



I L L I N O I S

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Large-scale Digitization Project, 2007.

70.152
2261
10.288

Technical Report No. 288

SOCIAL AND MOTIVATIONAL INFLUENCES ON READING

Allan Wigfield and Steven R. Asher
University of Illinois at Urbana-Champaign

September 1983

Center for the Study of Reading

TECHNICAL REPORTS

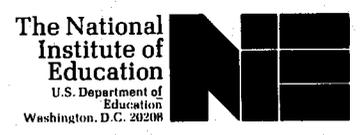
THE LIBRARY OF THE

NOV 3 1983

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
51 Gerty Drive
Champaign, Illinois 61820

BOLT BERANEK AND NEWMAN INC.
50 Moulton Street
Cambridge, Massachusetts 02238



CENTER FOR THE STUDY OF READING

Technical Report No. 288

SOCIAL AND MOTIVATIONAL INFLUENCES ON READING

Allan Wigfield and Steven R. Asher
University of Illinois at Urbana-Champaign

September 1983

University of Illinois
at Urbana-Champaign
51 Gerty Drive
Champaign, Illinois 61820

Bolt Beranek and Newman Inc.
50 Moulton Street
Cambridge, Massachusetts 02238

The research reported herein was supported in part by the National Institute of Education under Contract No. NIE-400-81-0030. To appear in P. D. Pearson, R. Barr, M. L. Kamil, and P. B. Mosenthal (Eds.), Handbook of Reading Research. New York: Longman, in press.

EDITORIAL BOARD

William Nagy
Editor

Harry Blanchard

Nancy Bryant

Pat Chrosniak

Avon Crismore

Linda Fielding

Dan Foertsch

Meg Gallagher

Beth Gudbrandsen

Patricia Herman

Asghar Iran-Nejad

Margi Laff

Margie Leys

Theresa Rogers

Behrooz Tavakoli

Terry Turner

Paul Wilson

Social and Motivational Influences on Reading

There has been a long-standing interest in how motivational and socialization factors influence children's reading skills (Athey, 1976; Bloom, 1976; Burt, 1917; Entwisle, 1979; Ladd, 1933; Matthewson, 1976; Purkey, 1970; Resnick & Robinson, 1975; Wattenberg & Clifford, 1964). However, the research literatures addressing these topics have remained relatively fragmented. On the one hand, researchers interested in the development of achievement motivation processes generally have not explored how such processes operate in particular achievement contexts such as reading. On the other hand, reading researchers and those studying home and school socialization practices often have conceptualized motivation in rather general terms, and have not attended to specific processes or components of achievement motivation. Integrating these literatures should provide a more complete account of social and motivational influences on reading.

The purpose of the present paper is to integrate findings from these disparate research traditions and to provide suggestions for future inquiry. In addition, a particular focus of this paper is on how race and social class differences in children's reading performance are influenced by social and motivational factors. The problems of race and socioeconomic status (SES) differences in achievement have been at center stage in educational research for nearly three decades. Research has clearly demonstrated that such differences exist; black children experience more difficulty with reading than white children, and the discrepancy increases across the school years (Coleman et al.,

1966; Singer, Gerard, & Redfearn, 1975). Similarly, children from lower SES homes perform less well than children from middle-class homes (Armor, 1972; Coleman et al., 1966; St. John, 1970), and here too the difference increases over age (Coleman et al., 1966; Jencks, 1972). Like others (e.g., Entwisle, 1979; Resnick & Robinson, 1975), we believe that a social-motivational perspective can make an important contribution to understanding and overcoming such differences.

In the first section of this paper we will examine current trends in achievement motivation theory. Subsequent sections will focus on socialization research in the home and school as it relates to reading. Throughout our discussion, we will highlight research that is needed to bridge the motivation and socialization of reading literatures.

Achievement Motivation Theory: Current Trends

Achievement motivation has interested social and educational psychologists for several decades. While a complete review of achievement motivation theory is beyond the scope of this chapter (see Eccles & Wigfield, in press; Heckhausen, 1982, for more complete reviews), we will briefly discuss motivational processes thought to be most important for high achievement, and developmental differences in those processes.

In early theoretical views (McClelland, 1961; McClelland, Atkinson, Clark, & Lowell, 1953), the achievement motive was conceptualized as a relatively enduring personality trait. Individual differences in this trait were said to be due to different child-rearing practices, and researchers assessed how parental

practices influenced children's developing achievement motivation (e.g., Rosen & D'Andrade, 1959; Winterbottom, 1958; see more complete discussion below). Subsequent theorists (Atkinson, 1964) specified that the achievement motive is a function of expectancy and value; motivation to pursue a goal is determined by the expectancy one has of attaining that goal and the value one places on attaining it. Atkinson emphasized affective processes, especially the motive to approach success and the motive to avoid failure. Research in this tradition has concentrated mostly on how individuals differing in the motives to approach success and avoid failure differ in the risks they are willing to take in achievement situations (see Atkinson & Raynor, 1974).

More recently, there has been interest in cognitive determinants of achievement motivation. Weiner and his colleagues (Weiner, 1972, 1974, 1979; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971) have argued that individuals' causal reasoning or attributions about achievement outcomes influence their motivation and behavior in achievement situations. Like Atkinson, Weiner views achievement motivation as a function of expectancy for success and the value one places on the outcome. However, in contrast to Atkinson he emphasizes that reasoning about causes of success and failure, rather than affective processes, determines expectancies and values. This view has gained wide acceptance as a powerful explanation for achievement motivation, and so we will consider it in more detail. We will focus on the two questions posed earlier: what are the important motivational processes, and how do they develop?

Initially, Weiner and his colleagues posited four factors that are used most often to explain achievement outcomes—ability, effort, task difficulty, and luck.¹ They classified these factors into two dimensions, stability and locus of control. Stability refers to whether the cause is changeable or not, and locus of control refers to whether the cause is believed to be personal (internal) or environmental (external) (see Rotter, 1954, 1966). In this classification scheme, ability is an internal, stable cause; effort an internal, unstable cause; task difficulty an external, stable cause; and luck an external, unstable cause.

The attributions people give to explain success and failure are postulated to have consequences for achievement motivation, expectations for success, achievement value and affect, and achievement behavior. For instance, Weiner and Kukla (1970) classified subjects as high or low in achievement motivation based on their responses to an achievement motivation scale. Individuals high in achievement motivation (particularly males) were more likely to assume personal responsibility for success than were those low in achievement motivation. Individuals low in achievement motivation were more likely to believe that failure was due to lack of ability, whereas the group high in achievement motivation was more likely to believe failure was due to lack of effort. Thus, at least for males, positive achievement motivation was related to attributing success to ability and failure to lack of effort, and negative achievement motivation is related to attributing failure to lack of ability and success to luck or other variable factors (see also Covington & Omelich, 1979b,c; Ickes & Layden, 1978).

Expectations for future performance are said to be related to attributional stability (Weiner, 1979, Weiner et al., 1971). If performance on a task is attributed to stable factors, then the person will be relatively sure about his or her level of future performance on similar tasks. For example, if success on a task is attributed to ability, then expectations for future performance will be high. Similarly, if failure is attributed to a stable factor, then expectations for future success will be low. If success (or failure) is attributed to a variable factor (e.g., effort) then expectations about future success will be less certain. This description has been supported by results of several studies (Fontaine, 1974; McMahon, 1973; Valle & Frieze, 1976; Weiner, Nierenberg & Golden, 1976).

Weiner et al. (1971) initially linked achievement value and affect to the locus of control dimension; stronger affective reactions were said to occur when outcomes were attributed to internal factors. More recently, Weiner (1979) proposed two different sources of affect in achievement situations. First, people generally feel good about success and bad about failure with more differentiated reactions occurring depending upon the attribution made for the outcome (see Weiner, 1979). Ability attributions have the greatest impact on self-esteem and so individuals tend to feel best when they attribute success to ability, and feel worst when failure is attributed to lack of ability (see Sohn, 1977).

Finally, attributions influence subsequent achievement behavior. Attributing success to ability and failure to lack of effort means the person generally will expect to succeed, and will be

willing to try more challenging tasks. When the person fails, the failure can be overcome by trying harder, so the person will persist in the face of failure. In contrast, attributing success to a variable factor and failure to lack of ability means that the person will not expect to succeed. When the person fails, he or she will give up quickly, since extra effort will not overcome the person's perceived lack of ability.

What about race and SES differences in attributional processes? Weiner et al. (1971) hypothesized that race and SES differences in achievement could be due to differences in attributional processes. For instance, individuals from poverty backgrounds may make more external attributions for success, since they likely feel less control over their environment (see Hess, 1970). Few studies have assessed this possibility. However, some support for this hypothesis was obtained by Murray and Mednick (1975) in a study of success and failure attributions of high- and low-achievement-motivated black men and women. Murray and Mednick found that black male subjects were more likely than females to make external attributions for success. Friend and Neale (1972) investigated social class and race differences in fifth-grade children's attributions for success and failure. White children ranked ability and effort as more important than did black children in explaining successful outcomes. All groups were equally ashamed of failure, but black children did not experience as much pride in success as white children did. Overall, however, there were few differences among the different groups in terms of their attribution patterns.

Studies to date, then, have not fully tested Weiner et al.'s hypothesis that race and SES differences in achievement could be due to attributional differences. More research is needed to assess this possibility. Additionally, given black and low-SES children's relatively poor reading achievement, the attribution model would predict that these children will have low expectations for future success in reading and negative affect toward reading. We will discuss these points more fully below.

Developmental Differences in Achievement Motivation

There is increasing evidence that children differ across age in how they interpret the information they receive in achievement situations, and thus differ in their achievement motivation. Parsons and Ruble (1977) found that young children maintained higher expectancies for future success after experiencing failure than did older children. Younger children were more likely to ignore the information that they were not doing well, and to naively continue to expect that they would succeed. Similarly, Nicholls (1978, 1979) demonstrated that young children overestimated their attainment in school, and did not perceive school success as related to ability. Older children more accurately estimated their attainment, and saw school success as due to ability. Nicholls (1978, 1980) also showed that five- and six-year-old children often could not judge which of a set of tasks was most difficult, or realize that difficult tasks require more ability. Young children generally are happy about success and unhappy about failure, regardless of the degree of task difficulty or the cause of the success or failure (see Veroff, 1969).

Research also indicates developmental change toward making more differentiated attributions. Nicholls (1978) found that during the early elementary school years, children did not conceptually distinguish effort and ability as separate causes of outcomes. Instead, being able also meant trying hard. Only at about age 12 or 13 were the two causes fully distinguished. Similar results were obtained by Kun (1977).

