Conceptions of Ability, Achievement Goals, and Individual Differences in Self-Handicapping Behavior: On the Application of Implicit Theories

Frederick Rhodewalt
University of Utah

ABSTRACT This study tested the hypothesis that individual differences in the tendency to engage in self-handicapping were related to beliefs about the mutability of ability attributes and the pursuit of different achievement goals. Correlational data indicated that high self-handicappers as defined by the Self-Handicapping Scale (Jones & Rhodewalt, 1982) believed that ability traits were more innately determined. They were more likely to endorse performance goals (demonstration of ability) than were low self-handicappers. Low self-handicappers, in contrast, held a more incremental view of ability traits and pursued learning goals (increasing competence). Results are discussed in terms of the cognitive underpinnings of self-protective behavior.

People often do seemingly peculiar things when their self-images are on the line. Consider, for example, the champion boxer who arrives to defend his title poorly conditioned and considerably overweight. His poor conditioning would undoubtedly ensure defeat, an outcome the champion would most certainly be motivated to avoid. Jones and Berglas (1978) have coined the term *self-handicapping* to refer to the strategic creation of obstacles to successful performance. Although

I wish to thank Lisa Jones and DeAnn Tilton for their valuable assistance with research material preparation, data collection, and data analysis. I am also grateful to Carol Sansone and Carolyn Morf for their comments on an earlier draft of this article. Correspondence concerning this article should be sent to Frederick Rhodewalt, Department of Psychology, University of Utah, Salt Lake City, UT 84112.

Journal of Personality 62:1, March 1994. CCC 0022-3506/94/$1.50

self-handicapping increases the likelihood of failure, it permits the self-handicapper to externalize poor performance and protect self-esteem.

Over a decade of research has named a host of behaviors as potential self-handicaps, including drug and alcohol consumption (Berglas & Jones, 1978; Higgins & Harris, 1988; Tucker, Vuchinich, & Sobel, 1981), lack of practice (Rhodewalt, Saltzman, & Wittmer, 1984), reduced effort (Pyszczynski & Greenberg, 1983; Rhodewalt & Fairfield, 1991), unfavorable performance settings (Rhodewalt & Davison, 1986; Shepperd & Arkin, 1989), test anxiety (Smith, Snyder, & Handelsman, 1982), traumatic life events (DeGree & Snyder, 1985), and symptom reports (Mayerson & Rhodewalt, 1988; Smith, Snyder, & Perkins, 1983).

Other research has informed us about the conditions that precipitate self-handicapping behavior. Self-presentational concerns (Kolditz & Arkin, 1982) and anticipated threats to self-esteem (C. R. Snyder & Smith, 1982), particularly uncertainty about one's ability (Berglas & Jones, 1978), trigger the enactment of self-handicapping.

There are also individual differences in the tendency to employ self-handicaps. For example, research with the Self-Handicapping Scale (Jones & Rhodewalt, 1982) indicates that individuals who score high on this scale appear to possess a proclivity to use excuses and handicaps in the service of self-esteem protection (see Rhodewalt, 1990, for review). For example, it has been found that high self-handicappers will forego practice or withdraw effort when uncertain about their ability to perform successfully (Rhodewalt & Fairfield, 1991; Rhodewalt et al., 1984).

Being called upon to provide evidence of an ability about which one is uncertain appears to be a proximal cause of self-handicapping (Berglas & Jones, 1978). However, not everyone responds to such threats with self-protective acts. The goal in the present article is to understand why some people who are worried about their ability to demonstrate some desired trait turn to self-handicapping while others in the same dilemma do not resort to such tactics. The present analysis approaches this question by drawing upon Dweck and Leggett's (1988) recently developed social-cognitive model of personality and motivation (see also Elliot & Dweck, 1988).

Goals and Implicit Theories

The Dweck and Leggett (1988) model is based upon earlier observations of children's "mastery-oriented" or "helpless" reactions to challenge

(Diener & Dweck, 1978, 1980; Dweck, 1975; Dweck & Reppucci, 1973). People who display the helpless pattern attempt to avoid challenge and give up in the face of failure. In contrast, mastery-oriented people seek challenge and persist or increase effort in response to failure.

A paradoxical element of this research is that individuals displaying the different patterns do not differ in ability. Dweck and Leggett (1988) propose that rather than being ability-related, the two response patterns are associated with different achievement goals which in turn are related to different implicit theories about the nature of ability (see Nicholls, 1984, for a similar discussion). Specifically, the helpless pattern is thought to be related to the pursuit of *performance goals* in achievement situations. That is, helpless individuals are concerned with demonstrating ability and obtaining positive feedback that affirms the desired attributes. The mastery-oriented pattern is associated with the pursuit of *learning goals*. Mastery-oriented people are interested in increasing their competence.

