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ABSTRACT

Parental control of children's academic performance is discussed in terms of two perspectives in social psychology: behavioral modification and symbolic interactionism. A synthesis of the two approaches provides a multiple view of self-conceptual behavior, in which self-concept is considered a social psychological concept subject to variation across time and situations. This study dealt with fifth- and sixth-graders' verbalizations about their abilities and competencies associated with their roles as students. Self-report categories consisted of nine variables derived from the behavioral modification and symbolic interactional treatments of parental control. Child-parent pairs (N=120) from four communities served as subjects. Children's self-conceptualizations were assessed using the Michigan State Self Concept of Abilities Scale; parental behavior was assessed directly through interviews. Analysis of results indicated further empirical support for the notion that parents' evaluations are crucial in shaping children's self-conceptualizing behaviors with regard to their competence as students. The magnitude of all measured associations, however, was moderate to weak. Discussion of results concerned strategies to increase parental effectiveness in positively affecting children's academic attitudes and behavior. (DP)

PARENTAL VARIABLES AS PREDICTORS OF STUDENT SELF-CONCEPTIONS OF ABILITY

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Precisely how parents affect the academic lives of their children remains an issue within the social scientific study of the family and learning. In this paper, we are concerned with strategies for increasing the effectiveness of parents as they have an impact upon their child's academic performance levels. The specific problem concerns isolating which of the many contingencies available to parents are most relevant to the student's self-concept of academic ability. Two theoretical perspectives are brought to bear on the problem: behavioral modification and symbolic interactionism.

Behavioral Modification Perspective

Several social scientific perspectives carry implications for the study of parental influences upon student self-evaluations. Within contemporary psychology, the behavioral modification viewpoint offers certain contributions to this issue. While some strictly behaviorally oriented psychologists would contend that self-concept is a construct of little scientific value in terms of predicting or controlling behavior, some prominent behavioral modification scholars suggest that assessments of something called self are important. Even as B. F. Skinner seems to argue for the dismissal of self from our conceptual arsenal, he is more accurately interpreted as calling for a re-definition of self as a social scientific concept:

> We may quarrel with any analysis which appeals to a self or personality as an inner determiner of action, but the facts which have been represented with such devices cannot be ignored (Skinner, 1957; 284).

In defining self as a "unified system of responses," or as a "mode of action," (Skinner, 1957: 285), he is nonetheless dealing with the concept of self; indeed, his discussions of "self-control" and "self-knowledge" are absurdities in the absense of such a notion (Skinner, 1953: Chapter 15). Another prominent behavioral

modification scholar, Daryl Bem, is similarly dependent upon the conceptual category "self" in his criticisms of cognitive dissonance theory and research (Bem, 1967). Howard Kendler, a "neo-behaviorist," calls for a distinction between "conceptual behavior" and "conceptual processes" (Kendler, 1971). Kendler suggests that:

> The conflict between environmentally based S-R conceptions and cognitive interpretations of behavior represents, in many ways, false dichotomies. . . . In short, single-unit (S-R models) and cognitive control models supplement each other when viewed either within a comparative or a human developmental framework (Kendler, 1971: 972).

While recognizing the importance of certain student self-assessments from a behavioral modification perspective, we are faced with the problem of elucidating the nature of the reinforcement processes involved.

The behavioral modification approach sensitizes us to look at the behavioral sanctions which a parent administers to his or her child consequent to academic performance. Perhaps rewards which a parent provides a child after good school work or punishments directed toward the child after poor performances are types of contingencies which are integral to the behavioral modification paradigm in shaping student academic achievement.

Yet before parents can effectively shape their child's behavior through the administration of rewards and punishments, they must first have reasonably accurate knowledge of the child's academic behavior. When parents cannot be present during their child's academic behavior or should they receive inaccurate cues effective reinforcement of achievement is not probable. The school must provide the parent with discriminitive stimuli in light of which the parent will effectively provide appropriate reinforcement to the child. This suggests that the school must provide communications, and that parents must monitor those communications. In order for efficient implementation of the behavioral modification paradigm, the child's behavior as a student must be public to the parent; in otherwords, parental surveillance is necessary.