These studies indicate that children in the early grades interpret success and failure information differently than older children and adults, and also have different conceptions of ability and effort. Interestingly, in simple situations in which success and failure were quite obvious (Frieze, 1976; Karabenick & Heller, 1976), children's attributions did not differ as much across age as shown in the Nicholls (1979) and Kun (1977) studies. However, since the success and failure feedback children receive in school often is rather unclear (see Blumenfeld, Pintrich, Meece, & Wessels, 1982), it seems that young children may not interpret that information accurately.

Although the development of attributions has been the focus of some attention, the antecedents of the attribution process have not been studied extensively. Weiner et al. (1971) made some general inferences about how different attribution patterns may begin. For instance, they proposed that people's judgments about their ability are a function of past success or failure on different tasks, and of the consistency of that past success or failure. However, little work has been done on how parents influence their children's attributions, expectations, and affective

reactions to success and failure. More work has been done on how teacher feedback influences these processes. In general, there is a need for more research on the socialization of achievement motivation. As we discuss the influence of different socialization agents, we will indicate how they may influence motivational processes and will suggest avenues for future inquiry.

Recently, several studies (e.g., Covington & Omelich, 1979a, Parsons, in press) have shown that attributions obtained in "real world" achievement situations have less of an influence on subsequent achievement motivation than Weiner predicted. Other variables, notably expectancies and values, had a stronger influence on subjects' task persistence and performance. These results suggest that we need to take a somewhat broader approach to the study of achievement motivation, rather than focusing nearly exclusively on attributions. Because constructs such as expectancies and values are particularly important ones to consider, we will discuss them in sections on home and school environments.

In summary, the attribution model emphasizes the role of cognition in achievement motivation. There are important developmental differences in reasoning about achievement outcomes, and other achievement-related constructs have been shown to be important predictors of achievement motivation in real-world settings. We turn next to a discussion of how the home environment influences children's acquisitions of reading skills and motivation to read.

Home Influences on Reading

Several large-scale studies of educational achievement have demonstrated that factors in the home environment play a critical role in determining children's achievement motivation and performance in school. The best known of these studies in the United States was conducted by Coleman et al. (1966), who found that home factors outweighed school factors in determining children's achievement. Although the methodology of this study has been criticized (e.g., Dyer, 1968; Shea, 1976), the major finding has been relatively well accepted. Research in other countries also points to the importance of home influences (e.g., Davie, Butler & Goldstein, 1972; Douglas, 1964). Since parent-child interaction is the most important home influence on children's later achievement behavior in school, we will focus on how parents facilitate or constrain the development of reading skills and motivation to read by structuring the home environment and interacting with their children. We will consider studies which have assessed how parents influence children's achievement motivation, and also studies looking at how parent-child interactions relate to the acquisition of reading skills per se. Although race and SES differences in reading will be a main focus of the discussion, we hope to show that particular parental behaviors are the most important variables.

Parental Influence on the Development of Achievement Motivation

Although currently there is little research on the home antecedents of particular motivational processes such as attributions, earlier research in the achievement motivation area did

attempt to assess home influences on the development of achievement motivation (See Parsons, Note 1, for a detailed review.) The studies assessed various hypotheses of McClelland's (1961) achievement motivation theory. A major tenet of McClelland's theory is that experiences involving independent mastery are essential to the development of achievement motivation. Several studies have assessed this hypothesis. In a retrospective interview study, Winterbottom (1958) found that mothers of eight- to ten-year-old boys high in achievement motivation (as measured by the Thematic Apperception Test) made more independence demands earlier on, were less restrictive, and were more rewarding for their children's successes.

In an observational study, Rosen and D'Andrade (1959) compared how middle- and lower-SES parents and their sons interacted on various analogue achievement tasks, ranging from block stacking and ring toss tasks to an anagrams task. Results showed that parents of nine- to 11-year-old boys who were high in need for achievement had higher performance expectations for their sons, and were generally more involved and interested in their sons' achievement-related behavior. This pattern was especially true of mothers, and held even when performance differences between children were controlled for. Middle-class parents had higher performance expectations for their children than did lower-class parents, and evaluated their sons' performance more carefully. These results suggest that parents can foster the development of achievement motivation in their children by: (a) holding high expectations and evaluating their perfor-

mance carefully, and (b) being involved in the achievement-related activities of their children (see also Katkovsky, Crandall & Preston, 1964, for evidence that parents who value intellectual competence tend to become more involved in their children's achievement activities; and Parke, 1978, for a discussion of how involvement which is contingent on children's responses seems particularly important). The results also suggest that middle-class parents are more likely to hold higher performance expectations and be more involved in achievement activities than are lower class parents. Others have conducted similar studies and obtained quite similar results (Hermans, ter Laak, & Maes, 1972; Rosen, 1959; Smith, 1969).

There is a need for research to assess the home antecedents of children's understanding of success-failure feedback and attributions. Recently, Hess, King, and Holloway (Note 2) showed that parents make attributions differently than do their children; mothers attributed their fifth-grade children's school success more to ability and failure to lack of effort, whereas the children attributed their success more to effort and failure to lack of ability. While these results are intriguing, more work is needed to answer several important questions concerning the home antecedents of children's attributions. For instance, what kinds of attributions do parents give when their children succeed or fail on reading and other achievement tasks, and how does this influence children's own interpretations of success and failure? Do parents' attributions for their children's performance change as children get older? Work addressing these questions would

increase our understanding of parental influences on achievement motivation.

Parental Aspirations, Expectations, and Values

A related literature concerns parents' educational aspirations for their children. It would seem that parents who have confidence in their children's abilities and have high expectations for their performance would have higher educational aspirations for their children. Several studies have examined race and SES differences in parental aspirations for their children. The most common finding is that lower-SES and black parents often have educational aspirations for their children that are as high as those of middle-SES and white parents (Brook, Whiteman, Peisach, & Deutsch, 1974; Dreger & Miller, 1968; Rosen, 1959), though there are exceptions (Bell, 1965). However, black and lower-SES parents' occupational aspirations for their children are usually lower than those of white and middle-SES parents, perhaps reflecting a realistic view of the opportunity structure of society.

Further, while educational aspirations for children are high, black and lower-SES parents often do not expect their children to attain those high goals (Dreger & Miller, 1968; Resnick & Robinson, 1975) and they do not make adequate plans for their children to attain the goals (Wolff, 1966). This discrepancy between aspirations and expectations likely has a number of causes. One could be parental perceptions about schools. Hess and Shipman (1968) interviewed middle- and lower-SES black mothers about their perceptions about school and their aspirations

for their children in school. Lower-SES mothers thought that education was very important, but they viewed school as a place where they had little input or control. For instance, when asked to imagine working with a teacher, the lower-SES mothers described themselves as passive or subservient to the teacher, whereas middle-class mothers described themselves as actively involved and more equal to the teacher (see similar findings in Entwisle & Hayduk, 1978). Lower-SES mothers stressed the importance of obedience when they were asked what they would tell their children as they started school (see also Clausen & Williams, 1963). Middle-class mothers stressed the importance of positive interactions with teachers and other children. These views likely influence the kind of relationships children develop with their teachers. Given this pattern, middle-SES children likely feel more comfortable in the school environment.

Another reason for the discrepancy between aspirations and attainment could be the way lower-SES parents interact with their children in learning situations. Many studies have shown that compared to middle-SES parents, lower-SES parents use less effective teaching strategies (Bee, Van Egereth, Strissguth, Nyman & Leckie, 1969; Brophy, 1970; Hess & Shipman, 1965; Nottelman, Note 3). These studies indicate that lower-SES mothers provide their children with poorer problem-solving strategies, and they tend to "take over" for their children rather than letting them do the task (see Laosa, 1978, 1980, for work suggesting that level of parent education is an important mediating variable here). As Parsons (Note 1) suggests, taking over for their

children could be due to lower-SES parents' lack of confidence in their children's ability to do learning tasks. That lower-SES parents view the school as a distant, rather formidable institution over which they have little control, engage in less effective teaching strategies, and lack confidence in their children's ability does not bode well for their children's school performance.

It seems, then, that lower-SES parents do not provide their children with certain experiences that would help them do well in school, even though the parents value education and want their children to do well in school. This issue of parental values deserves closer scrutiny. Recall that lower-SES parents' occupational aspirations for their children were lower than those of middle-SES parents. Since a primary function of education is preparation for an occupation, perhaps low-SES children place less value on school because they, like their parents, do not set their occupational aspirations as high as middle-class children do (see Wylie, 1979). Recently, Parsons and Goff (1980) argued that achievement values have a strong impact on achievement choices. One aspect of achievement values (called utility value by Parsons and Goff) is the degree to which successfully doing a task contributes to a long-term goal. School probably has less utility value for low-SES students, because school success does not fit into their career plans (see Maehr & Nicholls, 1980, for discussion of tasks that may have greater utility value for low-SES children). Low-SES parents' lower career aspirations for their children perhaps contribute to their children's beliefs that school has less utility value for them.

In summary, parents' involvement in achievement activities, and the value they place on school success, appear to be particularly important contributors to the development of children's achievement motivation. They are also likely to give rise to race and SES differences in achievement orientation. Little work has been done on the home antecedents of attributional processes and there is a clear need for research in this area.

The Home Reading Environment

The studies reviewed in the previous sections show how parents can influence their children's achievement motivation by the ways in which they become involved in their children's achievement activities. Turning to the acquisition of reading skills, more specifically, how do parents become involved to help their children? One way is by providing appropriate reading materials in the home. Research indicates a positive relationship between the number of books in the home and children's reading ability (Sheldon & Carillo, 1952; Lamme & Olmsted, Note 4). Durkin (1966) interviewed mothers whose children learned to read during the preschool years. The mothers frequently referred to the availability of reading materials in the home as an important factor in their children's early acquisition of reading skills.

The influence of material availability likely is mediated by the ways in which parents become involved with those materials. For instance, the extent to which parents model reading activity, read to their children, and otherwise encourage their children to read, should influence whether children become good readers. Ransbury (1973) provided anecdotal evidence from interviews with

children that their parents' attitudes towards reading were an important influence on their own reading attitudes. Several studies have shown that parental involvement in reading to their children and parental provision of reading materials predicts later reading ability (e.g., Bing, 1963; Brezinski, 1964; Dix, Note 5). There is at least one exception to this general finding (Briggs & Elkind, 1977); however, even this study indicated that parents of early readers provided them with more reading materials and took them to the library more. Thus, research points to the importance of having reading-related materials in the home as well as having parents being involved with their children in reading-related activities.

This kind of involvement should have a number of positive influences. From a cognitive perspective, parents who read to their children are increasing their children's reading-relevant skills. From a social-motivational perspective, this involvement communicates that reading is a pleasurable activity, and one that provides children with an opportunity to interact positively with their parents. This sort of pleasurable interaction should motivate children to read more. There is a need for research to test how the cognitive and social benefits associated with parental involvement interact to aid children's acquisition of reading skills.

