Predictors of Middle School Students' Use of Self-Handicapping Strategies

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Recently, attention has been focused on the strategies children use in school to portray themselves as able to others. By procrastinating, allowing others to keep them from studying, deliberately not trying, and using other "self-handicapping" strategies, students can convey that those circumstances, rather than lack of ability, are the reasons for subsequent poor performance. Survey data from 256 eighth-grade students indicated that boys used those strategies more than did girls, and low achievers more than did high achievers. In separate regressions, feeling self-conscious in school, low self-worth, being oriented to extrinsic and adult approval achievement goals, perceiving that the school emphasized performance goals, and associating with friends with a negative orientation toward academics predicted the use of those strategies. When all significant predictors were entered into one regression analysis, low achievement, being oriented to extrinsic goals, and associating with friends with a negative orientation toward academics remained significant.

For almost two decades, Berglas and Jones and their colleagues have theorized that people actively arrange the circumstances of their behavior so that, if poor performance should occur, those circumstances will be seen as the cause rather than a lack of ability or worth (e.g., Berglas, 1985; Higgins, Snyder, & Berglas, 1990; Jones & Berglas, 1978). That is, people use certain strategies to be seen as the victims of circumstances rather than as unable. Berglas and Jones called those strategies "self-handicapping" because they have the potential to lead to a decrement in performance. A variety of

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self-handicapping strategies have been described and examined including procrastination, alcohol and drug use, test anxiety, moodiness, reported pain and other physical symptoms, shyness, excuses, taking on too many projects, fatigue, and lack of practice or effort (see Higgins et al., 1990, pp. 100-101 for a table summarizing those studies). Whereas some people may use those strategies to deflect attention away from their ability and toward circumstances, it should be pointed out that for some people those may represent real problems that individuals struggle to overcome.

Researchers distinguish between self-handicapping strategies and attributions (e.g., Higgins et al., 1990). Attributions follow success or failure; self-handicapping is an a priori strategy that precedes success or failure. Self-handicapping occurs when an individual takes an active role in shaping attributions. For example, saying that you failed because you were tired is an attribution, whereas deliberately staying up late to use lack of sleep as an excuse in case you should fail is a self-handicapping strategy. There has been debate about whether self-handicapping is primarily a self-protection strategy (wanting to believe in your own head that you are worthy and able) or a self-presentation strategy (wanting to appear worthy and able to others). Most who have examined those strategies believe that they represent an attempt to influence other's perceptions, not to maintain one's own feelings of selfworth (e.g., Covington, 1992; Kolditz & Arkin, 1982; Strube, 1986). Covington (1992) reported that, even when students had convinced others that their performance did not reflect lack of ability, they still described themselves in self-deprecatory terms such as "lazy" and "shiftless."

Self-handicappers appear to be particularly concerned about the differentiation of ability and effort (e.g., Berglas, 1985; Covington, 1992; Garcia & Pintrich, 1993). To use self-handicapping strategies purposefully, children need to have reached an age when they have the cognitive capacity to understand the relationship between ability and effort. It is during early adolescence that children begin to understand that effort and ability covary; that doing well without trying may be seen as a sign of high ability and that failing following high effort may be perceived as a sign of lack of ability (e.g., Nicholls, 1986; Nicholls & Miller, 1983).

Previous studies either found no difference in the use of self-handicapping strategies by males and females or found that males used those strategies more often than did females (see Higgins et al., 1990, pp. 100-101 for a summary). In a sample of seventh-grade students, Garcia and Pintrich (1993) identified more boys than girls as self-handicappers. Although there is some evidence that boys feel more confident than do girls in some academic subject areas (e.g., Eccles, 1983), it appears that boys feel the need to protect their image as able to others more than do girls.

There also is evidence that people with low feelings of worth and efficacy are likely to use those strategies (Berglas, 1985; Garcia & Pintrich, 1993). In the study by Garcia and Pintrich (1993), self-handicappers reported highly salient negative self-schemas. Because self-handicappers are concerned about how their behavior is viewed by others, it is not surprising that the use of those strategies has been associated with social anxiety (e.g., Leary, 1983) and with high self-consciousness in public situations (e.g., Strube, 1986). Self-handicappers do not like being the center of attention and feel awkward in the presence of others, but it also has been reported that they orient toward others in the sense that they shift their behavior to please others or conform to the social situation (Berglas, 1985). Conforming to peers who are negatively oriented to academics could add to the problems experienced by self-handicappers in school.

Self-Handicapping Strategies in the Academic Domain

Most of the research on the use of self-handicapping strategies has been conducted by personality theorists and often in laboratory settings (e.g., Berglas, 1985; Berglas & Jones, 1978; Higgins et al., 1990; Jones & Berglas, 1978; Kolditz & Arkin, 1982; Tucker, Vuchinich, & Sobell, 1981). Recently, researchers have become interested in students' use of self-handicapping strategies to promote their image as able to others in school (e.g., Covington, 1992; Garcia & Pintrich, 1993). By procrastinating, allowing others to keep them from studying, and deliberately not trying, students can set up a situation in which lack of ability is not seen as the reason for subsequent poor performance. Those strategies are conceived of as "motivational" strategies, in contrast to cognitive or learning strategies (Garcia & Pintrich, 1993). Those strategies may lead to decrements in academic performance and thus are potentially "handicapping." If students do not try or purposefully create circumstances that interfere with studying, then performance is likely to suffer.

