidence estimates that depressed and nondepressed participants provided for their predictions were rarely justified by their attained rates of accuracy. Indeed, across the two studies, nearly 75% of subjects' predictions were made with 75% confidence or higher. These high confidence estimates precluded underconfidence and made overconfidence an inevitability.

Mechanisms

In addition to finding less realism on the part of depressed respondents, this research also explored two mechanisms potentially responsible for the disparate performances attained by depressed and nondepressed individuals. Our data suggested that the lowered accuracy achieved by the depressed was prompted by a paradox of tendencies. On the one hand, the depressed attained less accuracy because of a pessimistic tendency to predict the occurrence of undesirable events. However, on the other hand, it was exactly when the depressed were "optimistic" that they achieved lower rates of accuracy than the nondepressed.

The first side of the paradox concerns the predictions that depressed respondents were willing to make. In short, the depressed were more pessimistic about their prospects (thus replicating Alloy & Ahrens, 1987; Andersen, 1990; Pietromonaco & Rook, 1987; Pyszczynski et al., 1987; Riskin et al., 1987). Although they did not differ from their nondepressed peers concerning whether they expected desired outcomes to occur, we found that depressed participants were more likely to predict the occurrence of aversive outcomes. These events, however,

turned out to be rare. Thus, predicting their occurrence involved going against the base rate, a tendency that past research has found to lower the overall accuracy of one's predictions (cf. Dunning et al., 1990; Vallone et al., 1990). To be sure, the depressed were more accurate than nondepressed individuals when they stated that these rare, aversive events would take place, but both subject groups were more accurate overall when they went with the base rate, that is, when they optimistically asserted that such negative events would not take place.

The second side of the paradox, though, is that depressed individuals were not adequately pessimistic in their predictions. When they said they would attain desirable outcomes or would be able to avoid aversive ones, depressed individuals were less likely, relative to their nondepressed counterparts, to be accurate. To a nonsignificant degree, they were less likely than nondepressed individuals to bring about desired outcomes. To a robust degree, they were less able to avoid the appearance of negative events. Thus, when making predictions of an optimistic nature, the depressed were being less realistic.

In sum, although the depressed were less pessimistic in a domain in which most, if not all, of our subjects were being overly optimistic, this is not to say that they were being more realistic, as is often assumed by researchers in this area. Their idiosyncratic futures were different from most of their peers'. Those futures included fewer pleasant outcomes and contained many more noxious events than these individuals had anticipated.

Implications for the Depressive Realism Hypothesis

Taken together, these findings have clear relevance for the depressive realism hypothesis. Our data did not support this hypothesis and must serve to call this view into question. Buttressing this call for reconsideration is the fact that other recent studies have also found that depressive realism is not a uniform phenomenon, but rather a tendency that occurs only under some circumstances (Benassi & Mahler, 1985; Dykman et al., 1989) or only when using certain standards of comparison (Campbell & Fehr, 1990).

Indeed, the two studies presented here are problematic for the depressive realism hypothesis in that they assessed depressive realism within an ecologically valid setting. We invited subjects to make predictions about the day-to-day events that could befall them within their "work" and "home" settings. They were able to draw on extensive experience and expertise in making their predictions. In contrast, most explorations of depressive realism occur in laboratory settings, involving contrived tasks that are unfamiliar to subjects.

But why would nondepressed subjects exhibit greater realism in our studies and less realism in the laboratory? What is different between the two settings that would prompt these contradictory results? There are many candidates for factors to consider. One possibility is that the environment that subjects faced in these studies was more "flexible." Subjects had more opportunities to fulfill the "prophecies" they had provided. For example, when stating that they would "exercise twice a week," subjects could take steps that would make that outcome an inevitability. They could commit themselves monetarily by joining a gym or socially by signing up for a dorm basketball team. Such maneu-

vers are often precluded in laboratory studies on depressive realism.