It is apparent that there are social class differences in children's home reading environments. Briggs and Elkind (1977) noted that parents of early readers were more likely to be in the middle and upper classes than the lower class, and a similar finding was reported by Sutton (1964). Miller (1969) interviewed

mothers about children's pre-reading experiences. In comparison to lower-class mothers, middle-class mothers reported that their children had been read to more, and had more contact with books and other reading-related materials in the home. These kinds of experiences likely provide middle-class children with more positive attitudes towards reading.

Although social class is an important factor, it appears that the home reading environment is actually a better predictor of children's attitudes toward reading than social class membership, per se. For instance, Hansen (1969) measured four aspects of the home reading environment--availability of reading materials in the home, amount of reading done with children, amount of reading guidance and encouragement, and the extent to which parents served as models by engaging in reading. This composite process measure correlated more highly with fourth-grade children's reading attitudes than did a measure of parent SES. Similar findings were reported by Krus and Ruben (Note 6). These findings have important implications for intervention programs. By encouraging reading and by reading to children, it should be possible for low-SES parents to help their children acquire positive attitudes towards reading and improve their reading skills. Indeed, intervention programs which have focused on getting low-SES parents involved in their children's education have been successful in improving children's academic performance (see Chilman, 1973; and Horowitz & Paden, 1973 for reviews).²

There are some limitations of this work that need to be addressed. The first is the use of SES as a descriptive measure.

Recall Hansen's (1969) results that particular aspects of the home reading environment were a better predictor of reading attitudes than was a more general SES measure. A growing set of findings supports the point that particular environmental measures correlate more strongly with children's academic performance than do SES measures (e.g., Bradley, Caldwell & Elardo, 1977; Elardo, Bradley, & Caldwell, 1977; Marjoribanks, 1976; Walberg & Marjoribanks, 1973; Wolff, 1966). The implication here is that a better understanding of why SES differences in achievement exist can only be obtained by looking at particular parent-child interactions in the home. From Bradley et al.'s (1977) work, some of the important factors include the responsiveness of the parent, the kinds of discipline techniques used, the organization of the physical environment, parental involvement, and provision of appropriate play materials. Most of the studies listed above have looked at how such environmental factors relate to performance on tests of general ability. There is a need to conduct such studies with specific reading-related skills as the dependent measures, in order to extend Hansen's (1969) work.

A second limitation is that studies on parent involvement with reading have conceptualized reading in global terms rather than examining component subskills. Certain practices in the home might help children acquire particular skills such as learning the alphabet, whereas other factors may influence processes such as children's reading comprehension. For instance, Hess, Holloway, Price, and Dickson (Note 8) classified reading into a number of component skills, such as attention, decoding, and

knowledge of vocabulary. They also distinguished different kinds of features of the home that influence the acquisition of reading skills, such as parent-child verbal interaction, parental values associated with reading, and availability of reading materials. Hess et al. argued that these different environmental variables likely influence the various component reading skills in specifiable ways.

Hess et al. examined how some of these environmental variables influenced children's ability to decode letters. The environmental variables selected for study were availability of materials related to recognizing letters, verbal eliciting techniques of the mother, and parental emphasis on achievement. Results indicated that parents whose children were good letter decoders had more materials available and tended to make their children respond verbally to a greater extent. Parental "press" for achievement was found to be quite important as well, even more so than some of the particular environmental features. For example, parents who stressed the importance of achievement but provided fewer relevant materials had children who were better decoders than parents low in "press" but who provided more materials. This work could be extended to assess other dependent measures in order to obtain a better understanding of how specific environmental variables influence particular reading skills.

Another limitation of the work on the home reading environment is that the primary focus has been on how mothers influence their children's interest in reading. Fathers' potential influence

has either been neglected, or in some cases fathers have been characterized as having little influence (see Durkin, 1966). However, other evidence suggests that fathers do have an important influence, especially on their sons' cognitive development. Radin's work (Radin, 1972, 1973; Radin & Epstein, 1975, Note 9) indicates that paternal nurturance relates to preschool boys' test score performance. Mutimer, Laughlin, and Powell (1966) found that boys aged eight to twelve who read well preferred to be with their fathers. Gruenebaum, Hurwitz, Prentice, and Sperry (1962) found that elementary-school boys of average intelligence, but one to two years below the achievement test score norm for their age, tended to have poor relationships with their fathers.

Some evidence suggests that father absence contributes greatly to the academic problems of low-SES children. Biller (1974) has reviewed the many studies which show that father-absent lower-class black children score much lower on intelligence tests than father-present lower-class black children. Middle-class father-absent children are not as adversely affected, especially in the verbal skill areas (Carlsmith, 1964; Lessing, Zagorian & Nelson, 1970). Generally, then, this research shows how the achievement of lower-class, father-absent children is adversely affected. Research is needed on how fathers influence children's acquisition of particular reading skills, since previous studies have primarily examined general achievement measures.

Additionally, there is a need to investigate how children's behavior influences their parents' behavior. Socialization is not a unidirectional process of parents shaping their children's behav-

ior; children also have a strong impact on how their parents treat them (Bell, 1968). This bidirectionality of the socialization process has not been investigated in the areas reviewed here. It seems plausible that children who show more interest in reading cause their parents to become more involved in reading activities with them.

Finally, researchers need to integrate the two research traditions we have been reviewing. Presumably the way parents involve themselves in their children's reading activities influences children's motivation to learn to read. Few, if any, studies have assessed how (or whether) parents make attributions for their children's reading performance, the kinds of expectations they have for their children's performance, or their perceptions of their children's reading ability. While some work has begun to look at more specific features of the environment and how those features influence reading, motivational variables have not yet been included in this work. Studies assessing such variables would increase our understanding of how parental involvement influences reading. Further, such work would provide important field tests concerning the role of motivational processes in children's acquisition of reading skills.

In summary, studies of parental involvement suggest that parents greatly influence children's achievement orientation and acquisition of reading skills. Some of the evidence indicates that particular factors in the home are better predictors of children's reading attitudes than general measures of SES. Nonetheless, higher-SES parents are more likely to be involved in the kinds of

activities that promote skills and interest in and positive feelings about reading. Middle-class children are more likely to come to school with the idea that reading is an important activity, they are more likely to be familiar with reading-related materials, and they have been exposed to parental teaching styles that foster school-relevant cognitive skills and motivational styles.

School Influences on Reading

In this section we will examine how motivational and social factors in the school situation influence children's reading skills. Although home factors influence race and SES differences in school attitudes and performance, the school environment certainly is important as well. For instance, studies have shown that there are few differences in self-concept of ability between SES groups early in the school years, but low-SES children's self-concepts of ability decline more quickly than those of their middle-class peers (Bridgeman & Shipman, 1978; Eshel & Klein, 1981). These results suggest that factors in the school environment are contributing to low-SES children's lower self-concepts of ability. In conceptualizing social and motivational influences in school, of particular importance would seem to be children's attitudes toward reading, the teacher-student relationship, the reading materials used in classrooms, and peer influences on achievement. We will discuss how these affect race and SES differences in reading performance, and also how they affect achievement motivation processes.

Children's Attitude Toward Reading

Numerous studies have assessed the relationship between children's reading attitudes and reading performance (see Alexander & Filler, 1976, for a review). Not surprisingly, the results generally show that good readers have more positive attitudes toward reading than poor readers (Askov & Fischbach, 1973; Groff, 1962; Hake, 1969; Kennedy & Halinski, 1978; Shepps & Shepps, 1971; Zimmerman & Allebrand, 1965). Still, the relationships found in most studies are modest, ranging from correlations of .2 to .4. Further, the correlational design of these studies does not allow for any causal assessment of the obtained relationships.

Since black and low-SES children tend to be poorer readers, the results just summarized would suggest that they should be more negative in their attitudes to reading and school. Research assessing this suggestion has produced mixed results. Some studies have shown that lower-SES children do indeed have less positive attitudes toward school than middle- and upper-SES children (Coster, 1958; Yee, 1968), whereas others have not found a relationship (Neale & Proshek, 1967; Heimberger, Note 10). These discrepant results could be due to different measuring techniques, to social desirability demands, or to the different ages of the children in the different studies.

Generally, results of these studies are rather disappointing. What is needed are more sophisticated correlational designs that allow causal inferences to be drawn with more confidence. It would also be more fruitful to investigate specific dimensions of

reading attitudes and motivation to read rather than simply examining the global "attitude towards reading" construct. Some recent work on children's attitudes toward mathematics could serve as an exemplar for future work on children's reading attitudes. Parsons, Adler and Kaczala (1982; see also Parsons, Adler, Futterman, Goff, Kaczala, Meece, & Midgley, 1983) conducted a longitudinal investigation of elementary, junior high, and high school students' attitudes, self-concepts of ability, values, expectations for, and planned participation in mathematics courses. Additionally, they obtained children's perceptions of their parents' beliefs concerning these variables, as well as parents' own beliefs about their children. This study thus goes far beyond assessing a global "attitudes toward math"; instead, variables of theoretical and practical interest were assessed. Parsons et al. identified three clusters of variables which predicted students' plans to enroll in math courses, and showed how parents have different notions about boys' and girls' math ability (because the study dealt with math, a detailed results summary is not presented here). Similar studies of parents' and children's reading attitudes would greatly improve upon previous studies, and perhaps help clarify the results of previous research.

The Teacher-Student Relationship

The way teachers interact with their students exerts a significant influence on students' achievement in reading and motivation to achieve. Although a comprehensive review of the teacher-student interaction literature is beyond the scope of this paper, two aspects are particularly relevant to our focus here,

teacher expectations and the influence teachers have on motivational processes.

Teacher expectations. There is a large literature on the topic of teacher expectations for their students' performance (see Brophy & Good, 1974; Cooper, 1979; and Dusek, 1975, for reviews). In general, research indicates that teachers' perceptions of and expectations about their students are affected by student race and social class (see Brophy & Good, 1974). For instance, Yee (1968) found that teachers expressed more positive attitudes toward middle-class students and Datta, Schaeffer, and Davis (1968) found that teachers described white students more favorably than black students. Cooper, Baron and Lowe (1975) found that teacher trainees, when describing hypothetical middle- and lower-SES students, said the middle-SES students would have higher grades and that their successes would be due more to factors such as their ability and effort. Goodwin and Sanders (Note 11) found that for first-grade pupils, teachers believe that student social class is the most important factor for predicting school success.