Dweck and Leggett (1988) further propose that different implicit theories about the nature of intelligence underlie an orientation toward either performance or learning goals. According to their formulation, helpless people focus on performance goals because they view intelligence as a *fixed entity*. They believe that their intellectual abilities are immutable and therefore can only be demonstrated but not improved. Thus, their concern about performance, avoidance of challenging but risky situations, and withdrawal of effort are motivated by their belief that failure indicates an unalterable inadequacy on their part. Mastery-oriented individuals entertain the theory that intelligence is *incremental*. For these individuals intelligence is a competence that can be cultivated and improved.

Another way of illustrating the Dweck and Leggett model is to say that beliefs about the mutability or immutability of attributes give rise to different objectives in challenging achievement contexts which, in turn, motivate different coping strategies in response to failure. The preferred strategies appear to be increased (mastery-oriented) or decreased (helpless) effort. It should be noted that according to Dweck and Leggett, the display of a mastery-oriented or helpless reaction is a function of goal and confidence in ability. When confidence is high, both performance and learning goals will produce mastery-oriented behavior (high effort) but when confidence is low, those with performance goals will respond with helplessness.

Goals, Implicit Theories, and Self-Handicapping

Although decrements in effort often indicate helplessness or giving up in the face of challenge, reduced effort can also be a strategy for the protection of self-esteem (Frankel & Snyder, 1978; M. L. Snyder, Smoller, Strenta, & Frankel, 1981). Studies have shown that individuals will sometimes withdraw effort in anticipation of poor performance on an important or ability-relevant task (Pyszczynski & Greenberg, 1983; Rhodewalt & Fairfield, 1991). In fact, effort withdrawal can be considered one example of self-handicapping behavior (Jones & Berglas, 1978). In self-protective terms, the withdrawal of effort permits the discounting of attributions for poor performance to lack of ability.

Thus, one line of research suggests that effort withdrawal is linked to implicit theories of the self and outcome goals, while a second line of research indicates that it is a strategy employed by individuals, particularly self-handicappers, as a response to an anticipated threat to the self.

The present study attempted to link these two areas of research by exploring the hypothesis that individual differences in self-handicapping are associated with different implicit theories about the mutability of attributes and abilities. In turn, these differences in implicit theories lead high and low self-handicappers to pursue different goals in achievement settings. Specifically, it was predicted that high self-handicappers would be more likely to express the view that traits are fixed entities, while low self-handicappers would be more likely to endorse an incremental view of traits. It was also predicted that high self-handicappers would be most interested in performance goals and low self-handicappers would be most interested in learning goals.

A questionnaire study was conducted to test these hypotheses. Participants, who had previously completed the Self-Handicapping Scale, responded to a set of questions that probed their beliefs about the degree to which various attributes were fixed versus malleable. They then completed a measure of goals in achievement settings.

Self-esteem was included as a second individual difference for two purposes. First, self-esteem is inversely correlated with level of self-handicapping. Previous research indicates that the Self-Handicapping Scale predicts self-handicapping behavior when self-esteem is controlled, while self-esteem does not predict self-handicapping behavior independent of the Self-Handicapping Scale (Rhodewalt & Fairfield,

1991; Strube, 1986). Accordingly, self-esteem was included in the present study to show that specific implicit theories and performance goals were related to the tendency to self-handicap rather than a function of self-esteem.

The second reason for including self-esteem is that differences in self-esteem might be directly related to implicit theories and goals. Baumeister, Tice, and Hutton (1989) have proposed that self-esteem as measured by conventional self-esteem scales is an index of self-presentational motive. According to them, high self-esteem reflects an orientation to self-aggrandize. High self-esteem individuals will take risks in order to claim desirable traits. In contrast, low self-esteem (actually moderate self-esteem in their view) is characterized as a cautious, self-protective style of self-presentation. Low self-esteem individuals like to maintain a positive self-view but are eager to avoid humiliation or embarrassment. The underlying interpersonal motives to self-aggrandize versus self-protect might be related to implicit theories and performance goals. It is likely that low self-esteem individuals believe that traits are fixed entities and thus engage in self-protective behavior more often than do high self-esteem people.

METHOD

Subjects

Eighty subjects (44 males and 36 females) recruited from undergraduate introductory psychology courses participated in the study. Recruitment was limited to individuals who had participated in a mass testing session conducted at the beginning of the term. Subjects received partial course credit for their participation.

Assessment of Self-Handicapping and Self-Esteem

The Self-Handicapping Scale is a 25-item questionnaire that probes people's tendencies to use self-handicapping behaviors, such as lack of effort ("I would do a lot better if I tried harder"), illness ("I suppose I feel 'under the weather' more often than most"), and procrastination ("I tend to put things off to the last moment"), in conjunction with evaluative performances. The items also tap concerns about achievement. Rhodewalt et al. (1984) report that the scale is internally consistent (coefficient alpha, $r = .78$) and temporally stable (test-retest at 1 month, $r = .74$). In addition, the scale has shown good predictive

validity (Hirt, Deppe, & Gordon, 1991; Rhodewalt, 1990; Rhodewalt et al., 1984; Strube, 1986; Strube & Roemmele, 1985). The median score of 72 on the Self-Handicapping Scale in the present population is quite similar to that observed in past research (Rhodewalt et al., 1984).

