

Teacher Expectations and Student Motivation

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Models of teacher expectancy effects, several of which are reviewed in this volume, suggest that student motivation is an important link between teacher behavior and student achievement. But rarely have teacher expectancy models actually specified how motivation influences student achievement behaviors. Instead, these models have tended to focus on the link between teacher expectancies and teacher behavior, and have treated student motivation as a rather global, ill-defined construct. In this chapter we will explore the nature of student motivation and its relationship to achievement. In addition, we will suggest specific ways in which teacher behavior either facilitates or retards student motivation. However, since we are most concerned with the debilitating effects of low motivation, our discussion will focus primarily on the dynamics associated with under-achievement, or with what Bahad, Jacinto, and Rosenthal (1982) have labelled the "Golem" effects of low teacher expectancy.

The link between motivation and school achievement has generated consistent interest over the years among both developmental and educational psychologists. This work is quite complex and has often yielded conflicting findings. Therefore we will begin the chapter with some general comments on the relations between motivation and achievement in the classroom. We will also suggest a general framework for thinking about student motivation. This framework, based on the students' perspective of school

work, will provide the structure for the remaining sections of our chapter.

Motivation and Achievement in the Classroom: A General Overview

It is now widely accepted that motivation influences achievement. It is also the case, however, that achievement influences motivation (Uguroglu & Walberg, 1979). Therefore, the link between motivation and achievement can best be characterized as a feedback system; that is, positive motivation facilitates achievement which, in turn, facilitates continued positive motivation. Or high achievement facilitates the development of positive motivation which, in turn, facilitates continued high levels of achievement.

Since both of these causal sequences exist, it is difficult to determine how or when the low motivation-low achievement cycle is set into motion. In addition, the optimal point of intervention is not clear. This problem becomes even more complex when we consider that the optimal point may vary depending on the age and sex of the child, and on the nature of the child's motivational problem. The relation between motivation and achievement is different for children of different ages. Not only does the strength of the relationship change with age (it is stronger for older children), but the very nature of the relationship may change with age. Young children appear to be less susceptible to the negative impact of failure on motivation.

Negative feedback does not seem to deter their optimism about future success. In addition, their motivational system is relatively simple. In contrast, older children are more susceptible to the negative effects of failure. Furthermore, since the motivational system of older children is more complex than the motivational system of the younger child, the magnitude and nature of the effects of failure on motivation depend on characteristics of both the child and the situation. Given these developmental differences, the optimal teaching strategies to avoid negative teacher expectancy effects may be quite different for children of various ages.

The situation is further complicated by the fact that an individual's achievement motivation varies across domains of achievement. One person will like math and hate English; another will like English but hate math. While global measures of motivational constructs (like need achievement, or general self esteem, or locus of control) exhibit some cross-situational consistency, by far the strongest relations between motivation and achievement emerge for motivational constructs that are specific to the achievement domain being studied, e.g., between measures such as confidence in one's math ability and performance on math tests. These results suggest two important points: a) we need to think about the processes that lead to differential motivation across domains, and b) we should pay more attention to intra-individual variations in motivation in

developing broad models of the link between motivation and achievement.

Finally, achievement in a school setting has some unique properties that make the relationship between motivation and achievement (especially for low academic skill students) different in the school setting than in the laboratory or non-school settings. Children have to attend school until they are 16 and have to take a prescribed set of courses at least until high school. They can not escape the situation by choice. This fact has some important implications for our understanding of the link between motivation and achievement in school settings. For example, most motivational theories suggest that one strategy for dealing with low expectations of success and high anxiety is to avoid the situations which elicit these reactions and to focus one's achievement efforts on activities and tasks for which one has reasonably high expectations for success. In fact, in non-school settings, low expectancies have an adaptive function. They help individuals select tasks of the appropriate level of difficulty. However, for the student doing poorly in school, this option is often not available. Students typically do not have a choice over the tasks they will perform in school. In addition, certain school practices, such as the use of norm referenced grading procedures, whole class instruction, and lock step curricula, exacerbate this problem because they force low skill level children into intolerable situations from a

motivational perspective. These children are stuck in a situation in which success is really out of their control. They can not select tasks of appropriate difficulty, they are essentially doomed to failure or very low level success. This characteristic of the school setting may be responsible for most of the counterproductive academic behaviors we find among low skill-level children (see Covington & Beery, 1976; Eccles, Midgley, & Adler, in press; Nicholls, 1979).

Having made these general introductory comments, let us turn to the issue of student motivation. What exactly is student motivation and how does it influence achievement? Psychologists have described many motivational constructs and have suggested a variety of hypotheses relating motivation to achievement. Motivation is presumed to impact on achievement behavior in a variety of ways, influencing a wide range of behaviors including persistence in the face of difficulty, the decision to try or not to try a new achievement task, selection of which courses to study and which to avoid, help seeking, test-taking strategies, attention during the learning phase of achievement, etc. Consequently, as we think about the impact of classroom processes on motivation, we have to keep in mind the complexity of this concept called student motivation.

For the student, motivational influences on achievement behaviors can be summarized with three basic questions: "Can I succeed at this task?", "Do I want to succeed at this task?", and "What do I need to do in order to succeed at

this task?" Achievement is optimized when students' perceive that they can master the material (i.e., when self-concept, expectations and sense of personal efficacy are high), when they think that mastering the task is important, (i.e., when subjective task value is high), and when their attention is focused on task-mastery rather than on the evaluation of their ability (i.e., when mastery orientation is high and test anxiety is low). Conversely, students' efforts to achieve will be lowest when they think they can't master the material; when they think that mastering the material is not very important, very fun or very useful; or when they do not know what they need to do in order to move onto the next step of task mastery. This schema is summarized in Table 1.

Insert Table 1 About Here

The remainder of our chapter is organized around these three motivational questions. As we discuss each question, we will explore the impact of teacher/student interaction patterns on student motivation, reviewing both the sparse literature assessing the impact of within-class student/teacher interaction patterns on student motivation and the broader research literature linking general classroom processes to student motivation. We will argue that the effects emerging in both of these literatures can be related to teachers' answers to the same questions; that is, Can I succeed at teaching these children? Do I want to put out

the effort necessary to teach them? and What do I need to do in order to teach them successfully? More specifically, we will argue that teachers' influences on student motivation are mediated by teachers' confidence in their ability to teach all students (teachers' sense of personal efficacy) and by the teachers' knowledge of effective teaching practices for children of various ability levels. In other words, we will argue that low teacher expectancies have a debilitating effect (a Golem effect) on children's motivation to learn when the teacher believes that low expectancy children can't improve their performance and when the teacher doesn't know effective teaching practices for low skill level children -- that is, when teachers believe that they can not succeed at teaching low skill-level children.

Cognitive-Motivational Constructs:

Can I Succeed?

One of the most important motivational questions facing a student is "Can I succeed at this task if I choose to try?" Both educators and psychologists have argued that the answer to this question is critical to a student's motivation. If the answer is yes, then a student will, at least, move onto next question - "Do I want to?" If the answer is no, then the student will, in all likelihood, give up. In this section we will discuss the motivational constructs linked to this question, in particular, self-

concept of ability and expectations of success, perceived control, and personal efficacy.

The current work on these constructs assumes that individual differences in these constructs are due mostly to students' interpretations of their own achievement experiences. While objective reality certainly does play a critical role, theorists argue that reality's impact is mediated by causal attributions and by other interpretative processes. They also argue that these interpretative processes are subject to socialization influences. Teachers and parents provide children with interpretations of their achievement experiences. For instance, by responding differently to the failures of high expectancy and low expectancy children, teachers provide the children with (or reinforce) different interpretations of the event. "Golem" effects are created, it is argued, when the teacher leads low expectancy children to conclude that (or reinforces their conclusion that) their failures are due to lack of ability and that there is little that can be done to turn future failures into future successes. "Golem" effects can be avoided if the teacher provides these children with a different interpretation; namely, that their failures are due to insufficient skill and that they can achieve success in the future. Basic to this perspective is the assumption that individual differences on these cognitive-motivational variables do, in fact, influence achievement behaviors. Evidence regarding this assumption is discussed below.

Self-Concept of Ability/Expectations for Future Success

Most directly related to teacher expectancy effects are student expectancy effects. Student expectations have been studied under two labels - self-concept of ability and expectations for future success. Since we have found that these two constructs are part of the same factor (Eccles [Parsons], Adler, Futterman, Goff, Kaczala, Meece, & Midgley, in press), we will discuss them together.

Many psychologists have hypothesized a relationship of self-concept of ability and future expectations for success to achievement (e.g., Atkinson, 1964; Brookover & Erickson, 1975; Covington & Beery, 1976; Eccles (Parsons) et al., in press; Lewin, 1938; Nicholls, 1976; Purkey, 1970; Weiner et al., 1971). A meta-analysis has confirmed this relationship (Hansford & Hattie, 1982); the average correlation between indices of these two constructs is approximately .24. But the strength of the relationship varies across ethnic groups (highest for whites), age of child (highest for secondary school students), socioeconomic status (highest for middle and high SES children), and the ability level of the child (highest for middle and high ability children). The relationship also varies with the measures used. The relationship goes up as the measures get more specific. For example, the highest correlations exist between expectations for success in a particular subject and both grade point average and the teacher's ratings of work/study habits for that particular subject. Conversely, the relationship is

quite low between global measures of self-esteem and global IQ scores.

The link between self-concept of ability and achievement is of interest primarily because motivational psychologists believe that variations in self-concept of ability can cause variations in achievement behavior. They argue that self-concept of ability influences students' motivation to study and work hard, especially in the face of difficulty. Motivation to study, in turn, influences level of achievement. Because students with positive or high self-concepts and high expectations for success have faith in their ability to master academic tasks, they respond to difficulty or failure with increased persistence. In contrast, because students with low self-concepts and low expectations for success have little faith in their ability to master academic tasks, they give up when confronted with difficult tasks. By increasing their efforts in the face of difficulty, high self-concept children increase the probability of success at the task. Their success, in turn, confirms their high self-concept, creating a success-prone expectancy cycle. In contrast, by giving up in the same situation, low self-concept children condemn themselves to failure. Their failures, in turn, confirm their low self-concept, creating a failure-prone cycle.