In addition, the parent's standards for defining student achievement must to some degree correspond to the criteria employed by the school. If the parent disagrees with the educational institution's values, goals and criteria for defining achievements, and the means of communicating to parents what that student achievement has been, then we can hardly expect parents to organize and reinforce the same educational principles as the school. The extent to which parents and school personnel reinforce the same desired behavior may be a crucial condition affecting of either the school or the family as shapers of student achievement.

Other variables important to the reinforcement process are parental statements regarding their own desires and plans for their child's future. To the extent that a fundamental aspect of parenthood is vicariously experiencing the life of children, the reinforcement patterns exhibited by parents will be closely associated with their aspirations and plans for their child. Re-worded in the behavioral modification rhetoric, certain parental verbalizations (based on the reinforcement history of the parent) come to be paired with sanctions administered to the child. That is, emotional and/or authoritative cues accompanying parental verbalized desires and plans come to be conditioned reinforcers for the child which shape his academic life.

In summary, we have pointed out a list of theoretically relevant parental variables which are implied by a brief assessment of a few behavioral modification principles for affecting parental influence on their children's school achievement. This list includes: parental rewards consequent to "good" academic behaviors; parental punishments consequent to "poor" academic behaviors; parental surveillance over the child's academic behaviors; the salience of the school's definitions of achievement within the parental repertoire of discriminative

stimuli; and parental verbalizations with regard to their educational aspirations and plans for child. We now turn to the discussion of another school of thought within the behavioral sciences.

Symbolic Interactionist Perspective

Another behavioral science perspective sensitizing us to principles of human behavior is included within a tradition commonly referred to as "symbolic interactionism." This perspective, like the behavioral modification paradigm, provides an explanation for how human behavior is influenced. George Herbert Mead, the scholar whose seminal contributions laid the groundwork of symbolic interactionism, entitled this school of thought "social behaviorism" when he was expounding his ideas at the University of Chicago; in fact, in 1899 Mead taught one of the very earliest courses in animal psychology in America (Boring, 1929:564).

The symbolic interactionist perspective has generally viewed the influence of others as stemming from their communicated expectations for social conduct and their impact upon the way the individual defines the situation he is in. This picture of human behavior results from Mead's (1934) line of reasoning which suggests that the central aspect of human communication and the basis of human culture and social organization is man's ability to be aware of the intentions of other men. Our awareness of the intentions and abilities of others, and their awareness of ours, is a basic ingredient in social life which allows men and women to intermesh their behaviors with one another in collective activities. This notion of communicated intentions, then, sensitizes us to seek out the part played by expectations of others as they influence the individual.

Yet there is a conceptual problem in clarifying what precisely we include within the framework of communicated expectations. This is especially important inasmuch as the term "expectations" is employed by several different schools of thought within social science, some of which make different assumptions about

the nature of man.[1]

As traditionally employed, the concept of expectations implies a normative dimension. That is, expectations are communications of appropriate, correct, or "good" behaviors which theoretically transmit to an individual the influence of someone else who is important in his or her life. The denotation of "ought" or "should" is part of the notion of expectations. Within the parent-child relationship, expectations concerning both educational achievement and attainment seem relevant with regard to the parental impact upon the child's assessments of self as student. Communications which define high levels of achievement as "good" or "bad", as well as communications defining few or many years of educational attainment as desirable would be two aspects of parental normative communications which would theoretically influence a child's view of himself as student.