Self-esteem was assessed by the 20-item Revised Janis-Field Feelings of Inadequacy Scale (Eagly, 1969, cited in Robinson & Shaver, 1973). Robinson and Shaver (1973) report that the Revised Janis-Field Scale has been used extensively in past research and correlates highly with other measures of self-esteem (e.g., the California Personality Inventory's Esteem Scale, $r = .67$; self-ratings of esteem, $r = .60$). Split-half reliabilities for the scale have ranged from .72 to .88 (Robinson & Shaver, 1973); the scale has also demonstrated adequate convergent and discriminant validity (Hamilton, 1971). Again, the median score of 73 on this measure was similar to that reported in past research (Baumeister et al., 1989).

Assessment of Implicit Theories

A questionnaire was designed to probe individuals' implicit theories about traits as incremental or fixed entities. An attempt was made to collect convergent evidence by measuring implicit theories using three types of questions across three domains of attributes: athletic ability, intelligence, and social skills. First, for each attribute subjects were asked to respond to five open-ended questions: (*a*) "What does it mean to be athletic (smart, socially skilled)?", (*b*) "What does it mean to be unathletic (unintelligent, socially unskilled)?", (*c*) "Why are some people athletic (smart, socially skilled)?", (*d*) "Why are some people unathletic (not smart, socially unskilled)?", and (*e*) "What, if anything, could someone do to become more athletic (smarter, more socially skilled)?"

Next, subjects read brief paragraphs that described a person who was athletic, intelligent, or socially skilled. For example, subjects read, "Mary has just graduated from college with a 3.69 GPA. She was assistant editor of the school newspaper. She received a scholarship to medical school and she will begin her studies in the fall." Subjects were asked to rate the hypothetical person's intelligence, athletic ability, or social skill on a 7-point scale bounded by the endpoints "extremely below average" and "extremely above average." Subjects were then presented with a list of factors that could contribute to the hypothetical person's good performance and asked to distribute 100 points among the factors in proportion to the degree to which the subject felt the factor was the likely cause of the performance. The factors were chosen to include innate ability (e.g., innate intelligence), effort (e.g., amount of effort put into schoolwork), task difficulty (e.g., difficulty of major), and situational factors (e.g., quality of the schools and college attended).

Finally, for each general attribute subjects were presented with a list of

seven more specific attributes and asked to indicate how much each feature could be improved by the person's effort (1 = not at all; 5 = a great deal). For example, the general category of intelligence included the components verbal, reading, and math ability, abstract and spatial reasoning, general knowledge, and creativity.[1]

Assessment of Goals

Goals were measured with the Personal Goals in School Scale (Nicholls, Patashnick, & Nolen, 1985). Subjects indicated the extent to which they agreed (1 = not at all; 5 = very much) with 21 statements each beginning with the stem, "I feel most successful if . . . ." The scale contains three subscales measuring learning goals (eight items), performance goals (five items), and the goal of work avoidance (eight items). Examples of learning goals (labeled task orientation by Nicholls et al., 1985) include "I learned something interesting," "What I learned really makes sense," "A lesson makes me think about things," and "I solve a problem by working hard." Examples of performance goals (labeled ego and social orientation by Nicholls et al., 1985) are "I am the only one who can answer a question," "I do the work better than other students," and "I get higher test scores than my friends." The work avoidance subscale included the items "I didn't have to work hard," "I didn't have any tough tests," and "I do almost no work and get away with it." Coefficient alphas in the present study were $r = .82$ for learning goals, $r = .71$ for performance goals, and $r = .87$ for work avoidance. Performance and learning goals were negatively related, $r(80) = -.22$, $p < .05$, performance goals and work avoidance were positively related, $r = .48$, $p < .001$, and learning goals and work avoidance were unrelated, $r = -.13$, *ns*.

Procedure

The Self-Handicapping Scale and the Janis-Field Self-Esteem Scale were included in a mass testing administered at the beginning of the term. Subjects who had completed the mass testing were recruited by telephone to participate in a study concerning people's beliefs about personality. They were run in groups of 3 to 10 people. After all subjects in a group completed the questionnaire packet, they were debriefed and given credit.

1. The components of athletic ability were coordination, flexibility, strength, endurance, speed, and physique. The components of social skill were friendliness, sense of humor, confidence, warmth, communication ability, ability to form close relationships, and outgoing.

RESULTS

Overview

The results are presented in three sections, as follows. Reported first are the relations between implicit theories and achievement goals. Next, the relations among self-handicapping, self-esteem, and implicit theories are described. Finally, the associations among self-handicapping, self-esteem, and goals are reported.