This analysis may explain why the depressed displayed the most unrealistic optimism, relative to their nondepressed counterparts, when they considered less controllable outcomes, especially when those outcomes were negative. It is clear that less controllable events (e.g., being a victim of a crime or becoming sick and missing class for 2 days) were in some way controllable, but that such control required effort. For example, though there are many factors beyond one's control, it is possible to lower the probability that one will be a victim of a crime. One can make sure to lock the doors, lock the car, and avoid walking alone at night. One can avoid missing class because of sickness by wearing weather-appropriate clothing, sleeping well, obtaining proper medication when necessary, or simply ignoring the sickness and going to class. The depressed may have been less realistic when considering these events because they had lost the ability to "control" them. They had lost the emotional, motivational, and social resources necessary to apply effort toward the outcomes they desired or to fulfill the prophecies they enunciated. With this analysis in mind, it would be interesting to return to the laboratory and "manipulate" subjects' ability to alter or transform the environment surrounding them. Perhaps this is the mechanism by which people ensure the accuracy of their predictions and expectations, or the key factor that differentiates circumstances under which the depressed show more or less realism than their nondepressed counterparts.

This study raises another issue concerning laboratory studies designed to assess realism on the part of depressed and nondepressed subjects. Often, such studies focus on attributional or judgmental measures. For example, researchers may investigate what attributions depressed and nondepressed individuals make about successes and failures (e.g., Kuiper, 1978; Sweeney et al., 1982), or they might study how subjects assess their own abilities against those of their peers (e.g., Tabachnik et al., 1983). Often, attributional and judgmental differences are found, with the depressed being less self-aggrandizing, and much is made concerning which group is more realistic or evenhanded in its responses.

The research reported here suggests that comparing the judgments of depressed and nondepressed subjects in this way. and then making conclusions about realism, may be problematic. In our studies, depressed and nondepressed subjects experienced many different outcomes, with the depressed being more likely than nondepressed participants to experience aversive events. If brought into the laboratory, given a task to complete, and asked to make judgments about their performance, it would seem reasonable that the depressed would render different attributions or judgments than the nondepressed. The evidence from their personal histories that they bring to the laboratory is less favorable, and thus it is only natural to be less self-aggrandizing. Without knowing this day-to-day evidence that individuals bring with them, and that they bring to bear on the judgments they are requested to make, it is difficult to discern who is being realistic in the lab.

Thus, although this research does not derogate the importance of laboratory work in attempts to understand social judgment and depressive cognition, it highlights the importance of pursuing work that includes real-world, idiographic measures

of accuracy. Such indicators would take into account the differential experiences that individuals garner in their everyday pursuits and that influence their interpretations of the events that befall them.