Research assessing this series of predictions has yielded somewhat mixed results. The impact of achievement on self-concept and expectations for success has been

established. High achievement (success) leads to high self-concept and high expectancies; low achievement (failure) leads to low self-concept and low expectancies (e.g., Calsyn & Kenny, 1977; Crandall, 1969; Eccles, Adler & Meece, in press; Parsons & Ruble, 1977). In contrast, the impact of self-concept on subsequent achievement is less clear. On the one hand, laboratory studies have fairly consistently demonstrated that students with higher expectancies and higher estimates of their ability persist longer, do better on difficult tasks, and have higher subsequent expectations than students with low initial expectations and low estimates of their ability (Butkowsky & Willows, 1980; Crandall, 1969; Eccles, Adler, & Meece, in press). These beneficial effects of high expectations are particularly evident on difficult tasks. On the other hand, field studies using both cross-lagged correlational procedures and structural modelling procedures have yielded a very mixed pattern of results.

Of the most comprehensive, recently published studies we could locate, two found no evidence of a causal impact of self-concept of ability on subsequent achievement (Calsyn & Kenny, 1977; Harter & Connell, in press). The results of these two studies, one using cross-lagged panel correlations and one using structural modelling, suggest that the relationship between achievement and self-concept is totally accounted for by the causal impact of achievement on self-concept. A recent dissertation provides additional support

for this conclusion. Using panel data from a longitudinal study of attitudes and achievement, Newman (1982) evaluated the causal relationship between self-concept of math ability and math performance over a three year (second to fifth grade) and five year (fifth to tenth grade) time span. His results, based on structural modelling procedures, indicated that variations in level of achievement caused subsequent changes in self-concept during both time periods.

Variations in self-concept of math ability had no effect on subsequent math achievement across either time period.

In contrast, the other two studies found support for the causal impact of self-concept on subsequent achievement. Using structural modelling procedures, Shavelson and Bolus (1982) found clear evidence of the self-concept to achievement link for three different subject areas (math, English, and science). Using path analytic procedures, we have also found evidence of a small but significant effect of self-concept of math ability on subsequent math grades (Eccles [Parsons] et al., in press).

Intervention studies have yielded equally conflicting results. Even when an significant effect emerges, it is typically quite small and difficult to interpret because the interventions are so general. In reviewing these studies, Scheiner and Kraut (1979) concluded that there was no support for the proposition that changes in self-concept cause changes in achievement. They argued that the "self-concept change evident in these intervention studies is

likely to be an outcome of increased achievements with accompanying social approval, rather than an intervening variable necessary to occur" (p. 144).

What can we conclude? The laboratory studies provide sufficiently consistent and sufficiently strong evidence to conclude: (1) that low self-concept can lead to the failure-prone expectancy pattern predicted by motivational psychologists, and (2) that variations in self-concept have their impact primarily on students' reactions to failure. Variations in self-concept and expectations have less influence on students' responses to success. The field studies suggest that self-concept of ability is not, on the average, a very powerful determinant of achievement, in and of itself. In part, these weak relationships may reflect the fact that the relationships between self-concept of ability and performance is cyclic by its very nature. As a consequence the question of which causes which may be a pseudo-issue.

In part, these weak relationships may also reflect the fact that most measures of self-concept of ability reflect an assessment of past or current ability level and not of potential future ability level. Unfortunately, most people in this culture think of lack of ability as a stable construct - "if I'm not able today, I won't be able tomorrow". In addition, future expectations are very closely related to assessments of one's current ability level (Eccles, [Parsons] et al., in press). This need not,

however, be the case. We could think of lack of ability as an unstable condition - a condition modifiable with appropriate experience. We could, in other words, dissociate our expectations for future success from our assessments of our current level of performance. There is, in fact, some data suggesting that is exactly what young children do (see Eccles, Midgley, & Adler, in press). If students conceive of lack of ability as a modifiable characteristic, then their motivation to continue trying despite difficulty might be higher.

Of course we are not arguing that students develop unrealistic expectations for task mastery. Knowing when to give up is a very important skill. Some tasks will clearly be beyond the ability level of some students and students should be able to assess this reality with accuracy. What we are arguing is that some students may assume too soon that their low performance reflects lack of ability and that their difficulties reflect a stable, unmodifiable state. They may be attributing their difficulty with school material to lack of sufficient ability when, in fact, more accurate attributions might be lack of sufficient skills and/or knowledge, inadequate teaching, or insufficient effort. Furthermore, some teachers, the teachers most likely to produce the "Golem" effect, may be reinforcing these inferences. In our opinion this mistaken attributional bias on the part of both the student and the teacher contributes to underachievement and to the failure

of some students to progress at a rate commensurate with their "ability" level.

This line of reasoning suggests four conclusions. (1) Beliefs regarding the degree to which we can control future ability/skill and performance levels will have a stronger causal influence on subsequent achievement behaviors than beliefs regarding one's current ability level. The relationship of perceived control to achievement is discussed in the next section. (2) Teachers who believe in "late bloomers" and who see lack of ability/skill as an unstable trait subject to modification either through continued development or through active intervention will be less likely to produce "Golem" teacher expectancy effects than teachers who both see lack of ability as a stable state and attribute poor academic performance to lack of ability. In support of this prediction, Swann and Snyder (1980) demonstrated that subjects who were trained to believe in late bloomers were less likely to produce the "Golem" teacher expectancy effect than subjects allowed to believe that ability is a stable characteristic. (3) The variations across studies on the effects of self-concept of ability and expectancies on achievement may reflect the degree to which the measure used elicited a past orientation versus a future orientation. (4) Interventions should be designed which will help children to dissociate their assessments of their current level of performance from their future expectations or which will allow the children to use their assessments of

their current level of performance in selecting academic tasks of the appropriate level of difficulty to insure success.

Perceived Control

The individual's perception of control over achievement outcomes has been shown to have an impact on self-concept and achievement motivation (see Stipek & Weisz, 1981). Perception of personal or internal control of outcomes, especially successful outcomes, has a positive influence (Bandura, 1977, 1979; Harter, 1978; Weiner et al., 1971). Bandura has labelled this perception of control personal efficacy. Perceptions that outcomes are not under personal control creates difficulties (Abrahamson, Seligman & Teasdale, 1978; Dweck, 1975; Dweck & Goetz, 1978). This perception of lack of control has been termed learned helplessness. We will begin our discussion of the influence of control with the construct of learned helplessness.

Learned Helplessness. Seligman (1975) coined the term learned helplessness to explain the reaction of laboratory animals to a particular conditioning program. The animals were first administered electric shocks in a situation where escape was not allowed. conditions were changed so that escape was possible, the animals made no attempt to escape; the animals were said to be exhibiting learned helplessness. Abrahamson et al. (1978) reformulated the construct to make it more applicable to humans. They defined learned

helplessness as the state in which a person believes s/he can not control the events in his/her life. They argued that perceptions of lack of control result in giving up and depression.

Attributions for success and failure are given a central role in Abrahamson et al.'s formulation of helplessness. In the achievement attribution model (Weiner, 1979; Weiner et al., 1971), certain kinds of attributions are associated with positive achievement motivation, whereas others are linked with negative achievement motivation. For instance, attributing success to ability and failure to lack of effort is associated with positive motivation, whereas attributing failure to lack of ability and success to external causes is associated with negative achievement motivation (see Weiner, 1979; Wigfield & Eccles-Parsons, 1982, for a more complete description of this model). Abrahamson et al. (1978) discussed how different attributions for failure relate to learned helplessness. Attributing failure to an internal factor, especially lack of ability, leads to loss of self-esteem. Attributing failure to a stable factor (again ability is the best example) leads to the conclusion that the problem will be long lasting. Thus, helplessness, according to Abrahamson et al. (1978), results from attributions of failure to lack of ability.

Dweck and her colleagues have used the learned helplessness model to explain children's response to failure

experiences in school. They suggested that children who give up when faced with difficult tasks may do so because they attribute their difficulty to lack of ability - a characteristic over which they have no control. In contrast, they suggested that children who persist do so because they attribute their difficulties to a more controllable cause, in particular, lack of sufficient effort. To test these hypotheses, Dweck and Reppucci (1973) compared the attributional patterns of two groups of upper elementary school children: one group had given up on a task after a series of failures; the other group had increased their efforts following the failures. The children who persisted emphasized motivational factors like lack of effort in explaining their failures. In contrast, the children who gave up emphasized lack of ability in explaining their failures.

In a subsequent study, Diener and Dweck (1978) asked children to verbalize their thoughts as they were doing difficult problems. Learned helpless children began attributing their performance to lack of ability as soon as they ran into difficulty. In contrast, other children (called "mastery oriented" by Diener and Dweck) made few attributions, focusing instead on the strategies they were going to try next. Thus, there are differences not only in the kinds but the extent to which learned helpless and mastery oriented children make attributions. Mastery oriented children respond to difficulty with a task analytic

strategy - What should they do next in order to change their outcome? In contrast, learned helpless children respond to difficulty with decreased persistence and attributions of low ability. Apparently, they do not think they can change their outcome by changing their strategy; they appear to attribute their difficulties to an unmodifiable deficit instead.

When does learned helplessness in response to failure develop? Rholes, Blackwell, Jordan and Walters (1980) found that first and third grade children did not show the helpless pattern, but by fifth grade some children did. Other studies assessing expectations and response to failure confirm this developmental pattern. Behaviors characteristic of learned helplessness are rare among young children, emerging with any frequency only after the third or fourth grade (see Eccles, Midgley, & Adler, in press). Apparently, early failure experiences do not undermine children's motivation. Instead, it is only as failures mount and as the child incorporates a stable view of failure that some children develop the helpless pattern. These two processes appear to converge in the middle elementary school grades. Interventions may be most appropriate at this point in a child's school career. Attributional retraining programs with fourth and fifth graders have been particularly successful (Dweck, 1975).