One of the most important factors influencing the use of self-handicapping is the quality of evaluative demands confronting the individual (e.g., Berglas, 1985; Higgins et al., 1990). Students frequently are faced with evaluative situations in schools. When students perceive that they are being evaluated on the basis of their ability relative to the ability of others, they may be more likely to use those strategies than when they perceive they are being evaluated in terms of their effort, improvement, and mastery of the work. This distinction between an emphasis on relative performance or intellectual development in schools has been discussed by those using achievement goal theory

as a framework for understanding children's motivation and approach to learning (e.g., Ames, 1990; Maehr & Buck, 1992; Maehr & Midgley, 1991; Midgley, 1993). A school emphasis on relative ability, high grades, and competition among students has been characterized as "performance focused," whereas a school emphasis on effort, mastery, and individual progress has been characterized as "task focused" (e.g., Maehr & Buck, 1992; Midgley, 1993). Students who perceive that the policies and practices in the school emphasize relative ability may be particularly concerned with presenting themselves to others as able and therefore may tend to use self-handicapping strategies.

Students' perceptions of the differential emphasis on performance and task goals in schools have been related to their personal achievement goals (e.g., Midgley, Anderman, & Hicks, 1995; Roeser, Midgley, & Maehr, 1994; Urdan, Hicks, & Anderman, 1994). Research on personal achievement goals indicates that working to develop competency (a task goal orientation) was adaptive, whereas working to demonstrate competency (an ability orientation) or to receive rewards or recognition (an extrinsic orientation) was maladaptive (e.g., Ames, 1990; Diener & Dweck, 1980; Graham & Golan, 1991; Meece, Blumenfeld, & Hoyle, 1988; Park, Pintrich, & Midgley, 1992; Urdan & Midgley, 1994; Urdan et al., 1994). For example, a task goal orientation has been associated with the use of "deep" cognitive strategies (elaboration, planning, self-monitoring), whereas an extrinsic or relative ability goal orientation has been associated with the use of "surface" strategies (such as memorization, rehearsal, and guessing) (Ames & Archer, 1988; Graham & Golan, 1991; Nolen, 1988; Park et al., 1992; Pintrich & De Groot, 1990; Roeser, Park, & Anderman, 1992). Garcia and Pintrich (1993) found that personal goals (conceptualized in terms of self-schemas) also were linked to motivational strategies, such as self-handicapping. On the basis of their study with seventh graders, they concluded that "students regulate their learning not only by use of cognitive, metacognitive, and volitional control strategies, but also by use of motivational strategies" (Garcia & Pintrich, 1993, p. 7). Thus it can be expected that students who perceive the learning environment to be performance focused and who are oriented to extrinsic or relative ability goals would use self-handicapping strategies more than would students who perceive the learning environment to be task focused and who are oriented to personal task goals.

Middle school teachers and administrators often despair over students who make excuses, put off doing their work until the last moment, and say they do not even try. The purpose of the current study was to begin to determine the factors that predict the use of those debilitating strategies.

Measuring the Use of Self-Handicapping by Students in the School Setting

Although there has been considerable speculation about the use of selfhandicapping strategies by students in the school setting, empirical verification has awaited the development of a reliable measure. (In the study by Garcia and Pintrich in 1993, the Cronbach alpha for their self-handicapping scale was acceptable but low, $\alpha = .57$). In the current study, a reliable measure of the use of self-handicapping strategies was developed ($\alpha = .80$) and used with a sample of eighth-grade middle school students. Achievement differences and gender differences in the use of self-handicapping strategies were examined, as well as the perceived goal emphases in the school, personal achievement goals, self-perceptions, and social influences as predictors of the use of self-handicapping strategies.

Hypotheses

It was hypothesized that males would use self-handicapping strategies more than would females and that lower achieving students would use them more than would higher achieving students. In addition, it was hypothesized that a perceived emphasis on performance goals in the school; personal extrinsic, relative ability, and adult approval goals; academic self-consciousness, and associating with friends who have a negative orientation to academics would be positively related to the use of self-handicapping strategies. On the other hand, a perceived emphasis on task goals in the school, personal task goals, general self-worth, academic self-efficacy, and associating with friends who have a positive orientation to academics would be negatively related to the use of self-handicapping strategies.