What is unclear from these studies is whether teachers are accurate in their perceptions of individual students even though they may hold general negative expectations concerning the academic potential of black and low-SES students. West and Anderson (1976) highlight this point in their review of the teacher expectancy literature. It is quite possible that teachers' expectations are often an outcome or consequences of the child's performance rather than the cause of that performance. Indeed,

results of studies reviewed by West and Anderson (1976) can often be accounted for in terms of student behavior causing teacher expectancy rather than vice-versa. When teachers and students interact together for a period of time, teachers use the information obtained to form expectancies for students rather than letting initial attitudes determine student behavior. When teacher expectancy appears to cause certain student behaviors, it is usually in situations in which students and teachers have little time to interact and get to know one another (Brophy & Good, 1974; West & Anderson, 1976).

Still, teachers could be guilty of a more subtle form of bias, even if their perceptions are data-based. It is an educator's task to go beyond the data given; that is, to expect that a child's behavior can be transformed with appropriate instruction and structuring of the educational environment. The teacher who does not hold this view is failing to construe education as a process that can significantly influence children's development. In this sense, the teacher is failing to decenter from the observable data of the child's present behavior to the possibility of future growth. Thus, it is the teacher's expectations for children's teachability that ultimately is at issue, not just whether teachers perceive children's current behavior in a negative light. Paladry (1969) conducted a study which has some relevance to this point. He compared first-grade reading achievement scores of two different groups of teachers. One group of teachers thought that boys and girls had an equal chance to learn to read. The other group believed that girls learn to read more easily.

Reading achievement scores for the students did not differ in September. However, by May, the group of students whose teachers believed girls learned to read more easily showed significant sex differences favoring girls. There were no sex differences in reading achievement in the other group. This study suggests how teachers' beliefs in children's educability influences children's achievement.

A major limitation of much of the work on teacher expectations discussed above is the failure to assess how such expectations are translated into behavior. Results of studies in which teacher behaviors have been observed indicate that teachers treat students differently for whom they have high versus low expectations; for instance, students whom teachers expect to do well get more praise, are called on to answer questions more, receive more classroom privileges, and are allowed more time to answer questions, (see Brophy & Good, 1970; Good & Brophy, 1977; Good, Cooper & Blakely, 1980; Parson, Kaczala, & Meece, 1982; Weinstein, 1976). Students, too, are aware of differences in teacher treatment of high- and low-achieving children (Weinstein & Middlestadt, 1979).

Since teachers have lower expectations for black and low-SES children, these same behavioral differences in teacher treatment may apply to them, though this contention has not received a direct test. Rubovits and Maehr (1973) found that teacher trainees criticized and ignored black students more than white students, especially when the black students were described as bright. However, this study was done in a laboratory rather

than a classroom setting, and with teacher trainees rather than teachers. Rist (1970), in an observational study, found that teachers grouped kindergarten students based on their SES level, and proceeded to treat the higher-SES children much more favorably. A two-year-follow-up observation showed that the groupings of children were still relatively intact in second grade. Results of this study have to be viewed with some caution, since the classroom observations were informal in nature, and done in only one school. There is a need to assess further whether teacher expectations about different racial and SES groups are translated into specific behaviors that affect how children learn to read.

Teacher influences on children's achievement motivation.

Results of the work just discussed show that teacher expectations are sometimes translated into behavior that influences children's learning. Differential praise and criticism by teachers likely influences children's motivation to achieve. Recall Weiner et al.'s (1971) claim that the kinds of attributions one makes about achievement outcomes depend on the consistency of the successes or failures one experiences. One theme running through the literature is that black and lower-SES children feel less control over their environment and experience more failures in both home and school environments. In an interesting series of experiments, Dweck has investigated the consequences of repeated failure experiences on children's achievement motivation and behavior. Dweck's concern is with learned helplessness, which is the perception that failure cannot be overcome. As Dweck and Goetz

(1978) define it, "learned helplessness in achievement situations exists when an individual perceives the termination of failure to be independent of his responses" (Dweck & Goetz, 1978, p. 157).

Dweck and Repucci (1973) conducted an initial investigation of helplessness with fourth- through sixth-grade children. Children worked on soluble and insoluble problems given by two different experimenters. After several trials with each kind of problem, the experimenter giving insoluble problems began to administer soluble ones. Many children were unable to solve these problems, even though they had received quite similar problems from the other experimenter in earlier trials. These children were showing helplessness in response to initial failure. Using Crandall, Katkovsky, and Crandall's (1965) Intellectual Achievement Responsibility scale, Dweck and Repucci assessed children's attributions for success and failure. Those children who persisted, even though they were failing, emphasized motivational factors like effort as determining the failure outcomes. Those who did not persist emphasized more uncontrollable factors such as ability, or external factors like task difficulty. Hence, these children believed failure was hard to overcome. Finally, girls were more likely than boys to attribute failure to lack of ability.

Butkowsky and Willows (1980) assessed whether poor readers could be characterized as learned helpless about failures on a reading-related task. Good, average and poor reading fifth-grade children were given soluble and insoluble anagrams. In comparison to good and average readers, poor readers had lower initial

expectancies for success, attributed success to external factors and failure to internal factors (especially to lack of ability), and persisted less under failure. Following failure, poor readers' expectations for future success had a greater negative shift than those of the other groups. Thus this study shows that poor readers do exhibit learned helplessness in the face of failure.

There is a need to assess race and SES differences in learned helplessness. It is likely that black and low-SES children experience more criticism in school (e.g., Brophy & Good, 1974; Rubovits & Maehr, 1973), yet it hasn't been determined whether this criticism is directed primarily towards ability or to other aspects of performance. Since these children generally experience more failure in school than their white and middle-class peers, they may be more likely to attribute failure to lack of ability (see Katz, 1967), and thus show helplessness in response to failure. Several observational studies have assessed whether teacher feedback patterns influence children's tendency to exhibit helplessness in response to failure (Blumenfeld, Hamilton, Bossert, Wessels, & Meece, 1982; Dweck, Davidson, Nelson, Enna, 1978; Parsons et al., 1982; see also Fennema, in press, and Parsons, in press, for discussions of whether there are indeed sex differences in learned helplessness). It would be useful to do similar observational research focusing on teacher feedback patterns to black and low-SES children.

What can be done about the problem of learned helplessness? Dweck (1975) showed that training learned helpless children to attribute failure to lack of effort helped them overcome helplessness--the children were more likely to persist when later faced with failure. In contrast, simply providing helpless children with success experiences was not enough to overcome helplessness; when they faced failure again, their performance deteriorated. These results indicate that changing children's attributions about their performance improved their subsequent performance. Similar results have been reported by Andrews and Debus (1978).

On the other hand, attribution re-training may sometimes be insufficient, particularly when children lack skills. Schunk (1981), based on Bandura's (1977a) self-efficacy theory, trained slow-learning students in an attempt to improve their math performance. Children received one of two training programs, or were in a control group. One training program was a modeling program in which children observed an adult do math problems, verbalizing his or her strategy. Children then practiced some problems and received feedback. The other program involved practice on math problems; when children had difficulty, they were told where to look for help in a training manual. Half the children in each training group also received attribution retraining; when they succeeded or failed on some of the practice problems given in training, the experimenter attributed the outcome to effort. Although both training conditions improved children's persistence, accuracy (the modeling condition was especially effective here), and perceived efficacy, there were no differences between the children who received attribution re-training and those who did not in either training group. Thus attribution re-training may not always be the most effective way to improve

children's performance (see also Chapin & Dyck, 1976, and Fowler & Peterson, 1981). This may be particularly true for children who lack critical basic academic skills.

A potential problem with attribution re-training is that if children continue to fail even after the re-training, they may eventually conclude that they lack ability. Covington and Beery (1976) and Covington and Omelich (1979b,c), as well as Kukla (1972, 1978), discuss how the degree of effort expended in a situation is an important indicator of one's ability. Attribution re-training teaches children to try harder; if children continue to do poorly even after this training they may be forced to conclude that they lack ability. Trying hard is therefore risky in potential failure situations. Given that black and low-SES children more often lack specific academic skills, training programs such as Schunk's may be more successful than attribution re-training programs in improving these children's performance and persistence.

Finally, the developmental issues discussed earlier should be considered here. Since young children are not very accurate at judging their abilities, and do not make success-failure attributions with adult logic (Nicholls, 1978; Parsons & Ruble, 1977), failure experiences in the early elementary school years may not influence as strongly children's perceptions of their ability. In support of this, Rholes, Blackwell, Jordan, and Walters (1980) demonstrated that children younger than ten or eleven (the age of children in most of Dweck's work) did not demonstrate learned helplessness in response to failure feedback. Also, Entwisle and

Hayduk (1978) found that working-class children in the first grade who were receiving poor grades in school were very inaccurate in predicting the relationship between their work and their grades, and continued to think that they would do well in school. Thus, even children who have had many failure experiences early on could become better achievers if they are given tasks at which they can succeed, and learn to attribute failure to nonability factors. With Resnick and Robinson (1975), we would suggest that it is vitally important for children to experience as much success as possible during reading instruction, especially those children who are struggling with reading.

Learned helpless children have often been found to be highly anxious (see Dweck, 1975; Hill, 1980). Studies investigating the relationship between children's anxiety and their school performance have found that the correlation between test anxiety and achievement test performance increased across the elementary-school years (see Dusek, 1980; Hill, 1972, 1977, 1980; Hill & Sarason, 1966). This negative relationship is particularly strong on measures of reading achievement, perhaps because of the more independent and comprehension-oriented nature of reading instruction in the later elementary years. Studies have also shown that black and low-SES children tend to be more anxious than their white and middle class peers (Willig, Harnisch, Hill & Maehr, in press; Fyans, Note 12).

Teachers may contribute to student anxiety through their interactions with students; for instance, through excessive criticism. Since black and low-SES children appear to be more

anxious about school than other children, they especially may need more praise and less criticism in order to do well. In support of this point, Brophy and Evertson (1976) reported that most successful teachers of low-SES children motivate them with praise and encouragement (see also Brophy, 1981). Brophy and Evertson contend that lower-SES children can begin to overcome their alienation from school when the school atmosphere is a warm and friendly one. It is important that lower-SES children begin participating, and encouragement helps accomplish this. Similarly, Cooper (1977) showed that when teachers stop criticizing children, those children who were criticized frequently begin to interact more positively with the teachers. The use of encouragement may allow low-SES children to participate in school without feeling threatened, and thus negative anxiety dynamics may be avoided.

How exactly does anxiety interfere with learning and task performance? Many theorists (e.g., Dusek, 1980; Geen, 1980; Sarason, 1972, 1975; Wine, 1971, 1980) believe that anxious persons (both children and adults) divide their attention between the tasks they are doing and their own self-preoccupation with how well they are doing, whereas low-anxious persons tend to stay focused more on the task. Research with children supports this view; studies show that high-anxious children have more difficulty focusing on task-relevant information (Dusek, Kermis, & Mergler, 1975; Dusek, Mergler & Kermis, 1976; Nottleman & Hill, 1977). Perhaps teaching children to focus more on the task at hand would help them improve their performance. Wigfield

(Note 13) showed that children achieved better prose recall in a condition where instructions emphasized concentrating on the task than in a condition which described the task as a test of ability. However, the specially designed set of task-focus instructions were not especially beneficial to high-anxious children, as would be expected from the studies just reviewed.