References

- Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology*, 49, 1621-1630.
- Alloy, L. B., & Abramson, L. Y. (1979). Judgment of contingency in depressed and nondepressed students: Sadder but wiser? *Journal of Experimental Psychology: General*, 108, 441-485.
- Alloy, L. B., & Abramson, L. Y. (1988). Depressive realism: Four theoretical perspectives. In L. B. Alloy (Ed.), Cognitive processes in depression (pp. 223-265). New York: Guilford Press.
- Alloy, L. B., Abramson, L. Y., & Viscusi, D. (1981). Induced mood and the illusion of control. *Journal of Personality and Social Psychology*, 41, 1129–1140.
- Alloy, L. B., & Ahrens, A. H. (1987). Depression and pessimism for the future: Biased use of statistically relevant information in predictions for self and others. *Journal of Personality and Social Psychology*, 52, 366-378.
- Andersen, S. M. (1990). The inevitability of future suffering: The role of depressive predictive certainty in depression. Social Cognition, 8, 203–228.
- Beck, A. T. (1967). Depression: Clinical, experimental, and theoretical aspects. New York: Harper & Row.
- Beck, A. T. (1976). Cognitive therapy and emotional disorders. New York: International Universities Press.
- Benassi, V. A., & Mahler, H. I. M. (1985). Contingency judgments by depressed college students: Sadder but not always wiser. *Journal of Personality and Social Psychology*, 49, 1323-1329.
- Cambridge, R. M., & Schreckengost, R. C. (1978). Are you sure? The subjective probability assessment test. Unpublished manuscript, Office of Training, Central Intelligence Agency, Langley, VA.
- Campbell, J. D., & Fairey, P. J. (1985). Effects of self-esteem, hypothetical explanations, and verbalization of expectancies on future performance. *Journal of Personality and Social Psychology*, 48, 1097-1111.
- Campbell, J. D., & Fehr, B. (1990). Self-esteem and perceptions of conveyed impressions: Is negative affectivity associated with greater realism? *Journal of Personality and Social Psychology*, 58, 122-133.
- Cooper, H. M. (1979). Statistically combining independent studies: A meta-analysis of sex differences in conformity research. *Journal of Personality and Social Psychology*, 37, 131-146.
- Coyne, J. C. (1976). Depression and the response of others. *Journal of Abnormal Psychology*, 2, 186–193.
- Coyne, J. C., & Gotlib, I. H. (1983). The role of cognition in depression: A critical appraisal. *Psychological Bulletin*, 94, 472-505.
- Crocker, J., Kayne, N. T., & Alloy, L. B. (1985). Comparing the self with others in depressed and nondepressed college students: Reply to McCauley. *Journal of Personality and Social Psychology*, 48, 1579– 1583.
- Dobson, K., & Franche, R. L. (1989). A conceptual and empirical review of the depressive realism hypothesis. Canadian Journal of Behavioral Science, 21, 419-433.
- Dunning, D., Griffin, D. W., Milojkovic, J., & Ross, L. (1990). The overconfidence effect in social prediction. *Journal of Personality and Social Psychology*, 58, 568-581.
- Dunning, D., Meyerowitz, J. A., & Holzberg, A. (1989). Ambiguity and

- self-evaluation: The role of idiosyncratic trait definitions in self-serving assessments of ability. *Journal of Personality and Social Psychology*, 57, 1082–1090.
- Dunning, D., & Ross, L. (1990). Overconfidence in individual and group prediction: Is the collective any wiser? Unpublished manuscript, Cornell University.
- Dykman, B. M., Abramson, L. Y., Alloy, L. B., & Hartlage, S. (1989).
 Processing of ambiguous and unambiguous feedback by depressed and nondepressed college students: Schematic biases and their implications for depressive realism. *Journal of Personality and Social Psychology*, 56, 431-445.
- Gotlib, I. H., & Beatty, M. E. (1985). Negative responses to depression: The role of attributional style. *Cognitive Therapy and Research*, 9, 91–103.
- Gotlib, I. H., & Meltzer, S. J. (1987). Depression and the perception of social skill in dyadic interaction. Cognitive Therapy and Research, 11, 41-54.
- Kuiper, N. A. (1978). Depression and causal attributions for success and failure. *Journal of Personality and Social Psychology*, 36, 236– 246.
- Langer, E. J. (1975). The illusion of control. Journal of Personality and Social Psychology, 32, 311–328.
- Lewinsohn, P. M., Mischel, W., Chaplin, W., & Barton, R. (1980). Social competence and depression: The role of illusory self-perception. *Journal of Abnormal Psychology*, 89, 203-212.
- Lichtenstein, S., Fischhoff, B., & Phillips, L. D. (1982). Calibration of probabilities: The state of the art to 1980. In D. Kahneman, P. Slovic, & A. Tversky (Eds.), Judgment under uncertainty: Heuristics and biases (pp. 306-334). New York: Cambridge University Press.
- Lusted, L. B. (1977). A study of the efficacy of diagnostic radiologic procedures: Final report on diagnostic efficacy. Chicago: Efficacy Study Committee of the American College of Radiology.
- Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin*, 82, 213-225.
- Nisbett, R. E., & Kunda, Z. (1985). Perceptions of social distributions. Journal of Personality and Social Psychology, 48, 297-311.
- Osberg, T. M., & Shrauger, J. S. (1986). Self prediction: Exploring the parameters of accuracy. *Journal of Personality and Social Psychology*, 51, 1044–1057.
- Oskamp, S. (1962). The relationship of clinical experience and training methods to several criteria of clinical prediction. *Psychological Monographs*, 76(28, Whole No. 547).
- Pietromonaco, P. R., & Markus, H. (1985). The nature of negative thoughts in depression. *Journal of Personality and Social Psychology*, 48, 499-507.
- Pietromonaco, P. R., & Rook, K. S. (1987). Decision style in depression: The contribution of perceived risks versus benefits. *Journal of Personality and Social Psychology*, 52, 399-408.
- Pyszczynski, T., Holt, K., & Greenberg, J. (1987). Depression, self-focused attention, and expectancies for positive and negative future life events for self and others. *Journal of Personality and Social Psychology*, 52, 994-1001.
- Riskin, J. H., Rholes, W. S., Brannon, A. M., & Burdick, C. A. (1987). Attributions and expectations: A confluence of vulnerabilities in mild depression in a college student population. *Journal of Personal*ity and Social Psychology, 53, 349-354.
- Seligman, M. E. P. (1975). Helplessness: On depression, development, and death. San Francisco: Freeman.
- Sherman, S. J. (1980). The self-erasing nature of errors of prediction. Journal of Personality and Social Psychology, 39, 211–221.
- Stouffer, S. A. (1949). The American soldier: Vol. 1. Adjustment during army life. Princeton, NJ: Princeton University Press.
- Strack, S., & Coyne, N. C. (1983). Social confirmation of dysphoria:

- Shared and private reactions to depression. Journal of Personality and Social Psychology, 44, 798-805.
- Swallow, S. R., & Kuiper, N. A. (1987). The effects of depression and cognitive vulnerability to depression on judgments of similarity between self and other. *Motivation and Emotion*, 11, 157-167.
- Swann, W. B., Jr., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (in press). Seeking truth, reaping despair: Depression, self-verification and selection of relationship partners. *Journal of Abnormal Psychology*
- Sweeney, P. D., Shaeffer, D., & Golin, S. (1982). Attributions about self and others in depression. *Personality and Social Psychology Bulletin*, 8, 37–42.
- Tabachnik, N., Crocker, J., & Alloy, L. B. (1983). Depression, social comparison, and the false-consensus effect. *Journal of Personality* and Social Psychology, 45, 688-699.

- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- Vallone, R. P., Griffin, D. W., Lin, S., & Ross, L. (1990). The overconfident prediction of future actions and outcomes by self and others. Journal of Personality and Social Psychology, 58, 582-592.
- Vasquez, C. (1987). Judgment of contingency: Cognitive biases in depressed and nondepressed subjects. *Journal of Personality and Social Psychology*, 52, 419-431.
- Weinstein, N. D. (1980). Unrealistic optimism about future life events. Journal of Personality and Social Psychology, 39, 806-820.

Received July 9, 1990
Revision received March 1, 1991
Accepted April 27, 1991

Call for Nominations for Psychology, Public Policy, and Law

The Publications and Communications (P&C) Board has opened nominations for the editorship of *Psychology, Public Policy, and Law,* a new journal in development by APA. The journal will include articles that integrate and critically evaluate existing areas of research and original large-scale empirical research with significant public policy and legal implications.

Candidates must be members of APA and should be available to start receiving manuscripts in the late spring of 1992. Please note that the P&C Board encourages more participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. To nominate candidates, prepare a statement of one page or less in support of each candidate. Submit nominations to:

Howard E. Egeth Department of Psychology Johns Hopkins University Charles & 34th Streets Baltimore, Maryland 21218

Other members of the search committee are Shari S. Diamond, J. Thomas Grisso, and Felice J. Levine. First review of nominations will begin December 15, 1991.