METHOD

Participants

Participants in this study included 256 eighth-grade students from two middle schools in the same school district. The schools were located in a working-class community near a large city in the Midwest. Students were recruited for this study when they were in the sixth grade. All students in the sixth grade in the two middle schools were invited to participate. Parental permission was required, and 79% of the students in the participating schools were given permission to participate. The sample was 49.6% male and 50.4%

female; 87% Caucasian; 10% African American; and 3% Asian American, Hispanic American, or Native American. Eleven percent of the students in the study received free or reduced-fee lunches on the basis of low family income. School records could not be used to compare students who did or did not participate, because access to records was not allowed without parental permission. However, the number of students receiving special education services did not differ for those who participated and those who did not. Guidelines for the proper treatment of human subjects were followed.

Procedure

Survey data for this study were collected in the spring of 1993. Surveys were administered to students in their classrooms by trained research assistants. The surveys took approximately 40 minutes to complete. Students were told that this was not a test and that there were no right or wrong answers. Students were told also that the information in the survey would be kept confidential and that no one at home or at school would see their answers. After surveys were completed, students' names were replaced with ID numbers and covered with a sticker.

Measures

Surveys included 11 scales from the Patterns of Adaptive Learning Survey (PALS; Midgley, Maehr, & Urdan, 1993). Included were scales measuring students' perceptions of the school as emphasizing task and performance goals; personal task, relative ability, extrinsic, and adult approval goals; self-efficacy, self-worth, and self-consciousness in school; and students' orientation to peers with positive or negative attitudes toward academics. In previous studies (e.g., Anderman & Midgley, 1994; Midgley et al., 1995; Park et al., 1992; Urdan et al., 1994), the PALS scales measuring perceived school goals and personal achievement goals have exhibited good construct validity. The Cronbach alphas on the 11 scales ranged from .69 to .88. Constructs, sample items, and alpha coefficients are presented in the appendix.

Measurement of self-handicapping. Because there was no academic self-handicapping scale available with good reliability, a 5-item self-handicapping scale was developed by the research team. As described earlier, many different handicapping strategies have been suggested and examined. Three criteria were used to select the types of handicapping strategies to assess in the current study: the relevancy of the strategy to the academic domain, the appropriateness of the strategy for this age group, and the acceptability of the

strategy to the school district. For example, although drug use has been cited as a possible self-handicapping strategy, permission had not been received from the district to ask the participating eighth graders about drug or alcohol use. Other self-handicapping strategies suggested in the literature, such as moodiness and reported pain, did not seem to work well in the academic domain. In particular, this scale focused on self-handicapping strategies that had been mentioned by middle school teachers. None of the items in the self-handicapping scale were skewed. The items in this scale formed a single factor and the correlations between each item and the total scale ranged from .54 to .65. The internal consistency as assessed by the Cronbach alpha was .80. As indicated in the section describing the results, the scale shows evidence of construct validity, relating to other variables in ways predicted by the theory. In the survey, the self-handicapping items were introduced with these sentences: "Below are examples of things most students do at one time or another. Please be very honest and tell us how true each of these is for you. No one at home or school will ever see your answers." Because the self-handicapping scale is new, all the items are presented in the appendix.

Students' year-end grades were collected from school records. An overall grade point average (GPA) was calculated for each student by computing the average of each student's grades in the core academic subjects (English, math, science, and social studies). Grades were coded using a 14-point scale (0 = F. 13 = A+).

RESULTS

A goal of this study was to determine the ways in which students' personal goals, self-perceptions, social relationships, and perceptions of the goals emphasized in school were related to their reported use of self-handicapping strategies. Another goal was to examine gender and achievement-level differences in the use of those strategies. As a first step, a correlation matrix was produced to examine the bivariate relationships between these constructs (see Table 1).

As expected, a significant, positive correlation was found between the reported use of self-handicapping strategies and (a) perceiving that the school emphasized performance goals (r = .29), (b) holding personal extrinsic goals (r = .42), (c) holding adult approval goals (r = .25), (d) feeling self-conscious in the school setting (r = .13), and (e) associating with friends who have a negative orientation to academics (r = .56). Also, as expected, there was a significant negative relationship between the use of self-handicapping strategies and (a) perceiving that the school emphasized task goals (r = -.24), (b) holding

TABLE 1: Correlations Among Self-Handicapping and Predictor Variables

Variable	1	8	B	4	C)	9	^	8	6	0	#	12	13	4	
1. Self-handicapping	1 3														
2. School task focus	24	l													
School performance															
focus	**	46**	l												
4. Task goals	24**	.48*	23**	I											
Relative ability goals	8	8	¥.	. 1 2	1										
Extrinsic goals	.42**	23**	43**	28**	.43**	١									
7. Adult approval seeking	.25**	i. 2	.22** .02	8	.47**	57**	ı								
8. Negative friend															
academic orientation	.56**	32**		.35**39**	ġ	.48	.20**	١							
Positive friend															
academic orientation	25**	.45		.53		15**	8		١						
10. Self-efficacy	27**	.37**		•••		16**	9		.51*	I					
11. Self-worth	32**	.26**		.40 *		32**	÷		.30	.42**	I				
12. Self-consciousness	. 4	12		8		.28 *	*		80.	9	21**	I			
13. Gender	15	.16**		8.		18**	15		.23**	<u>,</u> 8	ij	.07	l		
14. Overall GPA ⁸	38	.19	12	.21**	.20**	9.	9.	44**	£.	5	2	ġ	1.	١	
×	2.18	3.58		3.25		2.57	2.67		3.47	3.72	3.74	2.90	l	8.01	
SD	%	1.		.79		83	.80		8. 8.	<u>∞</u>	1.03	.84	l	3.00	