But how does the learned helpless pattern develop? Dweck and Goetz (1978) suggested that the kinds of feedback

children receive from different evaluative agents (parents, peers, teachers) influence whether they will develop learned helplessness or not. Dweck, Davidson, Nelson and Enna (1978) conducted an observational study in order to analyze the kinds of feedback children receive from teachers in elementary school. Since they were particularly concerned with the socialization of sex differences in learned helplessness, they focused on the differential treatment of boys and girls. They found, like others (see Brophy & Good, 1974 and Good, this volume), that boys receive more negative feedback than girls. In addition, however, they found that the patterns associated with both negative and positive feedback were different for boys and girls. The negative feedback directed toward boys focused on conduct rather than the intellectual quality of their work. In contrast, since the girls received so little criticism for conduct, most of criticism directed toward girls focused on the intellectual quality of their work. When the teachers in this study criticized children for the quality of their work (which was very rare), they were eight times more likely to attribute the boys' problems to lack of effort than they were to make such attributions for the girls' academic problems. Typically, they made no overt attribution for the girls' performance. It should be noted, however, that overt teacher attributions were rare for both boys and girls.

Dweck et al., (1978) suggested that these differences in teacher feedback patterns and in the teacher's

attributions might predispose boys and girls to develop different attributional patterns for themselves. The "boy" pattern of diffuse criticism, they argued, should lead boys to ignore negative teacher feedback. If boys receive more criticism than girls and if their criticism usually focuses on their conduct rather than their competence, then, boys should come to view the teacher's negative feedback as reflecting the teacher's attitude toward them and not their academic potential. In addition, if teachers emphasize lack of effort when criticizing the boys for poor academic performance, then, Dweck et al. suggested, boys should learn to blame their failures on lack of effort. In contrast, if the teachers praise girls more than boys, then girls should be less likely to attribute the teacher's criticism, when it occurs, to teacher bias. Furthermore, if teachers, in general, think that girls are hard workers, the girls should be less likely to learn to attribute their failures to lack of effort. Thus, girls, Dweck et al. argued, should be more likely than boys to attribute their failures to lack of ability. In support of these predictions, Dweck and Reppucci (1973) found that girls were slightly more likely to attribute their failures to lack of ability than boys. But, the boys and girls in this same study, were equally likely to attribute their failures to lack of effort. As a further test of these predictions, Dweck et al. (1978) manipulated teacher feedback patterns in a laboratory simulation. One group of children were given

the boy-type pattern; the other group of children were given the girl-type pattern. As predicted, the children who had received the boy-type pattern had higher expectations for success and attributed their failures to external factors and lack of effort to a greater extent than did the children who had received the girl-type pattern. These data suggest that the pattern of teacher feedback can influence children's attributional patterns and expectations for success. They also suggest that these effects are quite subtle, depending on the context in which the feedback occurs.

Several recent studies, however, have yielded results that raise serious questions concerning both the results and interpretations made by Dweck et al. (1978). In particular, these studies raise questions regarding: (1) the sex differences in learned helplessness, (2) the sex difference in the patterns of teacher feedback, and (3) the predicted relationships between teacher feedback patterns and students' expectations (Blumenfeld, Hamilton, Bossert, Wessels, & Meece, 1982; Cooper, Burger, & Good, 1981; Eccles, Moses, & Yulish-Muzynski, 1982; Eccles et al., in press; Frieze et al., 1982; Good, Cooper, & Blakey, 1980; Parsons, Meece, Adler, & Kaczala, 1982). For example, we have not found that girls are more prone to learned helplessness behaviors than boys. A similar conclusion has been reached by both Cooper et al. (1981) and Frieze et al. (1982).

In addition, observation studies have not replicated several aspects of the findings reported by Dweck et al. (1978). For example, in Parsons, Kaczala et al. (1982), teachers gave more work-related criticism to boys rather than to girls. There were no differences in the amount of criticism teachers gave to boys and girls for the non-intellectual aspects of their work such as neatness, and the proportion of criticism given to work versus conduct was the same for boys and girls. The patterns of teacher praise were also similar for boys and girls. Finally, teachers' attributions for students' behavior and performance were made so infrequently that assessing their impact on student motivation was impossible. In addition, there were no sex differences in the patterns of these attributions. Failures were almost universally attributed to lack of effort. Furthermore, in a direct test of the hypothesis that teacher feedback patterns influence children's attitudes toward achievement, Parsons, Kaczala et al., found only very weak relationships in general between teacher feedback patterns and student attitudes toward math and found no support for the specific predictions made by Dweck et al. (1978). Furthermore, the effects of teacher expectations on student motivation had completely disappeared one year later when the children had moved on to a new teacher. Hence Dweck's notion that teacher feedback is a major determinant of student attributional patterns was not supported.

In a similar study, Blumenfeld et al. (1982) observed teacher-student interactions in first and fifth grade classrooms. They coded the kinds of attributions teachers give concerning student performance. As in the Parsons, Kaczala et al. study, teachers did not make frequent attributions about their students' performance. Of the attributions made for students' academic performance, more were positive than negative. Teachers gave very few lack of ability attributions for poor performance; lack of effort was used most frequently for both boys and girls. Girls received more work-related attributions than did boys. Contrary to the results reported by Dweck et al. (1978), teachers attributed girls' failures more often to lack of effort than they did boys' failures, and they attributed boys' failures to lack of ability more often than they did the girls'. It should be noted, however, that teacher attributions were relatively infrequent, occurring in only 13% (with girls) and 8% (with boys) of the interactions.

It is clear then that other observational studies have produced results quite different from those reported in Dweck et al. (1978). Further work is needed to determine why such differences have occurred. But, at the every least, the discrepancies across studies indicate that teacher feedback varies greatly across classrooms, and that the kinds of attributions teachers give to boys and girls vary in type and frequency. It also does not appear that learned helplessness is a general phenomenon that is more

common in girls than in boys. The Parsons, Kaczala et al.'s finding that teacher feedback patterns and teacher's overt causal attributions for the children's performance are only weak predictors of student's attitudes toward achievement further runs counter to the notion that teacher feedback is a major determinant of children's attributions and expectations for success. This is not to say that teachers don't, or can't, affect children's motivation. We will be discussing some specific ways that teachers do affect children's motivation below. But we now believe that the typical experiences most children have with affective feedback and teacher attributions are not powerful determinants of their classroom motivation. On the average, these experiences are not that frequent and are probably not very salient in the stream of classroom interaction. When these experiences become salient, either because the teacher is making a special effort to make them salient or because they occur in a particularly affect-laden moment, then, we expect, they will have a strong impact on the students' motivation. But such experiences are rare and are difficult to uncover in normative studies of classroom life.

While teachers' overt attributions about their students' performance may not play a major role in the socialization of learned helplessness, the way they control students' success and failure experiences may. For instance, Cooper's (1977, 1979) work on teacher-student interactions suggests that teachers attempt to minimize

public interactions with low expectancy students by praising them less and criticizing them more. Teachers encourage high expectancy students to interact with them publicly. Cooper argues that these teacher feedback patterns will lead low expectancy students to interact less with teachers, and to perceive that their efforts do not result in positive outcomes. These patterns can also result in the low expectancy children getting less instruction time and less engaged work time. While teacher attributions, especially covert attributions, may play some role in shaping the teacher's behavior, Cooper's work suggests that it is the ways in which the teachers control opportunities for interaction which is the more important influence on the children's motivation and performance.

Though there is controversy over the origins of learned helplessness, most researchers agree that helplessness is a problem for some children in school. What can be done about this problem? Based on the relationship of attributions to learned helplessness, Dweck (1975) conducted an attribution re-training study with upper elementary school students to try to change the learned helpless children's attributions for failure. In one condition, the children received success experiences. In the attribution re-training condition, the children experienced success on most problems, and failure on a few. When failure occurred, the experimenter attributed it to lack of effort ("you can do better, try harder"). Following training, only the

attribution re-training groups improved. They no longer gave up when they encountered failure, and they had learned to attribute failure to lack of effort rather than to lack of ability. These results show how children's attributions can affect performance, and indicate that one way to improve performance is to change children's attributions.

Other researchers have extended this work. Both Andrews and Debus (1978) and Fowler and Peterson (1981) investigated how various combinations of success and failure experiences, and attribution re-training experiences affect children's responses to failure. Dweck's (1975) study confounded the effects of success and failure with attribution re-training, since she did not include a group that received success and failure experiences without attribution re-training; these other studies corrected this confound. Results of both studies showed that the combination of attribution re-training and success-failure experiences was the most effective way of improving children's persistence, but it was not significantly better than the success-failure condition in which failure was interspersed with success. These results qualify Dweck's findings that attribution re-training is the way to overcome helplessness. What seems to be critical is that students learn that increased effort can lead to success and that failures are under one's control.

One other problem with attribution retraining should be mentioned here. Covington and Beery (1976) have argued that

people maintain feelings of self-worth by maintaining high self-concepts of ability. When people experience failure, one way to maintain a high self-concept of ability is to attribute failure to lack of effort. In support of this view, Covington and Omelich (1979a,b) have shown that attributing failure to lack of effort is the preferred attribution among college students. This is a reasonable strategy as long as individuals believe they are not trying hard. Attribution re-training helps individuals overcome failure by getting them to try harder; feelings of self-worth can be maintained if success is attained. However, if individuals try harder and still fail, the only conclusion they can draw is that they lack ability. Covington and Beery argued that many individuals do not try hard in potential failure situations in order to avoid this very thing. Attributing failure to lack of effort is all right, if additional effort allows one to succeed. The implication is that individuals may need more than attribution re-training to do well; they may also need skill training. Without this skill training, increased efforts will not lead to an enhanced sense of competence because increased efforts will not lead to the increased incidence of success. This brings us to our next motivational constructs -- personal efficacy and effectance motivation.