Social psychologists and sociologists have also noted the importance of surveillance as a condition influencing social behavior. For example, Merton (1957: 374) in his use of the term "observability" claimed that ". . . effective social control presupposes an appreciable degree of observability of role behavior." Several other theorists from varying perspectives, such as Mead (1934), Goffman (1959), Kelman (1961), Lindesmith and Straus (1968), and Couch (1970) have emphasized one theoretical importance of phenomena approximating the concept of surveillance. Surveillance from these many perspectives is explicitly or implicitly said to be important for both the person who is attempting to control the actions of others and the person who is the recipient of the expectations of another. In other words, parents must believe that they have some awareness, i.e., sur-

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[1] Explanations of human behavior based on the functionalist perspective within sociology also rely heavily upon the concept of expectations. Yet considerable differences, both philosophic and social scientific, exist between traditional functionalism and symbolic interactionism with regard to the respective views of man and the study of man held by these two schools of thought.

veillance of the behavior of their children if they are to intentionally manipulate their expectations. Thus, once again we are led to a concern with parental surveillance over the child's academic activities as an important variable in explicating the process of parental influence.

The specific form which school achievement is to take is also an important consideration. As noted earlier, if parents place little credibility in the format used by the school to assess and communicate a student's academic achievement, that parent is unlikely to attempt to influence his or her child to behave in accord with the school's standards of achievement. The importance which parents attach to the school's definition of achievement, then, plays an integral part in whether parents will even attempt to structure the child's definition of the situation with regard to school and academic performance, or the child's assessments of his or her own place within the school situation.

Other aspects of parental expectations which are of relevance to pare... influence over student self-definitions, as was noted in our earlier discussion of the theoretical implications of the behavioral modification paradigm, are the desires and plans which parents hold for their children. Analytically distinct from communicated normative expectations per se, parental aspirations and plans for child are verbalizations indicating desired and anticipated futures for the child as student. These reflect parental definitions of the situation and may be crucial conditions affecting parental impact on their child's educational life.

Of perhaps the most crucial importance from the symbolic interactionist perspective, however, are the contributions which parental evaluations of the child's academic performances make to the development of student self-conceptualizing behaviors. One of the early adherents of social behaviorism, Charles Horton Cooley (1909), employed the metaphor of the "looking-glass self" to describe the process whereby our assessments of ourselves are influenced by

our perceptions of how important people in our lives view us. Considerable experimental and survey research, some of which is reviewed below, documents the effects which the evaluations of others has on certain of our self-conceptualizing behaviors. This body of theory and research holds that the crucial basis by which we linguistically define ourselves and our capabilities is the communicated judgments of others who are important to us.

Employing the symbolic interactionist perspective thus results in another list of variables which holds relevance for the study of parental influence over their children as students. These variables are: parental surveillance of child's academic life; normative educational achievement expectations; normative educational attainment expectations; the importance parents attach to the school's definition of achievement; parental attainment aspirations for child; parental attainment plans for child; and parental evaluations of child's academic abilities. Several of these variables also appear in the previous list of variables implied by the behavioral modification paradigm; some do not appear earlier. This should serve to point out both the similarities between behavioral modification and symbolic interactionist perspectives, as well as a basis of contrast from which a synthesis or re-conceptualization of theoretical notions might emerge.

Behaviorism

We have, then, two distinct traditions within behavioristically oriented social science which suggest a fairly lengthy list of variables to guide an empirical study of the influence of parents on student self-assessments. One important issue that should be clarified before proceeding further concerns the question of our use of the term "behaviorism." While symbolic interactionism is often assumed to be a school of thought closely akin to phenomenological approaches to the study of man and the human self, the mainstream of symbolic interactionist

thought is and traditionally has been primarily concerned with the study of behavior. While there is of course disagreement among symbolic interactionists as to precise definitions of concepts and appropriate methods of research, one emphasis of this general orientation has been toward empiricism. Mead (1934) was first and foremost an advocate of an empirically based and pragmatic science; Blumer's (1969) methodological essays repeatedly call for adherence to empirical study; Kuhn and McPartland (1954), Brookover and his associates (1962; 1965; 1967), and Goffman (1959; 1963) all ground their theoretical contributions in the empirical analysis of behavior. This is not to suggest, of course, that some prominent symbolic interactionist scholars do not refer to internal states to explain external behavior. Rather it is to suggest that, given an approach demanding consensual validation regardless of theoretical or ideological perspective, our task is to make certain that student verbalizations are relevant in shaping achievement outcomes or other student behaviors (whether or not these verbalizations are used as indicators of internal states).