NOTE: For gender: boys = 1, girls = 2. GPA coded using a 14-point scale: 0 = F, 13 = A+. a. GPA = grade point average. $^*p < .01$; $^*p < .01$; $^*p < .01$.

personal task goals (r = -.24), (c) academic efficacy (r = -.27), (d) self-worth (r = -.32), and (e) associating with friends who had a positive orientation to academic achievement and effort (r = -.25). Contrary to expectations, being oriented to relative ability goals was unrelated to the use of self-handicapping strategies (r = .02). Because there was no significant relationship between relative ability goals and the use of self-handicapping strategies, relative ability goals were not included in the subsequent regression analyses.

Gender and Achievement Differences

To examine gender and achievement differences in the reported use of self-handicapping strategies, independent samples t tests were conducted. The results of these analyses indicated a significant difference in the reported use of self-handicapping strategies by boys and girls, t(254) = 2.70, p < .01. Boys reported using these strategies more than did girls (for boys, $\overline{X} = 2.27$, SD = .84; for girls, $\overline{X} = 1.99$, SD = .83). Moreover, comparisons of students split at the median on GPA revealed that low achievers reported using self-handicapping strategies more than did high achievers (for the low GPA group, $\overline{X} = 2.44$, SD = .85; for the high GPA group, $\overline{X} = 1.83$, SD = .75), t(254) = 6.14, p < .001). Finally, using a method described by Aiken and West (1991), a multiple regression was conducted to determine whether there was a significant interaction between gender and GPA. In this analysis and all subsequent regression analyses. GPA was treated as a continuous variable centered at the mean to facilitate its use in interaction terms (Aiken & West, 1991; Jaccard, Turrisi, & Wan, 1990). The results of this analysis revealed a significant interaction, with high-achieving boys reporting greater use of self-handicapping strategies than was reported by high-achieving girls. Regions of significance were determined using the Johnson-Neyman technique (Pedhazur, 1982). This analysis revealed that the predicted values on the self-handicapping scores of boys and girls differed significantly when GPA scores were 7.98 (B minus) or higher. At lower levels of GPA, the girls and boys did not differ significantly in their use of self-handicapping strategies. This interaction is depicted in Figure 1.

Regression Results

Multiple regression analyses were conducted to determine (a) the predictive power of each group of variables (e.g., personal achievement goals, self-perceptions, perceptions of school goal focus, and social variables); (b) the unique relationship between each predictor variable within each group and self-handicapping strategies; and (c) the strongest predictors across

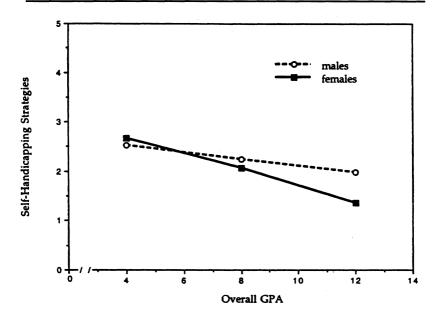


Figure 1: Interaction of Gender and Achievement in the Use of Self-Handicapping Strategies

differing types of variables. To examine these issues, a series of hierarchical regression analyses were conducted. In these analyses, the goal was to determine how much explanatory power a set of related predictors had as a group (e.g., self-perceptions), after accounting for any variance explained by GPA and gender. Because GPA and gender were significantly related to several of the other predictor variables as well as to self-handicapping, it was important to ensure that the relationship between a given set of variables and self-handicapping was not confounded with gender or achievement-level differences. Therefore, gender and GPA were entered first in the regression, followed by the set of related variables entered as a group in the second step of the regression. The final step in each regression (Step 2 in models where there was no significant interaction, Step 3 in the model with the significant interaction) is the same as simultaneous multiple regression. In the final step, the relationship between each predictor and self-handicapping is controlled for all other predictors. The gender by GPA interaction term was included in all regression analyses as the third step in the model, but is only reported when it emerged as a significant predictor.