Personal Efficacy. According to Bandura (1977, 1979), personal efficacy is the perception of how well one can do on various tasks. It is the belief that one can succeed on

a task. Efficacy perceptions have been shown to influence various achievement behaviors including the selection of easy or difficult tasks, and persistence on an achievement task. According to Bandura, individuals generally attempt those things they think they can do. He also argued that a sense of personal efficacy is created by observing one's actions affect the environment. In the achievement domain, this means that personal efficacy is enhanced when one's efforts produce successful results. As is true of all of these self-concept linked beliefs, self-efficacy beliefs can be enhanced or undermined by the interpretations and experiences provided by both parents and teachers.

While Bandura's analysis seems quite similar to Weiner et al.'s attribution analysis, with efficacy beliefs corresponding to attributing success to ability, Bandura maintains the two views are not the same. Both theories stress the importance of perceived control. But, because efficacy perceptions are concerned with the question "can I do this task?", Bandura stresses the importance of skill training rather than attribution retraining. Indeed, Schunk (1981) tested the effectiveness of attribution re-training and efficacy training in improving slow-learning children's math performance. Children received one of two efficacy training procedures, either a modelling procedure or a practice procedure. Half the children in each training group also received attribution re-training like that used by Dweck (1975). While both training conditions improved

children's persistence, accuracy, and perceived efficacy, there were no differences between the children who received attribution re-training and those who did not. Apparently, the critical aspect of training is that the children learn that increased efforts using appropriate skills can lead to increased success.

Effectance Motivation. Harter's (1978) recent work on effectance motivation theory points out yet another construct related to perceived control. As originally formulated by White, effectance motivation is the motive to affect the one's environment. Building on White's (1959) model, Harter has spent the last several years elaborating effectance motivation theory. Her work has focused on the following issues: (1) distinguishing the components of effectance motivation; (2) looking at the impact of both success and failure experiences on effectance motivation; (3) examining the role of socialization agents in shaping effectance motivation; and (4) assessing developmental changes in effectance motivation. A major premise of Harter's view is that perceptions of internal control are a critical part of positive effectance motivation, and perceptions that events are externally controlled are an aspect of weak effectance motivation.

Harter's (1981b, 1982) recent empirical work has addressed primarily the first of these issues (i.e. the components of effectance motivation). She has developed a scale to assess children's perceptions of their competence

in different skill domains, focusing on cognitive, social and physical skills. Initial results of her investigations show that children (third through ninth graders) distinguish among these domains.

Harter and Connell (in press) have also assessed the relationships between actual and perceived competence, perceived control over achievement outcomes (either internal, external, or unknown), and motivational orientation (internal or external) of elementary and junior high school students. They used structural modelling procedures to derive best-fitting models for the relationships obtained among these variables and between these variables and school achievement. (It should be noted that the statistics necessary to judge goodness of fit of the different models were not presented in the materials we obtained; hence it was impossible for us to determine how well the best fitting model actually fit the data.) Four models were assessed, each specifying different predictive links among the variables (e.g., achievement predicts perceived control versus perceived control predicts achievement, etc.). Though there were some differences between elementary and junior high school students, for both groups the model that best fit the data emphasized the perceived control variable as the primary predictor of the other variables. More particularly, the known/unknown distinction emerged as most critical; children who reported that they knew why academic outcomes occurred and, in fact,

gave a reason which was codable as either external or internal were higher achievers than children who could not provide a codable reason for their academic outcomes. This finding supports the view that perceived control, in general, is an important determinant of achievement; however, the known/unknown distinction has not appeared in previous control theories, and will have to be assessed further. It collapses across the internal and external dimensions typically kept separate in attribution and efficacy models; instead, it compares children who can provide reasons for academic outcomes with children who can not provide such reasons. Thus, its exact theoretical status is not yet clear. In addition, since the study was cross sectional in design rather than longitudinal the causal links are still unclear.

Thus, both Harter and Bandura, in their different but related perspectives, pay particular attention to perceived control over events, as does Dweck in her discussion of learned helplessness and mastery orientation. As summarized here, perceptions that events are not personally controlled is a bad situation, and perceived personal control over events is a better one. Recently, some social psychologists (e.g., Janof-Bulman & Brickman, 1981; Rothbaum, Weisz, & Snyder, 1982) have argued that the importance of control perceptions has been overemphasized. While this may be true for adults in some situations, we believe that in the school situation, children have so little control over most events

that it is quite important that they perceive some control over their achievement outcomes. This is particularly true in school settings because the children can not leave the situation and because they typically have so little control over the tasks assigned to them. Without such perceptions, the school situation will appear to be totally driven by external or uncontrollable forces, which, as we have shown, will have a negative influence on the children's motivation to achieve in the school setting.

Summary of Cognitive-Motivational Variables

In this section we have reviewed the impact on student achievement of a cluster of motivational variables that are related to the students' assessment of their abilities and to their interpretation of their academic successes and failures. These variables share a large cognitive component - the interpretation of events- and, as such, are related most directly to the question "can I succeed at or master this task?" While not all children ask themselves this question, many children do act as though they do, especially when they are confronted with failure or with a very difficult task. Their answer to the question does affect their response to the difficulty. We want to stress that it is the interpretation of failure that seems most critical. If failure is interpreted as stable and due to enduring characteristics of the individual such as lack of ability, then the student is likely to give up. If, in contrast, the failure is seen as surmountable and due to lack of effort,

or lack of skill, or lack of specific knowledge, then the student is less likely to give up, more likely to persist, and, if necessary, to seek the help necessary to acquire the requisite skills.

Interestingly, the teacher expectancy literature also suggests that it is perceived control over future outcomes, or personal efficacy, in the face of difficulty that may be the critical mediator of teacher expectancy effects when they occur. As Brophy (chapter 9) concludes, the major teacher expectancy effects are "Golem" effects, rather than "Galatea" effects. Even these effects are only produced by some teachers. Evidence from several different sources suggest that one set of characteristics that distinguish between the teachers who produce the "Golem" effects and those who not is the teacher's efficacy-related beliefs. These beliefs include (1) confidence in their own ability to help the low expectancy students to master the material, (2) confidence in the low expectancies students' ability to master the material, and (3) conviction that the material can and should be mastered by everyone (Ashton, Webb, & Doda, 1982; Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Clauset & Gaynor, 1982; Weiner, 1979). In other words, teachers who get low expectancy children to progress in their learning perceive themselves to have control over the students' progress, perceive the students as capable of learning the material, and consider it to be part of their responsibility to ensure that the low

expectancy children do in fact learn. What seems to be critical is that teachers not interpret the students' failures as stable and predictive of continued failure and incompetence. Instead, it is important that they believe they can intervene to stop the failure cycle.

Subjective Task Value:

Do I Want to Succeed?

The motivational constructs discussed up to this point have all been related to the basic questions of "can I do the work?", and "can I succeed on this task if I want to?". Expectancy-value models of motivation stress the importance of another cluster of constructs in mediating achievement -- namely, a cluster linked to the individual's assessment of the value or importance of the activity. This cluster is linked to the question "do I want to do the work?" and "do I want to succeed?". Atkinson (1964) included one aspect of this construct in his original model of achievement behavior. He called this variable incentive value and defined it in terms of the reward value for succeeding. He assumed that the reward value of succeeding was directly related to the probability of success; success at harder tasks was assumed to have greater value than success at easier tasks. Since 1964, it has become clear that Atkinson's conceptualization of subjective task value does not capture the richness of the construct. Several theorists have elaborated broader models of task value

(e.g., Crandall, 1969; Parsons & Goff; 1980; Eccles et al., in press; Raynor, 1974; Spenner & Featherman, 1978). Our own model proposes that the value or importance of engaging in a specific achievement task is determined both by the characteristics of the task and by the needs, goals, and values of the person. The degree to which the task is able to fulfill needs, to facilitate reaching goals, or to affirm personal values determines the value a person attaches to engaging in that task. Activities that fulfill these needs will be seen as important and the individual will be motivated to work at mastering them. Activities that do not fulfill these needs will be seen as unimportant and the individual will not be motivated to work at them. Finally, activities that threaten the individual's self-concept will take on a negative value and the individual will be motivated to avoid them.

In our model, we assume that subjective task value (the value an individual places on the task) is comprised of three major components: attainment value, intrinsic value or interest, and utility value. Attainment value is the importance of doing well on a task. This component incorporates a variety of dimensions, including perceptions of the task's ability to affirm or disaffirm salient and valued characteristics of the self (e.g., masculinity, femininity, competence), to provide a challenge, and to offer either a forum for fulfilling achievement, power, and social needs, or a forum for failure and shame. We assume

that the perceived qualities of the task interact with an individual's needs and self-perceptions in determining a task's attainment value. Consider, for example, a child who thinks that doing well is one characteristic of smart people and wants to be a smart person. This child will place great value on doing well in school since doing well in school will affirm a critical component of her self-concept. Consider, in contrast, the child who doesn't think doing well in school is particularly important. This child will be less motivated to work hard in order to succeed at school, especially if she isn't sure she can succeed anyway.

This component of subjective task value may be especially critical to our understanding of differences in motivation that are related to socioeconomic class, gender, and ethnic group membership. As several reviewers have concluded (see for example Wigfield & Asher, in press), middle class children, especially girls, are more likely to believe that doing well in school is important. This makes the teacher's job much easier. In contrast, lower SES children and children from some ethnic groups are less likely to endorse the value of school performance. Consequently, teachers will need to do more to increase the motivation of these children, especially if they begin to associate school with failure and negative affective experiences. Providing these children with additional incentives to master material has been found to increase

both their motivation and their achievement level (see Thomas, 1980).