Recently, much has been written about how important "academic engaged time" and attentiveness are to learning (see Bloom, 1976; Brophy, 1979; Jenkins & Jenkins, 1981; Rosenshine & Berliner, 1978; Rosenshine, Note 14). For instance, Bloom (1976) reviewed studies showing that attentiveness relates positively to school achievement, with correlations ranging from .4 to .5. Other studies have shown that inattention to reading instruction is a good predictor of low reading achievement (Camp & Zimet, 1975; Lambert & Nicoll, 1977; Soli & Devine, 1976). The research on anxiety suggests that some children's problems in attending in school could be due to their anxiety, and thus it is important to reduce anxiety in the classroom in order that high-anxious children can better maintain their attentiveness in the classroom. Hill (1980) provides many suggestions for how schools can be restructured to reduce evaluative pressure and anxiety in testing situations; perhaps similar things could be done to reduce anxiety in classroom learning situations. Direct attentional training could be one way to deal with this problem. A series of studies by Cobb and Hops (Cobb & Hops, 1973; Hops & Cobb, 1974; Walker & Hops, 1976) has shown that training attention skills in first-grade children improved their reading performance, and that this

program was as effective as a direct instructional reading program in improving children's reading.

Reading Materials

Students' involvement in reading is undoubtedly influenced by the kinds of reading materials schools provide. Uninteresting reading primers would cause special problems for children having little prior exposure to reading materials in the home. Research by Asher (1979) assessed whether children's interest in the material they are given relates to race differences in reading comprehension (for complete reviews of this work, including a discussion of methodological issues, see Asher, 1977; 1980). Fifth-grade children's interests were assessed by showing photographic slides representing different topics. About a week later, children received, from a different experimenter, reading passages, three of which corresponded to the child's three highest-rated topics, and three corresponding to the child's three lowest-rated topics. Results indicated that white children comprehended the passages better than black children and that black and white children better comprehended the high-interest than the low-interest material. The performance gap between black and white children's performance was the same on both kinds of materials. Post-reading preference ratings indicated that both black and white children strongly preferred the high- to the low-interest material.

In an earlier study, Asher and Markell (1974) found that boys did as well as girls on high-interest material even though boys did worse than girls on low-interest material. A parallel

finding was hoped for with respect to race differences. Still, it is encouraging that the interest level of the material did have an effect for black children. The passages used in this study were obtained from the Britannica Junior Encyclopedia (1970), a source with rather dry style of prose. Perhaps stronger results would occur with different types of text. Since black children have greater reading problems than white children, providing personally interesting materials may keep them engaged in reading, even if those materials don't immediately lessen the gap in reading achievement. Indeed, Daniels (1971) has provided anecdotal evidence that a steady diet of high-interest material can greatly improve black children's reading performance.

An important question still to be answered is why children better understand high-interest material. One explanation is that interesting material better maintains the reader's attention; that is, the reader is more motivated when presented with high-interest materials. Another explanation is that readers have more knowledge about topics they are interested in, and thus can more easily understand passages about those topics. Research is needed to evaluate these alternatives. Another issue for future research is whether the effects associated with topic interest would be obtained with younger children. Nearly all research on topic interest has been conducted with older elementary-school children, and it would be instructive to do similar work with younger children. Such studies would more clearly indicate how topic interest influences early reading. Furthermore, studies of the long-term effects of a steady diet of high-interest material on

children's reading skills and continuing motivation to read (see Maehr, 1976) are clearly needed.

In concluding this section, it is important to stress that the phrase "high-interest material" describes an interaction between the reader and the material. Material that is fascinating for one child may be dull for another; hence in both research and instruction individualized assessment of children's interests and individualized assignments of material should be done. A related point is that children's interests in topics change, and thus there is a need to monitor interests over the school year. Accurate monitoring of children's interests and the provision of reading materials that children are interested in should increase the amount of time children spend reading.

Peer Influences on Achievement

Children's school performance is influenced by peers as well as teachers and text. Indeed, a salient feature of school is the presence of a large number of age mates. As children enter school, they begin to compare themselves with others to evaluate their own behaviors and attitudes (Campbell, 1964; Ruble, Boggiano, Feldman, & Loebel, 1980; Ruble, Feldman, & Boggiano, 1976; Veroff, 1969). They also come to conform to peer group standards (Berends, 1950), and this tendency seems to increase through the elementary-school years (Constanzo & Shaw, 1966; McDonnell, 1963).

Because peer group influences can be powerful, a child wishing to be accepted may choose not to work as hard in school if the peer group does not value achievement. Coleman's (1960,

1961) research has demonstrated the contribution of the peer group to patterns of achievement. In schools where students valued achievement highly, there was a closer relationship between academic excellence and intelligence than in schools where achievement was less valued. Similarly, studies of educational aspiration have shown that children's and adolescents' aspirations are quite similar to those of their peers, especially valued peers (Haller & Butterworth, 1960; Kardel & Lesser, 1969; McDill & Coleman, 1965; Simpson, 1962).

Because peers influence the extent to which children value academic achievement, it is of concern that low-SES children do not seem to value academic-related activities to the extent middle-class children do (Coster, 1959; Pope, 1953). Other evidence indicates that low-SES children tend to be more conforming (see Hess, 1970), and that the peer group may be especially prominent in forming low-SES children's values. For instance, Psthas (1957) found that low-SES parents showed less concern and exercised less control over their children's activities outside the home. One implication of this finding is that more low-SES children may be influenced to do poorly in school in order to gain acceptance from peers.

One's social status within the peer group also plays a role. Researchers interested in the correlates of popularity have found that children who are intelligent tend to be more popular, and that slow learning children tend to be less popular (Campbell, 1964; Green, Forehand, Beck, & Vosk, 1980; Hartup, 1970; Porterfield & Schlicting, 1961). Children from low-SES

backgrounds also are less likely to be popular (Hartup, 1970; Hess, 1970). Thus low-SES children who are low achievers are likely to be among the least accepted children in the classroom. In response to this, these children may form their own groups, with one characteristic of the group being that little value is placed on achieving in school. McMichael (1980) has provided evidence of this dynamic; boys who were both poor readers and lacked social skills tended to be accepted only by other boys with similar academic and social problems. As McMichael suggests, such groups of children likely become more and more alienated from school.

It appears, then, that the peer group exerts a negative influence on low-SES children's achievement and that strategies are needed for involving low-SES children more in the school situation. One strategy may be to enlist children in the educational process by having them serve as peer tutors. Peer tutoring can be quite effective in improving other children's academic performance (e.g., Jenkins, Mayhall, Peschka & Jenkins, 1974) and both the tutor and the learner make academic and social gains as a result of the tutoring experience (Feldman, Devin-Sheehan, & Allen, 1976). These gains occur in both reading and mathematics, and with children from different SES and racial groups (see Allen, 1976). Thus, involving low-SES children in tutoring programs could increase the value they place on reading and other academic skills. Care should be taken when designing peer tutoring programs, however. In a review of studies on peer tutoring, Hartup (in press) concluded that to be successful,

tutoring programs should use tutors who are several years older than tutees, the tutors should be trained and supervised closely, and intervention should be implemented for a relatively long time.

Conclusions

Specific suggestions for future research have been made throughout this paper. In concluding, we will make several general points concerning future research efforts. Central to this paper is the belief that research on achievement motivation and socialization influences on reading should become more closely integrated. Researchers interested in attributional processes need to look more closely at the antecedents of these processes in the home and school, to learn how and when children and parents make attributions in naturally-occurring situations related to reading. Such research would provide important field tests of the validity of attribution theory. Similarly, researchers interested in how socialization agents influence reading achievement should attend more to processes postulated by achievement motivation theorists to mediate achievement behavior. The work of Parsons and her colleagues on mathematics is a good example of such an approach; similar work needs to be done in reading. This sort of research would further understanding in both areas, and help bridge the gap.

Inquiry is also needed into how particular features of the home and school environments influence the development of reading skills. Research like that of Hess, Elardo, and their colleagues on the home environment is an important first step, as is that of Brophy, Weinstein and others on the school environment.

From such research it will be possible to identify particular features of each environment which may be especially beneficial to children's acquisition of reading skills. Work on particular environmental features would allow researchers to go beyond the more general demographic variables of race or SES in explaining performance differences in reading.

Reference Notes

1. Parsons, J. E. The development of achievement motivation. Report #117, Developmental Psychology Program, University of Michigan, 1981.
2. Hess, R. D., King, D. R., & Holloway, S. D. Causal explanations for high and low performance in school: Some contrasts between parents and children. Paper presented at the biennial meeting of the Society for Research in Child Development, Boston, 1981.
3. Nottleman, E. D. Parent-child interaction and children's achievement-related behavior. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign, 1978.
4. Lamme, L., & Olmsted, D. Family reading habits and children's progress in reading. Paper presented at the annual meeting of the International Reading Association, 1977.
5. Dix, M. Are reading habits of parents related to reading performance of their children? Paper presented at the annual meeting of the National Council of the Teachers of English, 1976.
6. Krus, P. H., & Ruben, R. A. Use of family history data to predict educational functioning from ages 5-7. Paper presented at the annual meeting of the American Educational Research Association, 1974.
7. Schramm, W. Television and the test scores. Paper prepared for the Educational Testing Service, August 1976.
8. Hess, R. O., Holloway, S., Price, G. E., & Dickson, W. P. Family environments and acquisition of reading skills: Toward

- a more precise analysis. Paper presented at the conference on the Family as a Learning Environment, Educational Testing Service, 1979.
9. Radin, N., & Epstein, A. S. Observed paternal behavior and the intellectual functioning of preschool boys. Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, 1975.
 10. Heimberger, M. J. Sartain reading attitudes inventory. Paper presented at the Pennsylvania Educational Research Association, Pittsburgh, April 1970.
 11. Goodwin, W., & Sanders, J. An exploratory study of the effect of selected variables upon teacher expectations of pupil success. Paper presented at the annual meeting of the American Educational Research Association, 1969.
 12. Fyans, L. J. Test anxiety, test comfort, and student achievement test performances. Paper presented at the Educational Testing Service, Princeton, New Jersey, 1979.
 13. Wigfield, A. The influence of task- versus self-focus on children's achievement performance and attributions. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign, 1982.
 14. Rosenshine, B. V. Direct instruction for skill mastery. Paper presented to the School of Education, University of Wisconsin at Milwaukee, April 1979.