TABLE 2: Hierarchical Regression Analyses Using Gender, GPA, a Personal Achievement Goals, Self-Perceptions, and Social Variables to Predict Self-Handicapping (N = 256)

Anal (Go				ysis 2 erceptions)		ysis 3 Variables)
Variable	β Step 1	β Step 2	β Step 1	β Step 2	β Step 1	βStep 2
Step 1						
Gender	− .13*	ns	13*	- .17**	13*	ns
Achievement						
(GPA)	36***	36***	36***	30***	36***	20***
Goals (Step 2,						
Analysis 1)						
Task goals		ns				
Extrinsic go	als	.42***				
Self-perceptions	,					
(Step 2, Analy	sis 2)					
Self-efficacy	,			ns		
Self-conscio	ousness			.12*		
Self-worth				26***		
Social variables						
(Step 2, Ana	alysis 3)					
Negative fri	end					
orientatio	ก					.43***
Positive frie	nd					
orientatio	n					ns
Adult appro	val					
seeking						.18***
F value	23.49***	59.62***	23.49***	20.83***	23.49***	46.33***
Intercept	3.30	1.89	3.30	3.48	3.30	1.02
Adjusted R ²	.15	.31	.15	.24	.15	.35
Change in R ²	-	.16	_	.09		.20

NOTE: β indicates standardized regression coefficient. Gender was coded 1 = boys, 2 = girls. Regressions were run with all predictors for each step in the model, then rerun with nonsignificant (ns) predictors removed to reduce error and inflated R^2 . a. GPA = grade point average.

Regression results for personal achievement goal orientation, selfperceptions, and social variables. Separate regression analyses were conducted examining achievement goal orientation, self-perceptions, and social variables as predictors of the reported use of self-handicapping strategies. The standardized regression coefficients, adjusted R^2 , change in R^2 , and Fvalues for each of these three regression models are presented in Table 2. It should be noted that Table 2 contains the results of three different regression

^{*}p < .05; **p < .01; ***p < .001.

analyses. The results for the analysis regressing self-handicapping strategies on students' achievement goal orientation are summarized in the first two columns of Table 2. These results indicate that students' extrinsic goal orientation explained an additional 16% of the variance in the use of self-handicapping strategies beyond the variance explained by gender and GPA. With all four predictors in the model, GPA ($\beta = -.36$) and extrinsic goal orientation ($\beta = .42$) were the only significant predictors of self-handicapping.

The results of the regression analysis using students' self-perceptions as predictors of the use of self-handicapping strategies are presented in the third and fourth columns of Table 2. Students' feelings of self-worth and self-consciousness accounted for 9% of the variance in self-handicapping strategy use beyond the variance explained by gender and GPA. In this regression model, gender (b = -.17) and GPA (b = -.30) were both significant predictors of self-handicapping. Self-efficacy did not predict self-handicapping, but self-consciousness (b = .12) and self-worth (b = -.26) were both significant predictors of self-handicapping after controlling for the effects of GPA and gender.

In columns 5 and 6 of Table 2, the results of the regression with the social variables as predictors are summarized. As a group, the social variables were the strongest predictors of the reported use of self-handicapping strategies. The scales assessing adult approval seeking (β = .18) and associating with friends with a negative orientation to academics (β = .43) were significant, positive predictors and together explained an additional 20% of the variance in self-handicapping beyond that explained by gender and GPA. Although the scale assessing an association with friends with a positive orientation to academics had a significant bivariate relationship with self-handicapping strategies (see Table 1), this relationship dropped from significance when examined in conjunction with the other predictors in the model.

Regression results for perceived school goal emphases. The results of the regression examining students' perceptions of the goals emphasized in school as predictors of the use of self-handicapping strategies are presented in Table 3. These results are reported separately because, unlike the other regressions, there was a significant gender by GPA interaction. For ease of interpretation, the results of this three-step hierarchical regression are presented in a separate table from the other analyses (see Table 3). After accounting for the variance explained by gender and GPA, students' perceptions of the school as performance focused accounted for only 5% of the variance in self-handicapping. Perceiving the school as performance focused was a significant predictor of self-handicapping strategy use ($\beta = .26$), whereas perceiving the school as

TABLE 3: Hierarchical Regression Analysis Using Gender, GPA,^a and Perceptions of School Goal Emphasis to Predict Self-Handicapping (*N* = 256)

Variable	β Step 1	β Step 2	β Step 3
Step 1			
Gender	−.13 *	ns	ns
Achievement (GPA)	36***	34***	20**
Step 2			
School performance focus		.26***	.27***
School task focus		ns	ns
Step 3			
Gender × GPA			20**
<i>F</i> value	23.49***	32.58***	24.41***
Intercept	3.30	1.39	1.39
Adjusted R ²	.15	.20	.22
Change in R^2	_	.05	.02

NOTE: β indicates standardized regression coefficient. Gender was coded 0 = boys, 1 = girls. Regressions were run with all predictors for each step in the model, then rerun with nonsignificant (*ns*) predictors removed to reduce error and inflated R^2 .

task focused was not a significant predictor. In this regression model, the gender by achievement interaction term also was significant ($\beta = -.20$).

Regression results for all significant predictors. To determine which of the variables were the strongest predictors of the reported use of self-handicapping strategies, a final multiple regression was conducted. In this regression, gender and GPA again were entered into the equation first. Next, all of the significant predictors from the previous regression models were entered simultaneously. The results of this analysis are presented in Table 4.