Implicit Theories, Ability Domains, and Achievement Goals

Implicit theories. With respect to implicit theories, three kinds of questions were designed in order to provide convergent evidence of subjects' underlying views about the relative contributions of nature versus nurture to personality attibutes. Responses to the open-ended questions "Why are some people smart or not smart (athletic or unathletic, more or less socially skilled)?" and "What, if anything, could someone do to become smarter (more athletic, more socially skilled)?" were scored by two independent raters on the dimensions of the extent to which the responses cited innate qualities, motivation and effort, or situational factors. The raters made their evaluations on 7-point scales bounded by the endpoints "not at all" and "very much." Interrater reliabilities across the nine ratings ranged from .65 to .95, with an average reliability of .87. Average ratings were used in the analyses.

Subjects were also presented with vignettes depicting an athletic, intelligent, or socially skilled target person and asked to evaluate the causes of the target person's precosity. A question following each vignette served as a manipulation check. Subjects were asked to indicate how smart, athletic, or socially skilled the target was compared to other people. A 2 × 2 × 2 × 3 (High vs. Low Self-Handicapper × High vs. Low Self-Esteem × Male vs. Female × Athletic, Intelligent, Social Skill Target Person) repeated measures analysis of variance (ANOVA) on these ratings revealed an effect only for the target person, $F(2, 143) = 7.99, p < .001$.[2] The athletic target person was rated more

2. For the purpose of analyses across domains of ability, subjects were categorized as high or low self-handicappers and high or low self-esteem on the bases of median splits on the respective scales. The median of 72 on the Self-Handicapping Scale resulted in 39 low self-handicappers and 41 high self-handicappers. Likewise the median of 73 on

athletic compared to others ($m = 6.2$), the intelligent target was rated more intelligent compared to others ($m = 5.7$), and the socially skilled target was rated more socially skilled compared to others ($m = 5.7$). More important and as intended, all target individuals were viewed as above average on the target attribute (the midpoint of the 7-point scale, 4, was labeled "average compared to others").

The third source of data bearing on implicit theories was subjects' ratings of the extent to which the target persons' effort could improve their athleticism, intelligence, and social skill. For each domain subjects rated seven related attributes for how much each could be improved by the person's effort. Coefficient alphas were computed for the seven attributes within each domain and indicated modest to acceptable levels of internal consistency (athletic ability, $r = .55$; intellectual ability, $r = .77$; and social skills, $r = .82$). Accordingly, the ratings within each domain were averaged to produce malleability indices.

Ability domain. Although not the central concern of the investigation, the data across domains of ability permit the assessment of the generalizability of people's fixed-entity versus incremental views of ability. For each measure of implicit theory, 2 × 2 × 2 × 3 (High vs. Low Self-Handicapping × High vs. Low Self-Esteem × Male vs. Female × Athletic Ability, Intelligence, Social Skill) multivariate analyses of variance (MANOVAs) were conducted in order to determine if people's theories differed as a function of ability domain. Although there were significant differences among domains across all measures, suggesting domain-theory specificity, the patterns of means were not consistent across the different assessments of implicit theories. In response to the open-ended questions, subjects indicated that social skills were more innately determined ($m = 4.6$) than athletic ability ($m = 4.1$) or intelligence ($m = 3.9$), $F(2, 143) = 7.36$, $p < .001$, and that effort played the greatest role in athletic ability ($m = 4.5$), followed by intelligence ($m = 3.7$) and then social skill ($m = 2.2$), $F(2, 143) = 55.00$, $p < .001$. They also indicated that situational factors had a greater influence on social skills ($m = 3.3$) than on intellectual ability ($m = 3.0$) and athletic ability ($m = 2.0$), $F(2, 143) = 16.02$, $p < .001$. Responses to the vignettes revealed that subjects believed that innate factors made the greatest contribution to athletic ability ($m = 24.4$), followed by social

---

the Self-Esteem Scale resulted in 37 subjects being classified as low self-esteem and 43 being classified as high self-esteem.

Table 1
Correlations among Individual Differences in Self-Handicapping and Self-Esteem, Implicit Theories of Ability, and Achievement Goals

	Individual differences		Open-ended responses			Vignette responses			Malleability	Goals		
	SH	SE	In	Ef	Sit	In	Ef	Sit	Mal	Ln	Pf	AW
Individual differences												
Self-handicapping (SH)		−.37*	.28*	.05	−.05	.29*	−.20	.02	−.07	−.24*	.42*	.22*
Self-esteem (SE)			−.05	.02	.03	−.13	.20	.04	.47*	.24*	−.03	.12
Implicit theories												
Open-ended responses												
Innate (In)				−.36*	−.22*	.38*	−.18	−.04	−.10	−.30*	.23*	.21*
Effort (Ef)					−.21	.06	.24*	−.27*	.23*	.19	−.04	−.09
Situation (Sit)						−.05	−.27*	.10	−.03	.01	−.04	−.14
Vignette responses												
Innate (In)							−.28*	−.23*	−.12	−.04	.29*	.07
Effort (Ef)								−.51*	.22*	.07	−.14	.04
Situation (Sit)									−.11	.09	−.26*	.01
Malleability												
Effort improves ability (Mal)										.33*	−.27*	.09
Goals												
Learning (Ln)											−.19	−.05
Performance (Pf)												.45*
Avoid work (AW)												

*$p < .05$.

skills (m = 22.7) and then intelligence (m = 19.0), $F(2, 143) = 10.31$, $p < .001$. Unlike their responses to the open-ended questions, subjects believed that in the vignettes the target person's effort contributed more to good intellectual performance (m = 30.0) than to a good athletic performance (m = 26.8) or display of social skills (m = 19.8), $F(2, 143) = 20.10$, $p < .001$. Subjects also differed in their beliefs about the extent to which effort could improve performance as a function of the ability domain. They indicated that effort could most improve athletic ability (m = 4.3) and to a lesser extent intellectual ability (m = 4.1), and could least improve social skills (m = 3.9), $F(2, 143) = 11.94$, $p < .001$.