Intrinsic or interest value, the second component of task value, is the inherent enjoyment one gets from engaging in an activity. Some people just enjoy doing school work. They gain great satisfaction from completing assignments and doing well. For example, they may find mathematics aesthetically pleasing, or science exciting, or reading pleasant and calming. For such people the value of school and related activities should be very high; they should be highly motivated to do their school work.

Psychologists concerned with intrinsically motivated learning (e.g., Covington & Beery, 1976; Deci, 1975; Harter, 1981a; Kruglanski, 1975; Lepper & Green, 1978; Maehr, in press; Nicholls, 1979; White, 1959) have been most interested in this component of subjective task value. They argue that all children are intrinsically motivated to learn and to master their environment but that schools, through evaluative procedures, teacher-controlled learning, and lock-step pacing of tasks, undercut this motivation in most children, but particularly in low ability children. Harter (1981b) has confirmed this developmental prediction. Older children are more likely to cite extrinsic reasons for doing school work than are younger children. This developmental change in intrinsic motivation suggests two conclusions. (1) Schools ought to consider ways to maintain intrinsic motivation. (2) Teachers should pay more attention to the

other influences on subjective task value as children grow older. For example, utility value may become an especially important component of subjective task value as students move into high school.

Finally, apart from any feelings of interest or enjoyment, tasks also have utility value and are undertaken as a means of reaching a variety of long and short range goals. For example, a high school student may want to be a veterinarian and may need to take a particular course (e.g., calculus or advanced algebra) in order to gain entry into the appropriate college program. Consequently, she may take advanced mathematics classes, even though she has little or no interest in math itself. In this case, the instrumentality of mathematics in helping her to achieve her career goal outweigh her otherwise negative or neutral attitude toward the subject matter itself. The utility value of math in this case is high because of its long range usefulness.

As suggested above, utility value should increase in importance as students enter junior and senior high school. It is not until the adolescent years that students develop stable long range goals and start to think about planning for these future goals. It is also the time in their educational careers when they start getting some options regarding what they take, and when absenteeism and truancy become a major problem. Given these age-related changes in the nature of students' school experiences, it is

undoubtedly very important that schools and teachers begin to provide students with accurate information regarding the value of both staying in school and in taking college track courses, lest teacher expectancy effects and underachievement patterns manifest themselves in dropout rates and inadequate preparation for adult employment. While these efforts may not be universally successful even in high school, they stand a better chance of being effective motivators among older students than among younger students who do not yet have a future orientation. Unfortunately, in over 300 hours of observations in junior high school math classes, we rarely saw a teacher use this strategy.

In sum, we are proposing that task value is a function of both perceived qualities of the task and the individual's needs, goals, and self-perceptions. Individual differences on these factors are created by the experiences individuals have had with similar tasks in the past, by social stereotypes (e.g., girls can't do math; poor kids are dumb; blacks are better at sports than math), by the kinds of information provided by parents, teachers, and/or peers about the importance of, or the difficulty involved in, doing well. We have been most interested in 3 particular influences on perceived task value: (a) personal needs, values, and self-schemata, (b) perceived cost of success and failure, and (c) affective experiences.

Personal Needs, Values and Self-Schemata

A sizable portion of the literature related to the processes of socialization suggests that a variety of needs and values influence achievement behavior (Mortimer & Simmons, 1978; Parsons & Goff, 1980; Spenner & Featherman, 1978; Stein & Bailey, 1973; Veroff, 1969, 1977). For example, Parsons and Goff (1980) have argued that individuals develop an image of who and what they are as they grow up. This image is made up of many component parts including (a) conceptions of one's personality, (b) long range goals and plans related to anticipated adult roles, (c) schema regarding the proper roles of mothers and fathers, (d) instrumental and terminal values (Rokeach, 1973), (e) motivational sets, and (f) social scripts regarding proper behavior in a variety of situations.

Some parts of an individual's image are very central or critical to his/her self-definition. According to Markus (1980) these are the parts of one's self image that exert the most influence on behavior. For example, if being a good student is a central part of an individual's self-image, then it is to be expected that this individual will work at being a good student and at projecting an image to others of being a good student. The degree of influence wielded by the values and needs is determined by their centrality to an individual's self-definition. Specifically, personal needs and values operate in ways which both reduce the probability of engaging in those roles

or activities that are perceived as being inconsistent with one's central values and increase the probability of engaging in roles or activities perceived as being consistent with one's definition of self.

The impact of sex role on achievement behavior is a good example of this process. Males and females excel and have difficulty in different achievement domains. Males do better in math and science courses; females do better in English and foreign language courses. Why is this true? While a full discussion is beyond the scope of this paper, a few comments are in order. One explanation for the difference relies on the mediating role of the motivation variables linked to expectations for success discussed earlier. The other explanation focuses more on subjective task value. We have argued elsewhere that sex roles influence behavior primarily through the mediating role of incentive value. In particular, we have argued that sex labeling of tasks influence the value children attach to these tasks, and that the value, in turn, influences achievement behaviors such as persistence in the face of difficulty and task choice. Supporting this argument, both boys and girls attach higher attainment value to sex appropriate achievement activities (Stein & Smithells, 1969). Additionally, subjective value of math has emerged in several studies as the most important attitudinal influence on students' enrollment decisions and math-related career choice (Eccles [Parsons], in press). Finally, in a

path analytic study of students' motivation to study math and English, we have found subjective task value (rather than self-concept of ability) to be the attitudinal variable that accounts for the sex differences in students' motivation to continue studying math (Eccles, Adler, & Meece, 1982).

Several of the other chapters in this volume discuss the impact of teacher expectancies on sex differences in achievement. In these chapters, it is argued that sex-related stereotypes of achievement abilities influence teacher expectations, which, in turn, influence teachers' behavior. The boys and girls incorporate the teachers' expectations into their own expectations for success and, as a consequence, perform differently. In other words, girls perform more poorly in math than boys because they have acquired lower expectations for success from their teachers. While it is true that some teachers treat boys and girls differently, especially in math classes, and that high school teachers expect boys to be better at math than girls, it is also true that high school teachers think math is more useful for boys than for girls and that boys enjoy math more than girls (see Eccles [Parsons], in press). Therefore it is possible that teachers may be influencing girls' and boys' achievement patterns by the messages they convey about the importance and value of math and by the affective support they give to high ability girls rather than by the

messages they convey regarding expectations for success. Virtually no work has been done to assess this hypothesis.

Perceived Cost of Success and Failure

The value of a task to an individual is also affected by a set of variables which can best be conceptualized as the cost of success or failure. Borrowing from exchange theorists (e.g., Thibaut & Kelley, 1959), we conceptualize the influence of cost on the value of an activity in terms of a cost/benefit ratio. Assuming that individuals have a conception of both the cost and benefits of engaging in a variety of activities, then the value of each activity ought to be inversely related to this cost/benefit ratio. Variables influencing the benefit of an activity were discussed in previous sections. Variables influencing the cost of an activity include the amount of effort needed to succeed, the loss of time which could be used to engage in other valued activities, and the psychological meaning of failure. Each of these is discussed briefly below.

Effort. Kukla (1972, 1978) suggested that the amount of effort assumed to be needed for success may be a key determinant of achievement behavior. He argued that individuals calculate the minimal amount of effort needed to succeed on a task (i.e., to do as well as one considers essential) based on their estimates of their own ability and the difficulty of the task. Each individual will then exert that minimal effort. If we assume that individuals have a

sense of how much effort they think is worthwhile for various activities, then we can extend Kukla's argument to the following prediction: as the anticipated amount of effort increases in relation to the amount of effort considered worthwhile, then the value of the task to the individual should decrease. That is, as the cost/benefit ratio in terms of amount of effort needed to do well increases, the value of the task to the individual should decrease.

Loss of valued alternative. Closely related conceptually to the cost of effort involved in doing well is the cost of a task in terms of the time lost from other valued activities. Students have limited time and energy. If they spend one hour on Task A, they have one hour less available for Task B. They must make choices between various activities. For example, imagine a girl who likes math, knows it's hard, but also wants to be popular. To do as well in math as she feels she should, she thinks she'll have to do homework every night. She also believes that she can optimize her chance of being popular by spending a lot of time with her friends. Clearly, these two needs are in conflict. She can cope with the conflict by lowering the value she attaches to math, lowering her achievement standards for math, and, thereby, reducing the amount of time she will need to spend on it.

This analysis highlights the necessity of thinking about various achievement-related behaviors within the broad

social array of behavioral options available to children. For example, the decisions to try or not to try hard in math, or to spend time with your buddies instead of studying, are not made in isolation of other very salient life decisions that directly affect the perceived value of all of the available options. We should not underestimate the importance of these other goals for any student. But they are probably especially important for children who are uncertain they can succeed in the academic domain of school even if they decide to work hard.

Psychological cost of failure. Both the cost of success and the loss of valued alternatives are based on the assumption of anticipated success. But what if a student is unsure of success or is certain of failure? How might this uncertainty affect the perceived value of the task? The common practice of avoiding courses that might lower one's grade point average is a prime example of what can happen even to the most able students. For example, students planning to attend college or graduate school know they need high GPAs in order to compete. Therefore, they often avoid courses that will add even a B to their academic record.

As another example, consider those students who view themselves as competent, have strong achievement needs, yet are unsure of their mathematical abilities and feel as though they will have to try exceptionally hard to do well in their next math course. For these students, the cost of failure in math is high, precisely because failing to do

well has important implications for their self-concept. In addition, these students are also unsure of success and may believe that the amount of effort needed to do well is excessively high. Consequently, the perceived value of math should be lower for these students than for students who are either certain of success or who do not find the prospect of failing particularly costly.

What do children do when faced with these negative beliefs? If the option is available, they can avoid the activity altogether. This option, however, is available only to older students who are provided with some choice over their courses and with increased opportunity for involvement in extracurricular activities. But what if they are forced to engage in the activity, as is often the case in American elementary and junior high schools? This is the situation given recent theoretical and empirical attention by Nicholls (1976), Covington and Beery (1976), and Covington and Omelich (1979a, 1979b). These theorists have suggested, and empirically demonstrated, that children adapt to this situation by exerting the minimal level of effort necessary to get by. This strategy has two advantages. First, it prevents out and out failure. Second, it provides the children with a face-saving attribution for their lack of success; namely, "I didn't do better because I didn't try as hard as I could have." These theorists have argued that this attribution is psychologically less costly than attributing one's difficulties to lack of ability.