The change in R^2 in the second step of the regression was .22, indicating that as a group the significant predictors from the previous analyses explained an additional 22% of the variance in self-handicapping beyond that which was explained by gender and GPA. With all of the variables in the model, only GPA ($\beta = -.23$), associating with friends with a negative orientation to academics ($\beta = .31$), and an extrinsic goal orientation ($\beta = .28$) significantly predicted students' reported use of self-handicapping strategies. Self-consciousness, self-worth, a perceived school emphasis on performance goals, seeking the approval of adults, and gender all dropped from significance when all of the signifi-

a. GPA = grade point average. p < .05; **p < .01; ***p < .001.

TABLE 4: Hierarchical Regression Analysis Using Gender, GPA,^a and Significant Predictors From Previous Analyses to Predict Self-Handicapping (N = 254)

Variable	β Step 1	β Step 2
Step 1		
Gender	–.12 *	ns
Achievement (GPA)	36***	23***
Step 2		
Negative friend orientation		.31***
Adult approval seeking		ns
Extrinsic goals		.28***
School performance focus		ns
Self-worth		ns
Self-consciousness		ns
<i>F</i> value	22.46***	51.43***
Intercept	3.07	1.20
Adjusted R ²	.15	.37
Change in R ²	_	.22

NOTE: β indicates standardized regression coefficient. Gender was coded 1 = boys, 2 = girls. Regressions were run with all predictors for each step in the model, then rerun with nonsignificant (*ns*) predictors removed to reduce error and inflated R^2 . a. GPA = grade point average.

cant predictor variables from the previous regressions were included in the model.

DISCUSSION

This was a first attempt to relate the reported use of academic self-handicapping strategies by young adolescents to perceptions of the learning environment, personal achievement goals, self-perceptions, and social relations in the school setting. The results from this study provide some support for the results found earlier in laboratory settings. Looking at the table of correlations, the only unexpected finding is the lack of a relationship between the use of self-handicapping strategies and holding relative ability goals. Many of the items in the relative ability scale represent a desire to demonstrate how smart one is: For example, "I like schoolwork that lets me show how smart I am," and "I like to show my teachers I'm smarter than the other kids." The point is made in the literature that self-handicappers try to avoid

^{*}p < .05; **p < .01; ***p < .001.

situations that are diagnostic of their ability (e.g., Higgins et al., 1990). Although self-handicappers are very concerned about appearing able relative to others, they are not likely to express a strong preference for schoolwork and situations that will make their actual level of ability salient to others.

This was an exploratory study, and further studies will be necessary to establish the concurrent and predictive validity of the self-handicapping scale as well as its reliability over time. It is encouraging that the factor analysis indicated that these items form one factor. The Cronbach alpha of .80 points to the internal consistency of the scale. In addition, the finding of significant relationships between the self-handicapping scale and other variables in expected, meaningful directions and magnitudes indicates that the scale has construct validity.

Because this was a first study, a series of regression analyses was run to learn as much as possible about the relationships among the variables. However, it needs to be emphasized strongly that the regressions were not independent of each other, as the final regression shows. In the final model, some variables dropped from significance because they shared predictive power with other variables, as the moderate correlations among the predictor variables presented in Table 1 foreshadowed. For example, associating with peers who were not oriented to academics shared variance with self-worth. and in the final model self-worth was no longer a significant predictor of the use of self-handicapping strategies.

It is interesting that higher achieving girls reported that they did not use self-handicapping strategies, whereas some higher achieving boys did use them. Other studies of the use of those strategies outside the academic domain (e.g., Berglas & Jones, 1978) and within the academic domain (e.g., Garcia & Pintrich, 1993) found that males used self-handicapping strategies more than did females. In the current study, the gender difference was significant only among students above the mean GPA. This result indicates that higher achievement does not reduce boys' concerns with appearing able to others as much as it reduces girls' concerns with appearing able to others.

As was expected, these data indicate that students who use handicapping strategies are low achieving, have low regard for themselves, and are concerned about performing in front of their peers. In the regression using self-perceptions to predict self-handicapping, self-worth and self-consciousness were significant positive predictors after controlling for gender and achievement, but self-efficacy was not. Covington (1992) theorized that it is others' perceptions of one's general sense of worth that are under attack and must be protected by using these strategies. In the regression using students' personal achievement goals to predict self-handicapping, holding extrinsic goals was a strong predictor, after controlling for gender and achievement. Holding extrinsic goals remained a positive predictor when all of the significant variables from the separate regressions were entered into the equation (see Table 4). These students want and need this extrinsic evidence of their success. As suggested by Berglas (1985), "The self-handicapper's competence image rests precariously upon external performance criteria or the judgment of significant others as opposed to being experienced as a stable. internal component of the self' (p. 241). More information is needed about the influences on students' orientation to extrinsic goals if the incidence of self-handicapping is to be reduced. Harter, Whitesell, and Kowalski (1992) asked sixth-, seventh-, and eighth-grade middle school students about the emphasis on academic performance and competence evaluation in school during the current year and during the previous year. The biggest increase occurred for the eighth graders. Students who perceived this increase were more extrinsically motivated than those who did not. Parents also may play a role in this orientation to extrinsic goals, but very little work has been done to examine parental influences on children's achievement goals.