References

- Alexander, J. E., & Filler, R. C. Attitudes and reading. Newark, Del.: International Reading Association, 1976.
- Allen, V. L. (Ed.) Children as teachers. New York: Academic Press, 1976.
- Andrews, G. R., & Debus, R. L. Persistence and the causal perception of failure: Modifying cognitive attributions. Journal of Educational Psychology, 1978, 70, 154-166.
- Armor, D. J. The evidence on busing. The Public Interest, 1972 (Serial No. 28), 90-128.
- Asher, S. R. Sex differences in reading achievement. (Reading Education Rep. No. 2) Urbana, IL.: Center for the Study of Reading, 1977. (ERIC Document Reproduction Service No. ED 145 567.)
- Asher, S. R. Influence of topic interest on black children's and white children's reading comprehension. Child Development, 1979, 50, 686-690.
- Asher, S. R. Topic interest and children's reading comprehension. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.), Theoretical issues in reading comprehension. Hillsdale, N.J.: Erlbaum, 1980.
- Asher, S. R., & Markell, R. A. Sex differences in comprehension of high-and low-interest reading material. Journal of Educational Psychology, 1974, 66, 680-687.
- Askov, E. N., & Fischbach, J. W. An investigation of primary pupils' attitudes towards reading. Journal of Experimental Education, 1973, 41, 1-7.

- Athey, I. G. Reading research in the affective domain. In H. Singer & R. B. Ruddell (Eds.), Theoretical models and processes of reading (2nd ed.). Newark, Del.: International Reading Association, 1976.
- Atkinson, J. W. An introduction to motivation. Princeton, N.J.: Van Nostrand, 1964.
- Atkinson, J. W., & Raynor, J. O. Motivation and achievement. Washington, D.C.: Winston, 1974.
- Bandura, A. Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 1977, 84, 191-215. (a)
- Bandura, A. Social learning theory. Englewood Cliffs, N.J.: Prentice Hall, 1977. (b)
- Bee, H. L., Van Egereth, K. F., Streissguth, A. P., Nyman, B. A., & Leckie, M. S. Social class differences in maternal teaching strategies and speech patterns. Developmental Psychology, 1969, 1, 726-734.
- Bell, R. Q. A reinterpretation of the direction of effects in studies of socialization. Psychological Review, 1968, 75, 81-95.
- Bell, R. R. Lower class Negro mothers' aspirations for their children. Social Forces, 1965, 43, 493-500.
- Berends, R. W. The influence of the group on the judgments of children. New York: King's Crown Press, 1950.
- Billier, H. B. Parental and sex-role factors in cognitive and academic functioning. In J. K. Cole & R. Dienstbier (Eds.), Nebraska symposium on motivation (Vol. 21). Lincoln: University of Nebraska Press, 1974.

- Bing, E. Effect of childrearing practices on development of differential cognitive abilities. Child Development, 1963, 34, 631-648.
- Bloom, B. S. Human characteristics and school learning. New York: McGraw-Hill, 1976.
- Blumenfeld, P., Hamilton, V. L., Bossert, S. T., Wessels, K., & Meece, J. Teacher talk and student thought: Socialization into the student role. In J. M. Levine & M. C. Wang (Eds.), Teacher and student perceptions: Implications for teaching. Hillsdale, N.J.: Erlbaum, 1982.
- Blumenfeld, P. C., Pintrich, P. R., Meece, J., & Wessels, K. The formation and role of self-perceptions of ability in elementary classrooms. Elementary School Journal, 1982, 82, 401-420.
- Bradley, R., Caldwell, B. M., & Elrado, R. Home environment, social status, and mental test performance. Journal of Educational Psychology, 1977, 69, 697-701.
- Brezinski, J. E. Beginning reading in Denver. The Reading Teacher, 1964, 18, 16-21.
- Bridgeman, B., & Shipman, V. C. Preschool measures of self-esteem and achievement motivation as predictors of third-grade achievement. Journal of Educational Psychology, 1978, 70, 17-28.
- Briggs, C., & Elkind, D. Characteristics of early readers. Perceptual and Motor Skills, 1977, 14, 1231-1237.
- Britannica Junior Encyclopedia. Chicago: Encyclopedia Britannica, 1970.

- Brook, J. S., Whiteman, M., Peisach, E., & Deutsch, M. Aspiration levels of and for children: Age, sex, race and socioeconomic correlates. Journal of Genetic Psychology, 1974, 124, 3-16.
- Brophy, J. Mothers as teachers of their own preschool children: The influence of socioeconomic status and task structure on teaching specificity. Child Development, 1970, 41, 79-94.
- Brophy, J. Teacher behavior and its effects. Journal of Educational Psychology, 1979, 71, 733-750.
- Brophy, J. Teacher praise: A functional analysis. Review of Educational Research, 1981, 51, 5-32.
- Brophy, J., & Evertson, L. M. Learning from teaching: A development perspective. Boston: Allyn & Bacon, 1976.
- Brophy, J., & Good, T. C. Teachers' communications of differential expectations for children's classroom performance: Some behavioral data. Journal of Educational Psychology, 1970, 61, 365-374.
- Brophy, J., & Good, T. L. Teacher-student relationships. New York: Holt, 1974.
- Burt, C. The unstable child. Child Study, 1917, 10, 61-79.
- Butkowsky, I. S., & Willows, D. M. Cognitive-motivational characteristics of children varying in reading ability: Evidence for learned helplessness in poor readers. Journal of Educational Psychology, 1980, 72, 408-422.
- Camp, B. W., & Zimet, S. G. Classroom behavior during reading instruction. Exceptional Children, 1975, 42, 109-110.

- Campbell, J. D. Peer relations in childhood. In M. L. Hoffman & L. W. Hoffman (Eds.), Review of child development research (Vol. 1). New York: Russell Sage Foundation, 1964.
- Carlsmith, L. Effects of early father absence on scholastic aptitude. Harvard Educational Review, 1964, 34, 3-21.
- Chapin, M. & Dyck, D. C. Persistence in children's reading behavior as a function of N length and attribution retraining. Journal of Abnormal Psychology, 1976, 85, 511-515.
- Chilman, C. S. Programs for disadvantaged parents: Some major trends and related research. In B. M. Caldwell & H. N. Ricciuti (Eds.), Review of Child Development Research (Vol. 3). Chicago: University of Chicago Press, 1973.
- Clausen, J. A., & Williams, J. R. Sociological correlates of child behavior. In H. W. Stevenson (Ed.) Child psychology. Chicago: University of Chicago Press, 1963.
- Cobb, J. A., & Hops, H. Effects of academic survival skill training on low-achieving first graders. Journal of Educational Psychology, 1973, 67, 108-113.
- Coleman, J. S. The adolescent subculture and academic achievement. American Journal of Sociology, 1960, 65, 337-347.
- Coleman, J. S. The adolescent society. Glencoe, Ill.: The Free Press, 1961.
- Coleman, J. S. et al. Equality of educational opportunity. U.S. Dept. of Health, Education and Welfare. Washington, D.C.: U.S. Government Printing Office, 1966.

- Constanzo, P. R., & Shaw, M. E. Conformity as a function of age level. Child Development, 1966, 37, 967-975.
- Cooper, H. M. Controlling personal rewards: Professional teachers' differential use of feedback and the effects of feedback on the student's motivation to perform. Journal of Educational Psychology, 1977, 69, 419-427.
- Cooper, H. M. Pygmalion grows up: A model for teacher expectation communication and performance. Review of Educational Research, 1979, 49, 389-410.
- Cooper, H. M., Baron, R. M., & Lowe, C. A. The importance of race and social class information in the formation of expectancies about academic performance. Journal of Educational Psychology, 1975, 67, 312-319.
- Coster, J. K. Attitudes toward school of high school pupils from three income levels. Journal of Educational Psychology, 1958, 49, 51-66.
- Coster, J. K. Some characteristics of high school pupils from three income groups. Journal of Educational Psychology, 1959, 50, 55-62.
- Covington, M. V., & Beery, R. Self-worth and school learning. New York: Holt, Rinehart & Winston, 1976.
- Covington, M. V., & Omelich, C. L. Are causal attributions really causal? A path analysis of the cognitive model of achievement motivation. Journal of Personality and School Psychology, 1979, 37, 1487-1502. (a)
- Covington, M. V., & Omelich, C. L. Effort: The double-edged sword in school achievement. Journal of Educational Psychology, 1979, 71, 169-182. (b)

- Covington, M. V., & Omelich, C. L. It's best to be able and virtuous too: Student and teacher evaluative responses to successful effort. Journal of Educational Psychology, 1979, 71, 169-182. (c)
- Crandall, V. C., Katkovsky, W. A., & Crandall, V. J. Children's beliefs in their own control of reinforcement in intellectual-academic situations. Child Development, 1965, 36, 91-109.
- Daniels, S. How 2 gerbils, 20 goldfish, 200 games, 2000 books and I taught them how to read. Philadelphia: Westminster Press, 1971.
- Datta, L., Schaeffer, E., & Davis, M. Sex and scholastic aptitude as variables in teachers' ratings of the adjustment and classroom behavior of Negro and other seventh-grade students. Journal of Educational Psychology, 1968, 59, 94-101.
- Davie, R., Butler, M., & Goldstein, H. From birth to seven. London: Longman, 1972.
- Douglas, J. The home and the school. London: MacGibbon & Kee, 1964.
- Dreger, R. M., & Miller, K. S. Comparative psychological studies of Negroes and whites in the U.S.: 1959-1965. Psychological Bulletin, 1968, 70 (No. 3, part 2), 1-58.
- Durkin, D. R. Children who read early. New York: Teachers College Press, 1966.
- Dusek, J. B. Do teachers bias children's learning. Review of Educational Research, 1975, 45, 661-684.

- Dusek, J. B. The development of test anxiety in children. In I. G. Sarason (Ed.), Test anxiety: Theory, research and applications. Hillsdale, N.J.: Erlbaum, 1980.
- Dusek, J. B., Kermis, M. A., & Mergler, N. C. Information processing in low- and high-test anxious children as a function of grade level and verbal labeling. Developmental Psychology, 1975, 11, 651-652.
- Dusek, J. B., Mergler, N. L., & Kermis, M. D. Attention, encoding, and information processing in low- and high-test anxious children. Child Development, 1976, 47, 201-207.
- Dweck, C. S. The role of expectations and attributions in the alleviation of learned helplessness. Journal of Personality and Social Psychology, 1975, 11, 674-685.
- Dweck, C. S., Davidson, W., Nelson, S., & Enna, B. Sex differences in learned helplessness: (II) The contingencies of evaluative feedback in the classroom and (III) An experimental analysis. Developmental Psychology, 1978, 14, 268-276.
- Dweck, C. S., & Goetz, T. E. Attributions and learned helplessness. In J. H. Harvey, W. I. Ickes, & R. F. Kidd (Eds.), New directions in attribution research (Vol. 2). Hillsdale, N.J.: Erlbaum, 1978.
- Dweck, C. S., & Repucci, N. D. Learned helplessness and reinforcement responsibility in children. Journal of Personality and Social Psychology, 1973, 25, 109-116.
- Dyer, H. S. School factors and equal educational opportunity. Harvard Educational Review, 1968, 38, 38-56.