Furthermore, they argue that students are forced to attribute their academic school failures to lack of ability if they have tried as hard as they can and still have not succeeded. Unfortunately, the strategy of low effort puts children in a double bind because teachers often punish low effort, especially when it occurs in conjunction with poor performance. As a consequence, these students are basically damned if they try and damned if don't. Their situation can be improved only by changing either the tasks they must complete or their repertoire of skills, in order to insure that increased efforts will lead to increased success.

Teacher expectancy can feed into this dynamic in two ways. First, if the teacher believes that the low expectancy children can not succeed with increased effort, then the teacher may actually reinforce these children's coping strategy by letting low effort go unnoticed, or by focusing their criticisms of these children on misconduct rather than low achievement efforts. This teacher strategy allows both the teacher and the student to save face, provided the student doesn't create a discipline problem for the teacher.

Teachers who believe that the low expectancy children can succeed can also perpetuate this low effort dynamic. If a teacher believes that low expectancy children can succeed with increased effort, the teacher may try to control their academic efforts through insincere praise of trivial success and punishment of low effort. If the teacher does not also

diagnose each child's deficits and design programs to build their skill levels, then the children will not be provided with a strategy to improve. Increases in their efforts will not necessarily produce successful outcomes. And, to the extent that increased efforts do not produce increased success, these children will probably continue to opt for the low effort-low achievement coping strategy. It is only the teacher who both believes these children can do better and has the knowledge and skills to help them do better that can help these children break out of the failure-prone cycle.

Affective Experiences

Achievement activities elicit a wide range of emotional responses. Previous affect-laden experiences can influence one's responses to similar situations in the present or future. For example, if one has had bad experiences with a math teacher in the past, one may be less positive in general toward current mathematics courses and mathematics teachers. To understand the subjective value attached to various achievement activities, then, it is important to consider variations in the affective experiences children have had with different achievement activities. We will discuss how children's affective experiences vary as a function of: (a) overt, objective events such as success and failure, and the behaviors of parents and teachers, and (b) more subjective or psychological events such as causal attributions, and individual differences in confidence.

Objective events. Past successes and failures themselves have been shown to elicit characteristic affective responses (e.g., Weiner, Russell, & Lerman, 1978); success, especially on challenging tasks, leads to positive feelings, and failure, especially on easy tasks, leads to negative feelings (Harter, 1981a; Ruble, Parsons, & Ross, 1976). Other things being equal, these affective responses should influence the enjoyment or intrinsic value attached to related activities. One should like activities that have been associated with positive feelings in the past more than activities that have been associated with negative feelings. Both affect-laden behaviors of teachers and parents (e.g., praise, criticism, public ostracism, rejection) and more general experiences in school (e.g., test taking procedures, curriculum variations) have similar effects (see Covington & Beery, 1976; Hill, 1977; Nicholls, 1979; Eccles [Parsons] et al., in press; Ruble & Boggiano, 1980 for reviews). And, as is documented in several chapters in this book, teacher expectancies clearly relate to the affective reactions teachers have toward children. Low expectancy boys get an especially heavy dose of negative affective experiences throughout their schooling career. Therefore, it is quite reasonable that they turn off to (or lower the value they attach to) school and academic activities.

Psychological events. Weiner (1972) proposed that attributions of success and failure influence one's affective responses to achievement tasks as well as one's

interpretation of the meaning of success or failure for one's self-concept. He has argued that attributing success and failure internally magnifies the associated affect. Thus, we should feel best about successes attributed to our abilities and efforts and feel worst about failures attributed to a lack of effort and/or ability. Evidence has supported this prediction (Ruble et al., 1976; Weiner, 1974). In more recent work, Weiner, Russell, and Lerman (1978, 1979) have identified a broader link between attributions and affective responses. They found that attributing one's successes internally leads to feelings of pride, satisfaction, and competence, while attributing them externally leads to feelings of gratitude and surprise. Attributing one's failure to internal causes leads to feelings of guilt, resignation, and regret while attributing them to external causes leads to feelings of anger and surprise. Thus, contrary to Weiner's earlier predictions, attributions to both internal and external factors can produce strong, albeit different, affective responses.

As discussed in more detail earlier, Covington and his colleagues have also extended Weiner's original argument. Building on self-worth theory, they suggested two important affective dynamics: (1) attributions of failure to lack of ability (not lack of effort) lead to the most ego-debilitating affective response, and (2) while lack of effort will lead to negative affective reactions from the teachers, these reactions are preferable to the ego-

deflating affective reactions which accompany attributions to lack of ability. Covington, Spratt, and Omelich (1980) found support for these predictions.

These dynamics put low ability children in a particular bind. If the tasks at school are designed such that increasing their level of effort does not produce success, then increasing their level of effort is counterproductive for three reasons: (1) It doesn't work; (2) High effort coupled with low outcome increases the salience of a low ability attribution especially if other children in the class are succeeding with equivalent levels of effort; and (3) Failures attributed to low ability are especially painful. To cope, Covington, Spratt and Omelich (1980) predict that the student will stop trying. We predict that the child will also devalue the importance of the activity as a means of coping with the inevitable negative response of the teacher.

Summary of Subjective Task Value Variables

In this section we have argued that subjective task value is an important motivational mediator of achievement behavior. We have pointed out ways that children of different ability levels will come to attach different values to academic activities. And we have discussed ways in which teacher expectancies and teacher behavior might influence the value children attach to various achievement activities.

We have also tried to point out how values and expectancies interact in shaping achievement behavior. This analysis emphasizes the complex interplay of the psychological needs of students, their interpretation of their academic experiences, and the structure of the learning environment they are in. It should be clear from this analysis that there are many ways in which children's ability or skill levels upon entering a class can interact with their experiences in the class to influence their achievement behaviors.

Task Focus and Mastery Orientation:

What Do I Need to Do in Order to Succeed?

We now come to the third and final motivational question: "What do I need to do in order to succeed?" The answer to this question depends on at least two different dynamics. First, at the most basic level, knowing what must be done in order to succeed involves the students' ability to play the student role. Being able to maintain attention and to focus one's attention on academic tasks are the cornerstones of this role. If students can't, or don't, attend carefully to their teacher's directions and instructions, they will not know what they have to do in order to succeed. The second dynamic associated with this question involves the response students make to difficulty. Students may confront difficulties either in their daily assignments or on evaluative tests. When faced with

difficulty on daily tasks, some students (the mastery oriented students) try to analyze the source of their difficulty and to seek help if necessary. Other students become anxious and respond with behaviors more characteristic of learned helpless children (Diener & Dweck, 1978). These children have great difficulty answering the question "what do I need to do in order to succeed?" In fact, their defense strategy appears to prevent their even asking this question in the face of difficulty. A similar dichotomy of student responses has been discovered for test-taking situations. Each of these dynamics is discussed below.

Attention and the Student Role

One consequence of perceived control over academic outcomes is that children will work hard and attempt to master the assigned school tasks. But before they can succeed at the task, they must know what the task is, must understand the teachers' instructions, and must be able to focus their energy on the task. All three of these require attention. Theorists from a variety of perspectives have discussed the importance of children maintaining their attention on the task at hand. For instance, those interested in teaching effectiveness have stressed the importance of increasing academic engaged time, mostly through direct instruction (see Brophy, 1979; Rosenshine & Berliner, 1978; Stallings, 1980; Stallings & Kaskowitz, 1974). Academic engaged time is said to be important

because, during engaged time, children are focusing their attention on their work, and should be learning more. In support of this hypothesis, individual differences in attentiveness do predict school achievement. Samuels and Turnure (1974) found that attentiveness during reading instruction is positively related to performance on a word recognition test. Soli and Devine (1976), in an observational study of third and fourth grade classrooms, found not attending to be one of the best predictors of low achievement. Camp and Zimet (1975) found that poor readers are less attentive during reading instruction. Lambert and Nicholl (1977) analyzed teacher ratings of their first grade pupils. They found that the teachers' ratings of children's problems in maintaining attentiveness in school is one of the strongest predictors of low reading achievement. Finally, Cobb and Hops (1973), Hops and Cobb (1974), and Walker and Hops (1976) have shown that training children in the early elementary grades to attend better, follow directions, and work hard (skills called "academic survival skills") significantly improves the children's reading performance.

If low expectancy students are having trouble focusing their attention on the task or on the teacher's instructions, then they will not be able to successfully complete, or master, the school tasks assigned to them. Teachers may misdiagnose their problem as one of lack of sufficient intellectual capacity rather than inadequate

attention monitoring skills. If this happens, or if the teacher has no strategy for helping students improve their attention monitoring skills, then "Golem" teacher expectancy effects are likely to occur.

Mastery Orientation versus Self-focus

The second set of responses relevant to our third question is a set of responses that have been discussed under the labels of mastery orientation (Diener & Dweck, 1978) and task versus self-focus (Nicholls, 1979). Broadly defined, these responses reflect children's reaction to failure and/or difficulty. As discussed above, some children give up when faced with difficulty while others try to surmount the difficulty. Diener & Dweck (1978) have argued that one critical distinction between these two types of children is their interpretation of the meaning of difficulty. Learned helpless children appear to conclude that having difficulty on academic tasks reflects low ability while mastery oriented children conclude that having difficulty reflects the use of an inappropriate strategy.

Nicholls (1979, 1980) has elaborated on this distinction, suggesting that children may differ in their basic orientations toward achievement. Some children, he suggests, have an ego-involved orientation toward achievement; others have a more task-involved orientation. Individuals with an ego-involved orientation define achievement tasks as tasks that can be used to demonstrate one's abilities. What is valued is demonstrating ability.