At the same time, there was evidence of generalizability of implicit theories across ability domains. Correlations within items across domains (e.g., effort improves athletic ability with effort improves intellectual ability) suggest a modest level of cross-domain consistency; 16 out of 18 correlations were significant at the .05 level (average r = .27, range, .19 to .45). It is also notable that the repeated measures ANOVAs on domains revealed that there were no interactions between ability domain and level of self-handicapping or domain and level of self-esteem. Given this evidence of consistency across ability domains, the three domains were averaged to form composites for all remaining analyses.

Implicit theories and ability domain. Table 1 provides evidence for the attempt to gain convergent measures of subjects' implicit theories of ability. In support of the convergence of the measures, ratings of innate causes of ability in the open-ended responses correlated significantly with attributions to innate causes in the vignettes, as did ratings of effort and situational influence in the two measures. Although ratings of innate causes correlated negatively with ratings of effort and situational factors both within the open-ended measure and within the vignette responses, one should keep in mind that the indices are ipsative and the correlations are most likely artifactual. Table 1 also shows that attributions of effort were related to ratings of the extent to which effort can improve the attribute. While innate causes correlated negatively with effort as a cause, citation of innate causes was not significantly related to the belief that effort could improve upon ability.

Implicit theories and achievement goals. Correlations between beliefs about the causes of ability traits and achievement goals are also reported

in Table 1. Consistent with the Dweck and Leggett (1988) model, performance goals were significantly associated with the belief that ability traits were innately determined. Also supportive of Dweck and Leggett's model were the significant positive correlations between the belief that effort could improve ability and the endorsement of learning goals. Although ratings of effort as a cause of ability traits were not significantly related to learning goals, the belief that effort could improve ability was associated with the endorsement of such objectives. None of the measures of implicit theory were related to the motive to avoid work.[3]

Self-Handicapping, Self-Esteem, and Implicit Theories

Table 1 also provides information about the relations among levels of self-handicapping, self-esteem, and implicit theories of ability. As in previous research (Rhodewalt, 1990), self-handicapping was negatively related to self-esteem. More pertinent to the present hypothesis, self-handicapping was positively correlated with the citing of innate factors as causes of ability. Surprisingly, level of self-handicapping was unrelated to the beliefs that effort had an effect on ability. Self-esteem, in contrast, was related to the belief that ability could be improved with effort. Self-esteem was not correlated with any other measure of implicit theory.

In order to assess the independent and combined effects of levels of

3. Because the scale used in this study to measure goals (Personal Goals in School Scale) pertains to academic settings, it is possible that theories about intellectual ability are more closely related to achievement goals than the theories about athletic ability and social skills are. Correlations with the ability domains indicate that this is not consistently the case. Within both the open-ended response and vignette responses, citation of innate factors for athletic ability and intelligence correlated equally negatively with learning goals (open-ended $rs = -.32$ and $-.25$, respectively; vignette $rs = -.30$ and $-.27$, respectively) and equally positively with performance goals (open-ended $rs = .24$ and $.21$, respectively; vignette $rs = .25$ and $.25$, respectively). Implicit innate theories about social skills were unrelated to achievement goals. In contrast, beliefs that effort improves ability were positively correlated with learning goals for intellectual ability and social skills ($rs = .32$ and $.30$, respectively) but not with beliefs about effort and athletic ability ($r = .08$). Beliefs that effort improves athletic ability were positively correlated with performance goals ($r = .21$), while beliefs that effort improves intelligence were negatively correlated with performance goals ($r = -.28$). Beliefs about effort and social skills were unrelated to performance goals ($r = -.10$).

self-handicapping and self-esteem on differences in implicit theories, multiple regression analyses were computed for each implicit theory dependent measure. The regression model for the analyses involved three independent variables, self-handicapping (SH) and self-esteem (SE) scaled continuously, and sex of subject coded dichotomously (female = −1, male = 1). Means were subtracted from both continuous variables so that the three main effect terms all had means of 0. These variables were entered on the first step, three two-way interaction terms were entered second, and the three-way interaction was entered third. These analyses revealed that in their responses both to the open-ended questions and to the vignettes, high self-handicappers were more likely to attribute high ability to innate factors (open-ended responses, $R^2 = .25$, $F[3, 76] = 8.32$, $p < .001$, SH $b = .48$; vignette responses, $R^2 = .11$, $F[3, 76] = 3.22$, $p < .03$, SH $b = .26$).[4] There were no other significant effects across the attributional dimensions of effort or situational factors on either measure of implicit theory.