In the regression using perceptions of the goals emphasized in the school as predictors of the use of self-handicapping, it was the perceived emphasis on performance goals that emerged as a significant predictor. Students are likely to use those strategies when they perceive that their ability relative to others is a salient aspect of the learning environment and that competition among students is encouraged. Unfortunately, there is evidence that teachers and students perceive a significantly greater emphasis on performance goals in the middle school environment than in the elementary school environment (e.g., Anderman & Midgley, 1994; Midgley et al., 1995). This is further evidence of a developmental mismatch between students' stage of development and the learning environment in which they are placed (e.g., Eccles & Midgley, 1989; Feldlaufer, Midgley, & Eccles, 1988). Just as students are developing a more differentiated conception of ability, they are put in an environment in which relative ability becomes more salient, making the "double edged sword" of ability and effort, described by Covington and his colleagues (Covington & Beery, 1976), particularly meaningful. It must be emphasized, however, that in this study the perceived emphasis on performance goals in the school accounted for only 5% of the variance in self-handicapping after controlling for GPA and gender. When all significant predictors were included in the final regression, the perceived emphasis on performance goals in the school no longer emerged as a significant predictor.

With the recent emphasis on reforming middle-level schools (e.g., Carnegie Council on Adolescent Development, 1989), the relationship between changes in the learning environment when children move to middle-level schools and the use of those debilitating strategies becomes an impor-

tant avenue to pursue. There is evidence that the middle school learning environment differs in many ways from the elementary school learning environment (Eccles & Midgley, 1989; Feldlaufer et al., 1988; Midgley et al., 1995). Middle school teachers have described students who are continually making excuses, put off their work until the last moment, and do not even try. These teachers were puzzled and frustrated by this type of behavior. It will be particularly important to determine if aspects of the learning environment encourage or discourage the use of those strategies. With this information, it may be possible to design classrooms and schools in which children no longer feel the need to use those strategies to protect their image.

In the regression assessing social predictors of the use of self-handicapping strategies, associating with friends with negative feelings about school and academics, and desiring approval from adults both emerged as significant predictors. Desiring adult approval appears to be another manifestation of the need for extrinsic reinforcement. Note that the correlation between holding extrinsic goals and desiring adult approval (r = .57) is one of the strongest in Table 1. It was somewhat surprising that associating with friends who devalue school emerged as the strongest predictor of the use of self-handicapping strategies when all the significant predictors were entered into the final equation. This is a particularly interesting finding given that it emerged even after controlling for the effects of achievement, as measured by year-end grades. There are a number of possibilities here. As suggested earlier, there is evidence that self-handicappers tend to conform to the values of peers. The current study indicated that they conform to peers who devalue school. Some have suggested (e.g., Berglas, 1985) that associating with friends who devalue school may be, in and of itself, a self-handicapping strategy. Students who are unsure of their ability and want to protect their image may select friends who devalue school in order to be able to say that is the reason they do not do as well as they are able. Certainly, parents have been heard to say that their children are capable of doing much better, but it is the friends their children associate with that pose an obstacle to their success.

During early adolescence, there is increasing concern about peer relationships, and students are particularly vulnerable to the influence of their peers (Berndt, 1979; Berndt & Keefe, 1992; Juvonen & Weiner, 1993; Steinberg & Silverberg, 1986). Indeed, early adolescent boys have been found to be more susceptible to the negative influence of peers than have girls, a finding that is consistent with this study (e.g., Berndt, 1987). To understand this phenomenon, it may be helpful to conduct interviews with students or to observe student-led focus groups.

This study has a number of limitations. Although the scale used in the current study to measure self-handicapping strategies by means of written

questions is an improvement on past efforts, the scale can be improved further. Three issues seem to be particularly important. First, self-handicapping strategies must be distinguished from attributions. Self-handicapping strategies are anticipatory and the items in the scale should reflect this. The scale used in this study contains two items that are really attributions. The scale has now been revised so that all items assess a priori strategies and not attributions. Second, there is the issue of self-presentation. Students use those strategies so that they can convey to others that there are reasons (other than lack of ability) that would explain low performance if that should occur subsequently. In other instruments (e.g., Garcia & Pintrich, 1993; Strube, 1986), self-presentation is not made explicit. Items in their studies include "I tend to wait to do things for school until the last minute," "I overindulge in food and drink more often than I should," and "I am easily distracted by noises or my own day dreaming when I try to read." The assumption is made that if people use those strategies, it is to provide an excuse if poor performance should occur. In several of the items in the scale used in the current study, the role of self-presentation is made explicit. That is, the items include the phrase "so they can say that is the reason." The self-handicapping scale has been revised so that self-presentation is explicit in all the items. Third, there is the issue of handicapping. To be handicapping in the true sense, the strategies must have the potential for undermining one's performance. (If you find reasons to avoid studying or you purposefully do not try hard, then your performance will probably suffer). The issue of whether those strategies are potentially handicapping also addresses the point of whether they are imagined or real (Covington, 1992). If they are only imagined, then are they necessarily self-handicapping? These are all matters to consider as attempts are made to refine and improve the measurement of academic self-handicapping.