Mastering the task is not seen as the end in itself, but rather is seen as a means of demonstrating that one has high ability relative to others. Individuals with a task-involved orientation define achievement tasks in terms of task mastery; what is valued is the opportunity to gain understanding and to master the task. Task mastery is seen as an end in itself rather than as a means to an end.

Nicholls argues that the ego-involved orientation has negative consequences for all but those who can demonstrate high ability. Those who do not demonstrate high ability will perceive they have failed, even if they have acquired new skills. Thus, when children with an ego-involved orientation start having difficulty with an academic task, they will begin to doubt their abilities and may shift to the low effort strategy we discussed earlier in order to save face.

While there may be fairly stable individual differences in ego-involved versus task involved orientation, Nicholls (1979), as well as others, has also argued that the situation can affect the likelihood of either of these orientations governing students' academic behaviors. Some situations, by their very nature, focus children's attention on self-evaluation; other situations minimize the salience of self-evaluation, thus increasing the salience of task mastery goals. Nicholls has suggested that schools which emphasize social comparison and competition among students, and learning as a means to another end, foster the ego-

involved orientation. As a consequence, many students in such schools perceive themselves as failures. (See also, Johnson & Johnson, 1974; and Slavin, 1977, on differences between competitive and cooperative learning environments.)

Under conditions of task involvement, Nicholls asserts that all individuals can feel involved if tasks of different difficulty level are provided so that all can increase their skills (see Bloom, 1976, on mastery learning). With task involvement, individuals judge their performance in terms of skills gained, rather than in terms of their performance relative to that of others. Thus, relative ability standing becomes less important. Nicholls believes that task involvement can lead all individuals to be optimally motivated in educational settings, since what is valued is task mastery rather than doing better than others. Given the work on attentional focus and achievement, and Nicholls' discussion of the benefits of a task-involved orientation, the implication for teachers is to foster task focus, and to minimize competition, social comparison, and an ego-involved orientation toward academic tasks. Unfortunately, many widely used school practices, such as racking, fosters the very things that Nicholls and Eccles, Midgley, and Adler (in press) have argued increase the salience of ego involvement, namely, competition and social comparison.

Anxiety in Evaluative Contexts

The final set of responses relevant to the question "what do I need to do in order to succeed?" relate the

general topic of test anxiety. There has been a long tradition of work on the debilitating effects of test anxiety on children's performance on evaluative tasks such as exams. This research indicates that the debilitating effects of test anxiety emerge gradually over the elementary school years (Hill & Sarason, 1966). The level of anxiety increases across the elementary school years. In addition, while there is essentially no relationship between reported anxiety and school performance in the early elementary school years, by the middle elementary years modest negative correlations between anxiety and school performance begin to emerge. By the end of elementary school, this negative relationship has reached an average correlation of $r = -.4$. Furthermore, by the end of elementary school, high anxious children are over a year behind low anxious children on tests of basic skills.

The increases in anxiety across the elementary school years suggest that teacher-student interactions, as well as parent-child interactions, have an important influence of the development of anxiety. Some studies have shown that high anxious children do better and are less anxious in more traditional, controlled classrooms than in open classrooms (see Cronbach, 1977), perhaps because they need more direction. Other studies (Brophy & Evertson, 1981; Cooper, 1977; see also Brophy, 1981) have shown that teacher praise may help lessen student anxiety. Still other studies have established a link between testing practices and the

debilitating effects of anxiety on performance (Hill, 1977). Thus, it is clear that classroom practices do influence anxiety; and, while no one has assessed the role of teacher expectancy effects on anxiety directly, test anxiety does interfere with some children's test performance and may be one reason some children enter a class with deficient skills.

But why are we including this discussion of test anxiety under the general question of "what do I need to do in order to succeed"? Several theorists (Liebert & Morris, 1967; Sarason, 1972, 1975a; Wine, 1971, 1980) have suggested that the lowered performance of high anxious individuals is due to the difficulty they have in attending to relevant task information, because of their preoccupation with doing poorly. Wine (1971, 1980) reviewed numerous studies documenting the fact that high anxious persons are more self-preoccupied as they do various tasks (e. g., Doris & Sarason, 1955; Sarason & Ganzer, 1962; Sarason & Koenig, 1965), and the fact that they have more task-irrelevant thoughts than do low anxious persons. These studies suggest that test anxiety is similar to the construct of mastery orientation versus self-focus discussed above. It differs primarily in its specificity. It is evident primarily in testing situations. But, like mastery orientation, it appears to be influenced by the definition of the task. If a task is described as a test of ability, high anxious individuals do less well than low anxious individuals (Wine,

1971). When instructions emphasize that the task is nonevaluative or that the most important thing is to focus on the task, high anxious individuals often do better than low anxious individuals. (In fact, low anxious individuals' performance sometimes declines somewhat relative to their performance in highly evaluative situations). In situations in which there are optimal task instructions, high and low anxious individuals often perform at similar levels (see Sarason, 1972).

These results suggest that attentional focus may be a critical component of test anxiety; just as it is a critical component of mastery orientation. Unfortunately, most of the studies on anxiety and attentional focus have been conducted with adults. But the few developmental studies which exist support this point of view. For example, Nottelmann and Hill (1977) observed fourth and fifth grade children as they did an anagrams task. As expected, high anxious children performed more poorly than did the low anxious children. Furthermore, the high anxious children were off task more often than the low anxious children, and asked fewer task-related questions. Dusek, Kermis and Mergler (1975) and Dusek, Mergler and Kermis (1976) found that high anxious children have difficulty attending to relevant information in a learning situation, and thus perform more poorly than low anxious children. Providing the high anxious children with an attentional encoding strategy improved their performance. Dusek et al. (1975,

1976) also found that high anxious children have increasing difficulty focusing on the task-relevant information as they get older. These studies clearly show that high anxious children, like high anxious adults, do not attend well to relevant task demands and, as a result, may not be very efficient at analyzing what is needed in order to succeed.

What can be done about the problem of anxiety in evaluative situations? Work with both adults and children (Dusek et al., 1976; Meichenbaum, 1972, 1977; Sarason, 1973, 1975b) indicates that directing high anxious persons' attention more toward the task and away from their own self-preoccupation improves their performance. Changing task instructions from evaluative to nonevaluative also improves the performance of both high anxious adults and children (Sarason, 1973, 1975b; Williams, 1976).

Hill and his colleagues have examined the impact of testing conditions on children's test performance. Hill and Eaton (1977) studied the impact of time limits on the performance of high and low anxious, upper elementary school children. They found that time limits adversely affected the performance of the high anxious children. When no time limits were set, the high anxious children performed quite similarly to the low anxious children in terms of both speed and accuracy. Similar results were reported by Plass and Hill (1979).

Wigfield, Hill, and Plass (1980) extended this research program by investigating how changing the testing conditions

used for school-wide achievement tests would influence the performance of junior high school students. They found an interaction between anxiety, testing condition and grade on the math subtest. Under standard conditions, the low anxious children performed much better than the high anxious children. The seventh grade high anxious children did best in the relaxed time limits condition. The eighth grade high anxious children did best in the condition that combined the relaxed time limits and special instructions; in fact, they performed as well as low anxious children in this condition. While the interaction did not reach significance on the reading measure, the pattern of means was quite similar, especially for the eighth graders.

These studies clearly demonstrate how negative motivational dynamics can lower many children's test performance. They also demonstrate how these effects can be minimized. The results are especially compelling since both laboratory and field-based procedures were used. Because changing testing dynamics allows high anxious children to perform as well as low anxious children, Hill (1980) has argued that anxiety is the causal agent in the anxiety-performance relationship. While we believe this conclusion is somewhat premature, we do believe that the work clearly shows that high anxious children's performance can be improved by modifying the testing situation.

Based on these results, Hill (1980) and Wigfield (1981) have made several suggestions for changing testing

conditions in schools to help high anxious children perform better. One is to provide dual testing programs, in which children take tests under standard conditions and under optimizing conditions with relaxed time limits, changed instructions, etc. A student's score would be the higher of the two sets of scores. Another suggestion is to gauge tests more closely to children's performance level, rather than giving the same test of children at several different grades. With this procedure children would not be faced with as many overly difficult problems. Finally, classroom teachers could introduce activities to help children become familiar with testing and other forms of evaluations. In one such program at the elementary school level (see Hartman, 1981), children were given practice working problems under time limits, answering questions in test-like format, and dealing with computer answer sheets, and were allowed to discuss the purposes of testing with their teacher. Initial results of these experiences have been encouraging, especially for high anxious children.

With regard to the more general perspective of teacher expectancy effects on children's motivation, what is important here is that teachers tailor their teaching to student characteristics. Children identified as having test-taking problems could be helped through programs like those just summarized. Less anxious students may not need such programs. Structuring classrooms in this way will avoid expectancy effects like "This student never does well

in evaluative situations". Rather, positive steps will be taken to overcome the problem.

Implications for Teacher Expectancy
Theory

Our analysis highlights the complexity of the relationship between motivation and achievement in the classroom. We have tried to stress the importance of an ecological perspective on motivation in the classroom. As Bronfenbrenner (1977) has pointed out, both teacher and student behaviors are better understood when we consider the social and psychological context in which these behaviors occur. In this section, we will summarize the implications of our analysis for teacher expectancy theory.

First, it is important to consider the role of ego-defensive strategies as well as more approach-oriented learning strategies in shaping children's classroom behaviors. Both students and teachers have a need to defend their self-esteem. Unfortunately, the strategies adopted by both low achieving students and teachers faced with low achieving students are often counter productive in terms of the students' continued educational progress. Behaviors designed to maintain self-worth are a prime example of this process. Covington and Beery (1976) have argued this case quite eloquently; our only additional suggestion is that the "Golem" effect may result from these ego-defensive strategies. Furthermore, since these strategies have

evolved within the traditional classroom structure and appear to serve an adaptive function in that environment, it may be difficult to avoid these effects within the traditional structure.