The self-handicapping effect did not emerge on the malleability measure (how much attributes can be improved with effort); instead, both self-esteem and gender predicted the belief that effort improves ability, $R^2 = .29$, $F(3, 76) = 10.06$, $p < .001$; self-esteem $b = .57$, sex of subject $b = -.22$. The effect for sex of subject indicated that females reported that effort improved ability to a greater extent than did males.

Self-Handicapping, Self-Esteem, and Achievement Goals

Having demonstrated that high self-handicappers were more likely than low self-handicappers to attribute positive ability-related outcomes to fixed, innate sources, differences in achievement goals between high and low self-handicappers can now be examined. Table 1 reveals that, as predicted, level of self-handicapping is positively related to the endorsement of performance goals and work avoidance and negatively related to the endorsement of learning goals. Self-esteem was positively correlated with learning goals and unrelated to performance and work avoidance.

Multiple regression analyses in which levels of self-handicapping,

4. Computing the same regression analyses on each measure (open-ended, vignette, malleability) within each domain (athletics, social skills, intelligence) produced identical patterns of significant results.

self-esteem, and sex of subject were entered on the first step, followed by their two- and three-way interactions, revealed several significant results. As predicted, level of self-handicapping was significantly and independently related to the endorsement of performance goals, $R^2 = .23$, $F(3, 76) = 7.43$, $p < .001$, $b = .48$. Learning goals were endorsed more strongly by females, $b = -.21$, $p < .05$, and, to a lesser extent by high self-esteem subjects, $b = .22$, $p < .10$, $R^2 = .13$, $F(3, 76) = 3.75$, $p < .05$. Although in the predicted direction, level of self-handicapping did not reliably, independently predict the endorsement of learning goals, $b = -.17$, $p < .15$. Finally, level of self-handicapping was positively associated with the goal of work avoidance, $R^2 = .10$, $F(3, 76) = 4.05$, $p < .01$, $b = .30$.

DISCUSSION

Before turning to the main issue of individual differences in self-handicapping, implicit theories, and goals, several general observations warrant mention. The present results support the Dweck and Leggett (1988) social-cognitive model of motivation and personality. Across two response formats, subjects who stated that good performances are attributable to innate person factors also reported that they pursued performance goals in achievement contexts. That is, those with a fixed-entity theory stated their goal was to demonstrate evidence of high ability compared to others. In contrast, those subjects who believed that abilities could be improved with effort stated that they pursued learning goals in achievement situations. For the attributes of athletic ability, intelligence, and social skills, those who believed that abilities could be improved through effort were least likely to endorse performance goals. The pattern of correlations is consistent with the notion that people who view abilities as uncontrollable, fixed traits pursue goals that involve affirmation of the desirable attribute. People who subscribe to the incremental view that abilities are controllable and can be increased with effort pursue learning goals and, to some extent, eschew performance motives.

It appears, however, that people are not "pure" theorists but rather hold both fixed-entity and incremental views to varying degrees. This is evidenced by the *absence* of significant negative correlations between attributions of ability to innate causes and beliefs that these same abilities can be improved with effort. This finding contrasts with the Dweck and Leggett (1988) model in which people are either helpless

or mastery-oriented, performance- or learning-directed, and incremental or fixed-entity theorists. The present data are more in accord with Nicholls (1984), who holds that people pass through a developmental sequence with regard to conceptions of ability. Children believe that ability is a function of effort and gaining competence (incremental), while adolescents come to believe that ability is capacity-like and measured relative to the performance of others (fixed-entity). According to Nicholls, for any individual one conception of ability and, consequently, goal can be rendered salient relative to the other conception as a function of task difficulty, feedback, extrinsic contingencies, and perceived ability. Thus, individual differences in implicit theories are best conceived as differences in emphasis rather than mutually exclusive conceptions of traits.

It was also found that people's implicit theories of ability were similar across the domains of athletics, intelligence, and social skills. This finding is consistent with Weiner's (1985) contention that ability domains are phenotypically different but causally similar.

Returning to the central issue, the results indicate that there are significant differences in implicit theories and goals between high and low self-handicappers. As predicted, high self-handicappers appear to be inclined more toward fixed-entity theories than low self-handicappers. Accordingly, high self-handicappers are guided by performance goals or the motive to obtain positive feedback to a greater degree than low self-handicappers.