- Eccles, J. & Wigfield, A. Teacher expectations and student motivation. In J. B. Dusek (Ed.), Teacher expectancies. Hillsdale, N.J.: Erlbaum, in press.
- Elardo, R., Bradley, R., & Caldwell, B. M. A longitudinal study of the relationship of infant's home environments to language development at age 3. Child Development, 1977, 48, 595-603.
- Entwisle, D. R. The child's social environment and learning to read. In Reading research: Advances in theory and practice (Vol. 1). New York: Academic Press, 1979.
- Entwisle, D. R., & Hayduk, I. A. Too great expectations: The academic outlook of young children. Baltimore: Johns Hopkins University Press, 1978.
- Eshel, Y., & Klein, Z. Development of academic self-concept of lower-class and middle-class primary school children. Journal of Educational Psychology, 1981, 73, 187-193.
- Feldman, R. S., Devin-Sheehan, L., & Allen, V. L. Children tutoring children: A critical review of research. In V. L. Allen (Ed.), Children as teachers. New York: Academic Press, 1976.
- Fennema, E. Attribution theory and achievement in mathematics. In S. R. Yussen (Ed.), The development of reflection. New York: Academic Press, in press.
- Fontaine, G. Social comparison and some determinants of expected personal control and expected performance in a novel task situation. Journal of Personality and Social Psychology, 1974, 29, 487-496.

- Fowler, J. W., & Peterson, D. L. Increasing reading persistence and altering attributional style of learned helpless children. Journal of Educational Psychology, 1981, 73, 251-260.
- Friend, R. N., & Neale, J. M. Children's perceptions of success and failure: An attributional analysis of the effects of race and social class. Development Psychology, 1972, 7, 124-128.
- Frieze, I. H., & Snyder, H. N. Children's beliefs about the causes of success and failure in school settings. Journal of Educational Psychology, 1980, 72, 186-196.
- Geen, R. G. Test anxiety and cue utilization. In I. G. Sarason (Ed.), Test anxiety: Theory, research and applications. Hillsdale, N.J.: Erlbaum, 1980.
- Good, T. L., & Brophy, J. Educational psychology: A realistic approach. New York: Holt, Rinehart, Winston, 1977.
- Good, T. L., Cooper, H., & Blakely, S. C. Classroom interaction as a function of teacher expectations, student sex, and time of year. Journal of Educational Psychology, 1980, 72, 378-385.
- Green, K. D., Forehand, R., Beck, S. J., & Vosk, B. An assessment of the relationship among measures of children's social competence and children's academic achievement. Child Development, 1980, 51, 1149-1156.
- Groff, P. J. Children's attitudes toward reading and their critical reading abilities in four content-type materials. Journal of Educational Research, 1962, 55, 313-317.

- Gruenebaum, M. G., Hurwitz, I., Prentice, N. M., & Sperry, B. M. Fathers of sons with primary neurotic learning inhibition. American Journal of Orthopsychiatry, 1962, 32, 462-473.
- Hake, J. M. Covert motivations of good and poor readers. The Reading Teacher, 1969, 22, 731-738.
- Haller, A. O., & Butterworth, C. E. Peer influence on levels of occupation and educational aspiration. Social Forces, 1960, 38, 289-295.
- Hansen, H. S. The impact of the home literary environment on reading attitude. Elementary English, 1969, 46, 17-24.
- Hartup, W. W. Peer interaction and social organization. In P. H. Mussen (Ed.), Carmichael's manual of child psychology (Vol. 2). New York: John Wiley and Sons, 1970.
- Hartup, W. W. The peer system. In P. H. Mussen (Ed.), Handbook of child psychology (Vol. 4). New York: Wiley, in press.
- Heckhausen, H. The development of achievement motivation. In W. W. Hartup (Ed.), Review of child development research (Vol. 6). Chicago: University of Chicago Press, 1982.
- Hermans, H. J. M., ter Laak, J. J. F., & Maes, P. C. J. M. Achievement motivation and fear of failure in family and school. Developmental Psychology, 1972, 6, 520-528.
- Hess, R. D. Social class and ethnic influences upon socialization. In P. H. Mussen (Eds.), Carmichael's manual of child psychology (Vol. 2). New York: Wiley, 1970.

- Hess, R. D., & Shipman, V. C. Early experience and the socialization of cognitive modes in children. Child Development, 1965, 36, 369-386.
- Hess, R. D., & Shipman, V. C. Maternal attitudes toward the school and the role of the pupil: Some social class comparisons. In A. H. Passow (Ed.), Developing programs for the educationally disadvantaged. New York: Teachers College, Press, 1968.
- Hill, K. T. Anxiety in the evaluative context. In W. W. Hartup (Ed.), The young child (Vol. 2). Washington, D.C.: National Association of the Education of Young Children, 1972.
- Hill, K. T. The relation of evaluative practices to test anxiety and achievement motivation. UCLA Educator, 1977, 19, 15-21.
- Hill, K. T. Motivation, evaluation and educational testing policy. In L. J. Fyans, Jr., (Ed.), Achievement motivation: Recent trends in theory and research. New York: Plenum, 1980.
- Hill, K. T., & Sarason, S. B. The relation of test anxiety and defensiveness to test and school performance over the elementary school years. Monographs of the Society for Research in Child Development, 1966, 31 (Serial No. 104).
- Hops, H., & Cobb, J. A. Initial investigation into academic survival skill training, direct instruction, and first grade achievement. Journal of Educational Psychology, 1974, 66, 548-553.

- Horowitz, F. D., & Paden, L. Y. The effectiveness of environmental intervention programs. In B. M. Caldwell & H. N. Ricciuti (Eds.), Review of child development research (Vol. 3). Chicago: University of Chicago Press, 1973.
- Ickes, W., & Layden, M. A. Attributional styles. In J. H. Harvey, W. Ickes, & R. F. Kidd (Eds.), New directions in attribution research (Vol. 2). Hillsdale, N.J.: Erlbaum, 1978.
- Jencks, C. Inequality: A reassessment of the effects of family and schooling in America. New York: Basic Books, 1972.
- Jenkins, J. R., & Jenkins, L. M. Cross-age and peer tutoring: Help for children with learning problems. Reston, Virginia: Council for Exceptional Children, 1981.
- Jenkins, J. R., Mayha., W. F., Peschka, C. M., & Jenkins, L. M. Comparing small group and tutorial instruction in resource rooms. Exceptional Children, 1974, 40, 245-250.
- Karabenick, J. D., & Heller, K. A. A developmental study of effort and ability attributions. Developmental Psychology, 1976, 12, 559-560.
- Kardel, D. B., & Lesser, G. S. Parental and peer influence in college plans of adolescents. American Sociological Review, 1969, 34, 213-223.
- Katkovsky, W. A., Crandall, V. C., & Preston, A. Parent attitudes toward their personal achievements and toward the achievement behavior of their children. Journal of Genetic Psychology, 1964, 104, 67-82.

- Katz, I. The socialization of academic motivation in minority group children. In D. Levine (Ed.), Nebraska symposium on motivation (Vol. 15). Lincoln: University of Nebraska Press, 1967.
- Kenneday, L. D., & Halinski, R. S. Measuring attitudes: An extra dimension. Journal of Reading, 1978, 18, 518-522.
- Kukla, A. Foundations of an attributional theory of performance. Psychological Review, 1972, 79, 454-470.
- Kukla, A. An attributional theory of choice. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 11). New York: Academic Press, 1978.
- Kun, A. Development of the magnitude-covariation and compensation schemata in ability and effort attributions of performance. Child Development, 1977, 48, 862-873.
- Ladd, M. R. The relation of social, economic, and personal characteristics to reading ability. New York: Columbia University Press, 1933.
- Lambert, N. M., & Nicoll, R. G. Conceptual model for nonintellectual behavior and its relationship to reading achievement. Journal of Educational Psychology, 1977, 69, 481-496.
- Laosa, L. M. Maternal teaching strategies in Chicano families of varied educational and socioeconomic levels. Child Development, 1978, 49, 1129-1135.
- Laosa, L. M. Maternal teaching strategies in Chicano and Anglo-American families: The influence of culture and education on maternal behavior. Child Development, 1980, 51, 759-765.

- Lessing, E. E., Zagorin, S. W., & Nelson, D. WISC subtest and IQ score correlates of father absence. Journal of Genetic Psychology, 1970, 67, 181-195.
- McDill, E. L., & Coleman, J. S. Family and peer influence in college plans of high school students. Sociology of Education, 1965, 38, 112-116.
- McDonnell, T. R. Suggestibility in children as a function of chronological age. Journal of Abnormal and Social Psychology, 1963, 67, 286-289.
- McLelland, D. C. The achieving society. New York: The Free Press, 1961.
- McLelland, D. C., Atkinson, J. W., Clark, R. W., & Cewell, E. L. The achievement motive. New York: Appleton-Century Crofts, 1953.
- McMahon, I. D. Relationships between causal attributions and expectancy of success. Journal of Personality and Social Psychology, 1973, 28, 108-114.
- McMichael, P. Reading difficulties, behavior and social status. Journal of Educational Psychology, 1980, 72, 76-86.
- Maehr, M. L. Continuing motivation: An analysis of a seldom considered educational outcome. Review of Educational Research, 1976, 46, 443-462.
- Marjoribanks, K. Environment, social class, and mental ability. Journal of Educational Psychology, 1976, 63, 103-109.
- Matthewson, G. C. The function of attitude in the reading process. In H. Singer & R. B. Ruddell (Eds.), Theoretical models and processes of reading (2nd ed.). Newark, Del.: International Reading Association, 1976.

- Miller, W. H. Home prereading experiences and first grade reading achievement. The Reading Teacher, 1969, 22, 641-645.
- Murray, S. R., & Mednick, M. T. S. Perceiving the causes of success and failure in achievement: Sex, race and motivational comparisons. Journal of Consulting and Clinical Psychology, 1975, 43, 881-885.
- Mutimer, D., Laughlin, L. & Powell, M. Some differences in the family relationships of achieving and underachieving readers. Journal of Genetic Psychology, 1966, 109, 67-74.
- Neale, D. C., & Proshok, J. M. School-related attitudes of culturally disadvantaged elementary school children. Journal of Educational Psychology, 1967, 58, 238-244.
- Nicholls, J. G. The development of the concepts of effort and ability, perception of academic attainment, and the understanding that difficult tasks require more ability. Child Development, 1978, 49, 800-814.
- Nicholls, J. G. Development of perception of own attainment and causal attributions for success and failure in reading. Journal of Educational Psychology, 1979, 71, 84-100.
- Nicholls, J. G. The development of the concept of difficulty. Merrill-Palmer Quarterly, 1980, 26, 271-281.
- Nottleman, E. D., & Hill, K. T. Test anxiety and off-task behavior in evaluative situations. Child Development, 1977, 48, 225-231.
- Paladry, J. M. What teachers believe, what children achieve. Elementary School Journal, 1969, 69, 370-374.