In future studies, other predictors of the use of those strategies should be considered. Berglas and Jones (1978; Berglas, 1985) suggested that self-handicappers may be the victims of noncontingent success experiences; that they may have a history of empty praise and condescending encouragement. It would be interesting to survey parents to determine the type of feedback they give to their children and the circumstances under which they provide praise and criticism. The role of ethnicity also should be examined. Covington cites Suarez-Orozco (1989) and Fordham and Ogbu (1986) in support of the idea that African American and Hispanic children do not share the same achievement goals as those espoused by White middle-class children. Those African American and Hispanic students who do not perform well may retain a sense of self-efficacy and self-esteem (Hare, 1985; Rosenberg & Simmons, 1972), because their feelings of well-being may have little to do with performing well at school. Demonstrating to their peers that they are able may have more

to do with out-of-school abilities and less to do with academic performance, particularly outperforming others in school. Therefore, they may not need to engage in academic self-handicapping to maintain their image with their peers. Much more research involving minority students is needed (Graham, 1992), considering not only differences and similarities across groups but also within groups (Garcia & Pintrich, 1994).

This study is a first step in understanding the factors that contribute to the use of strategies that teachers find so frustrating and that, in some cases, can further undermine the performance of low-achieving students. Using those strategies may be a first sign that children, particularly those with low self-esteem, are disengaging from the learning process and are facing an uncertain academic future. However, these children have not given up on themselves. That is, they still care enough to want to appear able to others. This is a hopeful sign. For these children, how others perceive them still matters. When young adolescents begin to use those strategies, it may be very important for parents and teachers to react with help and support rather than with criticism and negativism. If parents and teachers can help those children develop positive strategies for improving performance, then the use of self-handicapping no longer will be necessary. In turn, self-esteem should be enhanced. Children may be telling us something very important when they use those strategies, that they still care, whereas the assumption has been made that the use of those strategies is a sign that they do not care.

APPENDIX: Constructs, Items, and Alphas

Extrinsic goals

Five items, $\alpha = .72$

The main reason I do my schoolwork is because we get grades.

An important reason I try to do well in school is to get special privileges.

Relative ability goals

Five items, $\alpha = .82$

I would feel successful in school if I did better than the other students in my classes.

I like schoolwork that lets me show how smart I am.

Task goals

Six items, $\alpha = .81$

The main reason I do my work in school is because I like to leam.

I feel most successful in school when I learn something I didn't know before.

Self-efficacy

Six items, $\alpha = .86$

I can do even the hardest schoolwork if I try.

Even if the work in school is hard, I can learn it.

Self-worth

Four items, $\alpha = .88$

I am happy with myself.

I wish I were different. (reversed)

appendix continues

Appendix Continued

Self-consciousness Five items, $\alpha = .69$

I worry that I will look dumb in my classes.

I feel self-conscious in my classes at school.

Associating with friends with a Eight items, $\alpha = .79$

negative orientation to academics

To be accepted by my friends, I sometimes let my schoolwork slip.

We think kids who do well in school are nerds.

Associating with friends with a positive Five items, $\alpha = .81$

orientation to academics

We put a lot of effort into our schoolwork.

My friends encourage me to do my schoolwork.

Adult approval seeking Five items, $\alpha = .76$

I try to do well in school so my family will be proud of me.

I do my schoolwork because I want my teacher to like me.

School performance focus (in this school) Seven items, $\alpha = .79$

Teachers treat kids who get good grades better than other kids.

We are encouraged to compete against each other for grades.

School task focus (in this school) Eight items, $\alpha = .85$

Every student can be successful.

Mistakes are okay as long as we are learning.

Self-handicapping strategies Five items, $\alpha = .80$

Some students put off doing their work until the last moment so they

can say that is the reason they didn't do as well as they had hoped.

How true is this for you?

Some students purposely don't try hard in school so that if they don't

do well, they can say it's because they didn't try. How true is this for you?

Some students tend to make excuses when they don't do as well on schoolwork as they should ("I wasn't feeling well, I had to take care of my sister, etc.").

How true is this for you?

Some students blame others when they don't do as well in school as they should ("My friends kept me from studying, My teachers didn't explain it to us, etc."). How true is this for you?

Some students who get a low grade tell their friends they didn't study hard. How true is this for you?

Five-point scale, 1 = not at all true, 3 = somewhat true, 5 = very true.

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