In the present investigation, self-esteem was assessed primarily as a control variable. Given the negative relationship between individual differences in self-handicapping and self-esteem (Rhodewalt, 1990), an attempt was made to demonstrate that it was the proclivity to engage in self-handicapping behavior, and not global level of self-esteem, that was related to fixed-entity theories and performance goals. The findings support this contention in that the self-handicapping effects obtained when controlling for level of self-esteem. However, level of self-esteem independently predicted the belief that abilities can be improved with effort and the endorsement of learning goals. These findings take on different meanings depending on one's definition of self-esteem. If, as Baumeister et al. (1989) have argued, self-esteem reflects differences between self-protective and self-enhancing motives, it is consistent that self-enhancing, high self-esteem individuals would be incremental theorists and self-protective, low (actually moderate) self-esteem individuals would be fixed-entity theorists. The findings are not totally

consistent with this prediction. While endorsing both the belief that effort improves ability and learning goals, high self-esteem individuals were not more likely to state that innate factors were less important in determining ability.

A second way of viewing the self-esteem findings is to consider that global self-esteem is positively associated with confidence about the self (Baumgardner, 1990; Campbell, 1990; Pelham, 1991) or self-perceived competence (Nicholls, 1984). Perhaps people confident in their abilities or those believing they possess certain competencies are most willing to acknowledge the role of effort and pursue learning goals in achievement settings. Low self-esteem individuals who are less confident in their abilities or who doubt they possess competency would likely shy away from the risky path of investing effort and attempting to improve those abilities. Again, the current findings are only partially consistent with this view but suggest that global self-esteem bears on the individual's beliefs about ability and the pursuit of achievement goals in ways that are not yet understood.

Previous theorists have suggested that several motives underlie self-handicapping behavior. For example, Jones and Berglas (1978) have proposed that uncertainty about a desired attribute comes from a capricious reinforcement history. People who have had a successful but response-noncontingent past are likely to self-handicap when called upon to perform in the present. C. R. Snyder and Smith (1982) have offered an "Adlerian" interpretation of self-handicapping, which includes the notion that self-handicaps are also employed to conceal underlying feelings of inferiority. The present formulation complements and extends both perspectives. All of the perspectives contain the notion that the proximal motive to self-handicap is uncertainty regarding the ability either to produce evidence of a desired attribute or to avoid damage to one's self-image. Moreover, Jones and Berglas discuss the sources of uncertainty. The present view addresses the more distal motives that would lead one to react to self-uncertainty with self-handicapping rather than with some more "constructive" response such as taking lessons, trying harder, or preparing better. To the fixed-entity theorist the implications of failure are so damaging that it is to be avoided at all costs. Those with an incremental orientation, on the other hand, have much less to lose when they encounter negative feedback. In fact, such information is useful because it suggests that self-corrective action is needed. The crucial difference is that incremental theorists be-

lieve that self-corrective action is possible, while fixed-entity theorists have their doubts.

The present findings are largely consistent with the view that self-handicapping is a response of those who hold a nativist implicit theory of competency and, in turn, pursue performance goals. Although supportive, the findings are correlational and beg the kind of causal interpretation implied by the model. My colleagues and I are currently conducting studies in which we are manipulating implicit theories and performance goals and examining their effects on self-handicapping behavior.

To conclude, the present approach to the study of self-handicapping behavior is in the spirit of current conceptions of personality, which emphasize cognitive substrata as key to understanding the organization of behavior (Cantor, 1990; Cantor & Kihlstrom, 1987). Cantor describes a process whereby individuals interpret their current life tasks in terms of accessible schemata and devise cognitive strategies to guide behavior in the service of meeting life-task demands. I believe that it will be fruitful to investigate self-handicapping from this perspective. Self-handicapping might not seem so "peculiar" when it is viewed as a strategy executed to meet the life task of self-image maintenance by those who hold fixed-entity schemata.

REFERENCES

Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality*, **57**, 547–579.

Baumgardner, A. H. (1990). To know oneself is to like oneself: Self-esteem and self-certainty. *Journal of Personality and Social Psychology*, **58**, 1062–1072.

Berglas, S., & Jones, E. E. (1978). Drug choice as a self-handicapping strategy in response to noncontingent success. *Journal of Personality and Social Psychology*, **36**, 405–417.

Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, **59**, 538–549.

Cantor, N. (1990). From thought to behavior: "Having" and "doing" in the study of personality and cognition. *American Psychologist*, **45**, 735–750.

Cantor, N., & Kihlstrom, J. F. (1987). *Personality and social intelligence*. Englewood Cliffs, NJ: Prentice-Hall.

DeGree, C. E., & Snyder, C. R. (1985). Adler's psychology of (use) today: Personal history of traumatic life events as a self-handicapping strategy. *Journal of Personality and Social Psychology*, **48**, 1512–1519.

Diener, C. I., & Dweck, C. S. (1978). An analysis of learned helplessness: Continu-

ous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology*, **36**, 451–462.

Dweck, C. S. (1975). The role of expectations and attributions in the alleviation of learned helplessness. *Journal of Personality and Social Psychology*, **31**, 674–685.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, **95**, 256–273.

Dweck, C. S., & Reppucci, N. D. (1973). Learned helplessness and reinforcement responsibility in children. *Journal of Personality and Social Psychology*, **25**, 109–116.

Eagly, A. H. (1969). Sex differences in the relationship between self-esteem and susceptibility to social influence. *Journal of Personality*, **37**, 581–591.