- Parke, R. D. Children's home environments: Social and cognitive effects. In I. Altman, & J. F. Wohlwill (Eds.), Children's environments (Vol. 3). New York: Plenum, 1978.
- Parsons, J. E. Attributions, learned helplessness, and sex differences in achievement. In S. R. Yussen (Ed.), The development of reflection. New York: Academic Press, in press.
- Parsons, J. E., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, C., & Midgley, C. Expectancies, values and academic behaviors. To appear in J. T. Spence (Ed.), Assessing Achievement. San Francisco: W. H. Freeman, 1983.
- Parsons, J. E., Adler, T. F., & Kaczala, C. M. Socialization of achievement attitudes and beliefs: Parental influences. Child Development, 1982, 53, 310-321.
- Parsons, J. E., & Goff, S. B. Achievement motivation and values: An alternative perspective. In L. J. Fyans (Ed.), Achievement motivation: Recent trends in theory and research. New York: Plenum Press, 1980.
- Parsons, J. E., Kaczala, C. M., & Meece, J. L. Socialization of achievement attitudes and beliefs: Classroom influences. Child Development, 1982, 53, 322-339.
- Parsons, J. E., & Ruble, D. N. The development of achievement-related expectancies. Child Development, 1977, 48, 1075-1079.
- Pope, B. Socio-economic contrasts in children's peer culture prestige values. Genetic Psychology Monographs, 1953, 48, 157-220.

- Porterfield, O. V., & Schlichting, H. F. Peer status and reading achievement. Journal of Educational Research, 1961, 54, 291-297.
- Psthas, G. Ethnicity, social class and adolescent independence from parental control. American Sociological Review, 1957, 22, 415-423.
- Purkey, W. W. Self-concept and school achievement. Englewood Cliffs, N.J.: Prentice-Hall, 1970.
- Radin, N. Father-child interaction and the intellectual functioning of four-year-old boys. Developmental Psychology, 1972, 6, 353-361.
- Radin, N. Observed paternal behaviors as antecedents of intellectual functioning in young boys. Developmental Psychology, 1973, 8, 369-376.
- Ransbury, M. K. An assessment of reading attitudes. Journal of Reading, 1973, 17, 25-28.
- Resnick, L. B., & Robinson, B. H. Motivational aspects of the literacy problem. In J. B. Carroll (Ed.), Towards a literate society. New York: McGraw-Hill, 1975.
- Rholes, W. S., Blackwell, J., Jordan, C., & Walters, C. A developmental study of learned helplessness. Developmental Psychology, 1980, 16, 616-624.
- Rist, R. C. Student social class and teacher expectations. Harvard Educational Review, 1970, 40, 411-451.
- Robinson, J. P. Television's impact on everyday life: Some cross-national evidence. In Television and social behavior (Vol. 4). Washington, D.C.: U.S. Government Printing Office, 1971.

- Rosen, B. C. Race, ethnicity and the achievement syndrome. American Sociological Review, 1959, 24, 47-60.
- Rosen, B. C., & d'Andrade, R. The psychosocial origins of achievement motivation. Sociometry, 1959, 22, 185-218.
- Rosenshine, B. V., & Berliner, D. C. Academic engaged time. British Journal of Teacher Education, 1978, 4, 3-16.
- Rotter, J. B. Social learning and clinical psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1954.
- Rotter, J. B. Generalized expectancies for internal versus external control of reinforcements. Psychological Monographs, 1966, 80, (1, Whole No. 609), 1-28.
- Ruble, D. N., Boggiano, A. K., Feldman, N. S., & Loebel, J. H. A developmental analysis of the role of social comparison in self-evaluation. Developmental Psychology, 1980, 16, 105-115.
- Ruble, D. N., Feldman, N. S., & Boggiano, A. K. Social comparison between young children in achievement situations. Developmental Psychology, 1976, 12, 192-197.
- Rubovits, P., & Maehr, M. L. Pygmalion in black and white. Journal of Personality and Social Psychology, 1973, 25, 210-218.
- St. John, N. H. Desegregation and minority group performance. Review of Educational Research, 1970, 40, 111-134.
- Sarason, I. G. Experimental approaches to test anxiety: Attention and the uses of information. In C. D. Spielberger (Ed.), Anxiety: Current trends in theory and research (Vol. 2). New York: Academic Press, 1972.

- Sarason, I. G. Test anxiety, attention and the general problem of anxiety. In C. D. Spielberger & I. G. Sarason (Eds.), Stress and anxiety (Vol. I). Washington, D.C.: Hemisphere, 1975.
- Schunk, D. H. Modeling and attribution effects on children's achievement: A self-efficacy analysis. Journal of Educational Psychology, 1981, 73, 93-105.
- Shea, R. M. Schooling and its antecedents: Substantive and methodological issues in the status attainment process. Review of Educational Research, 1976, 46, 463-526.
- Sheldon, W. D., & Carrillo, R. Relation of parent, home and certain developmental characteristics to children's reading ability. Elementary School Journal, 1952, 52, 262-270.
- Shepps, F. P., & Shepps, R. R. Relationship of study habits and school attitudes to achievement in mathematics and reading. Journal of Educational Research, 1971, 65, 71-73.
- Simpson, R. L. Parental influence, anticipatory socialization and social mobility. American Sociological Review, 1962, 27, 517-552.
- Singer, H., Gerard, H. B., & Redfearn, D. Achievement. In H. B. Gerard & N. Miller (Eds.), School desegregation. New York: Plenum, 1975.
- Smith, C. P. Achievement-related motives in children. New York: Russell Sage Foundation, 1969.
- Sohn, D. Affect-generating powers of effort and ability self attributions of academic success and failure. Journal of Educational Psychology, 1977, 69, 500-505.

- Soli, S. D., & Devine, V. T. Behavioral correlates of achievement: A look at high and low achievers. Journal of Educational Psychology, 1976, 68, 335-341.
- Stein, A. H., & Friedrich, L. K. Impact of television on children and youth. In E. M. Hetherington (Ed.), Review of child development research (Vol. 5). Chicago: University of Chicago Press, 1975.
- Sutton, M. H. Readiness for reading at the kindergarten level. The Reading Teacher, 1964, 17, 235-240.
- Valle, V. A., & Frieze, I. H. Stability of causal attributions as a mediator in changing expectations for success. Journal of Personality and Social Psychology, 1976, 33, 579-587.
- Veroff, J. Social comparison and the development of achievement motivation. In C. P. Smith (Ed.) Achievement-related motives in children. New York: Russell Sage Foundation, 1969.
- Walberg, H. J., & Marjoribanks, K. Differential mental abilities and home environments: A canonical analysis. Developmental Psychology, 1973, 9, 363-368.
- Walker, H. M., & Hops, H. Increasing academic achievement by reinforcing direct academic performance and/or facilitative non-academic response. Journal of Educational Psychology, 1976, 68, 218-225.
- Wattenberg, W. W., & Clifford, C. Relation of self-concepts to beginning achievement in reading. Child Development, 1964, 35, 461-467.

- Weiner, B. Theories of motivation. Chicago: Markham, 1972.
- Weiner, B. Achievement motivation and attribution theory. Morristown, N.J.: General Learning Press, 1974.
- Weiner, B. A theory of motivation for some classroom experiences. Journal of Educational Psychology, 1979, 71, 3-25.
- Weiner, B., Frieze, I., Kukla, A., Reed, A., Rest, S., & Rosenbaum, L. M. Perceiving the causes of success and failure. Morristown, N.J.: General Learning Corporation, 1971.
- Weiner, B., & Kukla, A. An attributional analysis of achievement motivation. Journal of Personality and Social Psychology, 1970, 15, 1-20.
- Weiner, B., Nierenberg, R., & Goldstein, M. Social learning (locus of control) versus attributional (causal stability) interpretations of expectancy of success. Journal of Personality, 1976, 44, 52-68.
- Weinstein, R. Reading group membership in first grade: Teacher behaviors and pupil experience over time. Journal of Educational Psychology, 1976, 68, 103-116.
- Weinstein, R., & Middlestadt, S. E. Student perceptions of teacher interactions with male high and low achievers. Journal of Educational Psychology, 1979, 71, 421-431.
- West, C. K., & Anderson, T. H. The question of preponderant causation in teacher expectation research. Review of Educational Research, 1976, 46, 613-630.

- Willig, A. C., Harnisch, D. L., Hill, K. T., & Maehr, M. L. Sociocultural and educational correlates of success-failure attributions and evaluation anxiety in the school setting for Black, Hispanic and Anglo children. American Educational Research Journal, in press.
- Wine, J. D. Test anxiety and the direction of attention. Psychological Bulletin, 1971, 76, 97-104.
- Wine, J. D. Cognitive-attentional theory of test anxiety. In I. G. Sarason (Ed.), Test anxiety: Theory, research and applications. Hillsdale, N.J.: Erlbaum, 1980.
- Winterbottom, M. R. The relation of need for achievement to learning experiences in independence and mastery. In J. W. Atkinson (Ed.), Motives in fantasy, action, and society. Princeton, N.J.: Van Nostrand, 1958.
- Wolff, R. The measurement of environment. In A. Anastasi (Ed.), Testing problems in perspective. Washington, D.C.: American Council on Education, 1966.
- Wylie, R. S. The self-concept: Theory and research on selected topics. Lincoln, Neb.: University of Nebraska Press, 1979.
- Yee, A. Interpersonal attitudes of teachers and advantaged and disadvantaged pupils. Journal of Human Resources, 1968, 3, 327-345.
- Zimmerman, I. L., & Allebrand, G. N. Personality characteristics and attitudes toward achievement of good and poor readers. Journal of Educational Research, 1965, 59, 28-31.

Footnotes

¹Weiner (1979) has added some additional causal factors to his model. These are not central to the points we will make about Weiner's view, and thus we will not discuss them here.

²One of the beneficial side effects of greater parental involvement in reading-related activities with children is that as a result of such involvement parents likely control things in the home that if left uncontrolled might have a negative influence on the acquisition of reading skills. An example is excessive television viewing. Several studies (e.g., Robinson, 1971; Stein & Friedrich, 1975; and Schramm, Note 7) have shown that high rates of television viewing have a negative influence on the development of reading skills.

This page is intentionally blank.