Second, again taking an ecological perspective, it is important to note that beliefs regarding the meaning of failure and lack of ability are part of the cultural context in which teacher expectancy effects occur. It is our contention that the belief that lack of ability reflects a stable learning deficit rather than a skill deficit is a cultural myth widely held in this culture (cf. Ashton & Webb, 1982; and Lewis, 1978 for a similar discussion). Furthermore, it is a belief held by both students regarding their own performance and by teachers regarding the learning potential of their students, especially if there has been a history of poor performance (Beckman, 1970). Recent cross cultural data gathered by Harold Stevenson and his colleagues provide some support for our hypothesis that these beliefs are cultural myths. When asked to make an attribution for poor performance in mathematics, Japanese parents give a very different response than American parents; Japanese parents attribute poor performance to lack of effort while American parents attribute it to lack of ability. Informal discussions with teachers have suggested a similar cross cultural difference in belief structures (Stevenson, personal communication, 1982).

Because the belief in the stability of lack of ability is so widespread and because it has such a strong impact on behavior, we think this belief underlies much of the "Golem" effect. Specifically, we believe that both students' and teachers' beliefs regarding their ability to control and change future performances is the critical mediator between past and future performance. This analysis suggests that teacher expectancy researchers ought to focus on this belief structure rather than on the teachers' assessment of the students' current ability level. Too often teacher expectancy is operationally defined in terms of the teacher's assessment of the children's current ability level or in terms of test scores provided to the teacher by the investigator. If we are correct, it is really the teacher's expectancy regarding the children's potential for future learning that is the critical mediator of teacher expectancy effects. This belief ought to be tested or manipulated directly.

The final theoretical point we'd like to emphasize is the need for a developmental perspective on teacher expectancy effects. We have stressed throughout this chapter the fact that the link between motivation and achievement varies depending on the children's age. Consequently, the processes mediating teacher expectancy effects should also vary across grade level. Practices such as tracking or ability grouping may have a strong negative effect in some grades and minimal effects in other grades.

A developmental perspective is also critical to the design of intervention programs for the optimal intervention strategies may also depend on grade level.

Implications for Teacher Expectancy

Research and Practice

While most models of teacher expectancy effects posit a motivational mediator, very few studies have actually tested these hypotheses. Most of the teacher expectancy studies have assessed or manipulated teacher expectancy (defined in terms of perceived student ability level) and then measured either teacher/student interaction patterns or student achievement. In one of the few studies to actually test the links between teacher expectancy, teacher/student interaction patterns, student perceptions of teacher expectancy, and student motivational beliefs, we found the interrelations to be very weak and highly context dependent (Parsons, Kaczala, & Meece, 1982). We found very little overlap between the interaction variables that were related to the students' perceptions of their teacher's expectancy, the interaction variables that were actually related to the teachers' expectancies, and the interaction variables that were related to the students' beliefs. Despite these rather weak results, teacher expectancies themselves were related to student expectancies even after the effects of the students' past history of achievement had been partialled out. These results indicate that teacher expectancies do

influence student beliefs but that these effects are not being mediated to any great extent by everyday student/teacher interaction patterns or by students' perception of the teachers' expectancies (see Eccles [Parsons] et al., in press). A similar conclusion has been reached by Asbury (1982) and by Weinstein and her colleagues (see Chapter ??, this volume). Therefore, the motivational links mediating between teacher expectancy and student achievement still need to be studied.

Stronger evidence for the link between teacher behavior and student motivation has come out of the literatures on effective teaching, classroom climate, and tracking. Reviewing these literatures is beyond the scope of this paper. We have already referred to the teacher effectiveness literature; the other literatures have been reviewed adequately elsewhere (see Brophy [Chapter 9], for an overview of the teaching and teacher effectiveness literature; Thomas [1980] and Eccles, Midgley, & Adler, [in press] for reviews of the classroom structure and classroom climate literatures; and Eccles, Midgley, & Adler [in press] for a review of the tracking literature). Several conclusions can be drawn from these reviews. First, class structure and teaching styles do affect student motivation. Motivation, especially in terms of personal efficacy, perceived control, and subjective task value, is highest when students are given some responsibility over their learning, when instruction is based on individualized

mastery goals rather than on norm-referenced achievement-standards, and when the focus of attention is placed on task mastery rather than on ability level evaluation. Learning environments characterized by external "rewards, norm-referenced achievement standards, competitiveness, uniform goals, and an emphasis on achievement rather than effort" can result in "a cumulative depression of the affective and motivational prerequisites of academic achievement, at least for some students" (Thomas, 1980, p. 234). Therefore, it is possible to avoid the "Golem" effects associated with low teacher expectancies.

Second, different teaching strategies are needed to effectively motivate children of different skill levels. Low skill-level children are especially likely to be demoralized by the traditional classroom practices discussed in the previous paragraph. These children are in particular need of strategies that minimize the probability of failure, that tailor learning goals to the students' current skill level, that teach the students skills to insure success, that base reinforcements on effort and improvement rather than norm-referenced achievement level, and provide sufficient guidance and structure to keep the student on-task. Therefore, teachers wishing to avoid the "Golem" effects will have to make a special effort to motivate low skill-level children.

Third, these effective teaching strategies are most likely to occur when the teacher believes that students can

master the material and that teachers can and should help the students' accomplish this goal, in other words, when belief in teacher and student efficacy is high. It is important to note, however, that these beliefs are not sufficient to insure effective teaching with low skill-level children. The teachers must also have the knowledge and administrative support to implement effective teaching practices.

Fourth, tracking students by skill level does not appear to an effective strategy of insuring an appropriate teaching environment for low skill-level students. If anything, the "Golem" effects associated with low teacher expectancy are even more likely to emerge in tracked classrooms than in non-tracked classrooms. Tracking is typically justified with the following rationale. Students learn best when the material is adjusted to their level of understanding. The most efficient way to teach to a student's level of understanding is to group the students by ability and plan the entire group's curriculum at that level. Use of this teaching strategy is presumed to help the students' progress by avoiding a mismatch between the cognitive level of the lesson and the cognitive level of the student. In addition, the argument is often made that lower ability students' self-esteem suffers in a heterogeneous classroom where they will be compared to brighter students. Unfortunately, tracking within this culture has three basic characteristics: (a) It functions to stratify the population

it is grouping. (b) It ranks the strata it creates. It is generally accepted, for example, that college prep tracks are "better" than vocational tracks and that high ability tracks are "better" than low ability tracks. (c) Due to our cultural myth regarding the meaning of low ability, it provides students and teachers with an explanation for the students' low skill level that absolves both the student and teacher of responsibility for continued learning.

As a consequence of these characteristics, the learning environment in many low tracked classrooms is very poor, especially for low skill-level students (see Brophy, chapter 9). In part, this is a consequence of student characteristics. These classes are harder to manage and traditional teaching techniques are not likely to be very successful. But the poor environment can also be exacerbated by the teacher's efficacy beliefs. Because they think that low skill children can not learn, or do not want to learn, some teachers essentially stop teaching in their low tracked classes (Ashton & Webb, 1982; Prawat, Lanier, & Byers, undated). Not surprisingly, little learning occurs in these classrooms.

Student motivation is also undermined by these tracking practices in the low tracked classes. Placement in low tracks is related, for example, to lower levels of aspiration (Metz, 1978; Oakes, 1981), to feelings of worthlessness and rejection (Byers, 1961), to low self-esteem (Oakes, 1981; Prawat, Lanier, & Byers, undated), low

self-concept of ability (Mann, 1960), lowered involvement in class activity (Metz, 1978), and greater test anxiety (Cox, 1962; Levy, Gooch, & Kellmer-Pringle, 1969). Apparently, students in the lower tracks accept the notions that they are to blame for their placement (Oakes, 1981) and that there is little reason to keep trying.

This situation is indeed unfortunate given the somewhat arbitrary nature of student placement in tracks (Rist, 1970; Rosenbaum, 1976) and the results of studies on the effects of being moved up in track placement. For example, Tuckman and Bierman (1971) found that both teacher expectations for low skill-level students and the students' actual performance on standardized tests improved significantly when these students were moved up in their track placement. In addition, the teachers in this study recommended that most of the students remain in the higher track the following year. These results suggest that the achievement level differences between tracks is as much a consequence of teacher and student attitudes as it is of true ability differences. In addition, they suggest that the same mechanisms underlying teacher expectancy effects within classrooms may underlie the "Golem" effects associated with tracking.

In conclusion, let us reiterate our main themes. First, we believe that the motivational variables underlying teacher expectancy effects are basically similar whether one is focusing on the teacher or the student. These variables,

we have argued, can best be summarized in the form of three questions: "Can I succeed at this task?", "Do I want to succeed at this task?", and "What do I need to do to succeed at this task?". For the student these questions become "Can I learn this material?", "Do I want to complete the assignment?", and "What do I need to do in order to complete the assignment?" For the teacher these questions become "Can I teach this child the material?", "Do I want to teach this child the material?", and "What do I need to do in order to teach this child the material?" If both students and teachers can answer those questions positively, then "Golem" effects can be avoided, or at least minimized. We believe this outcome would be especially beneficial for low achieving students.

Table I

Motivation: The Actor's View

<u>Can I succeed?</u>	<u>Do I want to succeed?</u>	<u>What do I need to do (or know) in order to succeed?</u>
Self-Concept of Ability	Subjective Task Value	Attention
Expectations for Success	Attainment Value	Task Analysis
Perceived Control	Intrinsic Value	Mastery Orientation
Learned Helplessness	Utility Value	Ego-Involved Orientation
Personal Efficacy	Personal needs	Anxiety
Effortance Motivation	Self-Schemata	
	Perceived Cost of Success and Failure	
	Effort needed to Succeed	
	Loss of Valued Alternative Opportunities	
	Cost of Failure	
	Affective Experiences	
	Objective Events	
	Psychological Events	

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