Elliot, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, **54**, 5–12.

Frankel, A., & Snyder, M. L. (1978). Poor performance following unsolvable problems: Learned helplessness or egotism? *Journal of Personality and Social Psychology*, **36**, 1415–1423.

Hamilton, D. A. (1971). A comparative study of five methods of assessing self-esteem, dominance, and dogmatism. *Educational and Psychological Measurement*, **31**, 441–452.

Higgins, R. L., & Harris, R. N. (1988). Strategic "alcohol" use: Drinking to self-handicap. *Journal of Social and Clinical Psychology*, **6**, 191–202.

Hirt, E. R., Deppe, R. K., & Gordon, L. J. (1991). Self-reported versus behavioral self-handicapping: Empirical evidence for a theoretical distinction. *Journal of Personality and Social Psychology*, **61**, 981–991.

Jones, E. E., & Berglas, S. (1978). Control of attributions about the self through self-handicapping strategies: The appeal of alcohol and the role of underachievement. *Personality and Social Psychology Bulletin*, **4**, 200–206.

Jones, E. E., & Rhodewalt, F. (1982). The Self-Handicapping Scale. (Available from the second author at the Department of Psychology, University of Utah)

Kolditz, T. A., & Arkin, R. M. (1982). An impression management interpretation of the self-handicapping strategy. *Journal of Personality and Social Psychology*, **43**, 492–502.

Mayerson, N. H., & Rhodewalt, F. (1988). The role of self-protective attributions in the experience of pain. *Journal of Social and Clinical Psychology*, **6**, 203–218.

Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, **91**, 328–346.

Nicholls, J. G., Patashnick, M., & Nolen, S. B. (1985). Adolescents' theories of education. *Journal of Educational Psychology*, **77**, 683–692.

Pelham, B. W. (1991). On confidence and consequence: The certainty and importance of self-knowledge. *Journal of Personality and Social Psychology*, **60**, 518–530.

Pyszczynski, T., & Greenberg, J. (1983). Determinants of reductions in intended effort as a strategy for coping with anticipated failure. *Journal of Research in Personality*, **17**, 412–422.

Rhodewalt, F. (1990). Self-handicappers: Individual differences in the preference for anticipatory self-protective acts. In R. Higgins, C. R. Snyder, & S. Berglas (Eds.), *Self-handicapping: The paradox that isn't* (pp. 69–106). New York: Plenum.

Rhodewalt, F., & Davison, J. (1986). Self-handicapping and subsequent performance:

Role of outcome valence and attributional certainty. *Basic and Applied Social Psychology*, **7**, 307–323.

Rhodewalt, F., & Fairfield, M. (1991). Claimed self-handicaps and the self-handicapper: On the relation of reductions in intended effort to performance. *Journal of Research in Personality*, **25**, 402–417.

Rhodewalt, F., Saltzman, A. T., & Wittmer, J. (1984). Self-handicapping among competitive athletes: The role of practice in self-esteem protection. *Basic and Applied Social Psychology*, **5**, 197–209.

Robinson, J. P., & Shaver, P. R. (1973). *Measures of psychological attitudes*. Ann Arbor: University of Michigan Press.

Shepperd, J. A., & Arkin, R. M. (1989). Self-handicapping: The moderating roles of public self-consciousness and task importance. *Personality and Social Psychology Bulletin*, **15**, 252–265.

Smith, T. W., Snyder, C. R., & Handelsman, M. M. (1982). On the self-serving function of an academic wooden leg: Test anxiety as a self-handicapping strategy. *Journal of Personality and Social Psychology*, **42**, 314–321.

Smith, T. W., Snyder, C. R., & Perkins, S. C. (1983). The self-serving function of hypochondriacal complaints: Physical symptoms as self-handicapping strategies. *Journal of Personality and Social Psychology*, **44**, 787–797.

Snyder, C. R., & Smith, T. W. (1982). Symptoms as self-handicapping strategies: The virtues of old wine in a new bottle. In G. Wery & H. L. Mirels (Eds.), *Integrations of clinical and social psychology* (pp. 104–127). New York: Oxford University Press.

Snyder, M. L., Smoller, B., Strenta, A., & Frankel, A. (1981). A comparison of egotism, negativity, and learned helplessness as explanations for poor performance after unsolvable problems. *Journal of Personality and Social Psychology*, **40**, 24–30.

Strube, M. J. (1986). An analysis of the Self-Handicapping Scale. *Basic and Applied Social Psychology*, **7**, 211–224.

Strube, M. J., & Roemmele, L. A. (1985). Self-enhancement, self-assessment, and self-evaluative task choice. *Journal of Personality and Social Psychology*, **49**, 981–993.

Tucker, J. A., Vuchinich, R. E., & Sobel, M. (1981). Alcohol consumption as a self-handicapping strategy. *Journal of Abnormal Psychology*, **90**, 220–230.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, **92**, 548–573.

Manuscript received January 17, 1992; revised September 29, 1992.