The definition of self-conception used in this study is fundamentally based on symbolic interactionism as a behavioral scientific school of thought. Self-conceptualizations are viewed as verbal behaviors in which the individual defines himself linguistically in relation to an environment existing in time. Self-concept is viewed as a theoretical category for grouping certain linguistic acts of individuals which occur in various contexts and over time. Self-conceptualizing behaviors can and do vary over time, and from one social situation to another. All of the evaluations, expectations, and values that a parent may hold for and communicate to his or her child are not equally relevant for any given self view made by the child. Similarly, an evaluation a parent may communicate to his or her child about that child's academic ability is not equally relevant to all the

many different self-evaluations the child is likely to make in carrying out activity in one social setting, or in moving from one social situation to another. One way of organizing our analysis and study of self-conceptualizing behaviors is to follow James (1892) who suggested that for every social role in which a person engages, there is a corresponding set of self-defining linguistic activities. The present study assumes that one aspect of a child's experiences of which we can speak with some coherence are those experiences encountered as a student in school.

We are not only adopting this "multiple self" approach (James, 1892; Skinner, 1953; Brookover, et. al., 1967; Bilby, et. al., 1972); we suggest that within the analytic framework of any given role-specific or task-specific set of self-conceptualizing behaviors there can be any number of self-defining linguistic acts. We recognize at least three important and analytically distinct categories of self-assessments which people make as they attempt to carry out each role they play: (1) their conceptualizations of their ability or competancy to carry out the role in question; (2) the negative and/or positive values they place on carrying out the role for achieving other more profoundly held consequences, i.e., the instrumental value gained from carrying out or failing to carry out the role in question; and (3) the intrinsic values, positive or negative, which they place on the role as an end in and of itself.

While the major portion of empirical research done in this area has been directed toward the first of these three notions (self-conceptions of ability), there is mounting evidence which seems to warrant the utility of such categorizations of self-conceptualizing behaviors. This research is based on a theoretical model of the linkages between the behavior of important others in the lives of individuals as it influences the self-conceptualizing behaviors of individuals, which in turn influences verbalizations about future activity, leading to behavioral outcomes within the role under study. Researches by the authors and their

associates which support this linkage system have been of five basic designs: (1) cross-sectional survey studies; (2) longitudinal studies where changes over five to seven years in parental evaluations were associated with changes in student conceptions of self and achievement; (3) longitudinal studies where future student conditions were forecast on the basis of previous student and parent conceptualizing behaviors; (4) cross-cultural studies utilizing cross-sectional survey designs; and (5) experimentally induced changes in parental evaluations as well as experimentally induced changes in student self-conceptualizing behaviors and academic performances.[1] (see following page)

The empirical portions of this paper report the results of our study of different areas of parental influence on students' self-conceptualizations of their own academic ability.

Procedures

In assessing the impact of parents upon student self-evaluations of ability, we have deliniated a set of parental variables suggested by two distinct behaviorally oriented perspectives within social psychology. The behavioral modification paradigm and symbolic interactionism sensitize us to several similar types of variables, even though the founding fathers of these two schools of thought may differ in terms of the implicit assumptions about the nature of man which undergird their ideas and their vocabularies. The following list of nine variables were taken into account in this study:

(1) reported parental rewards placed on good school work;
(2) reported parental punishments administered consequent to poor school work;
(3) parental surveillance of the child's academic activity;
(4) the importance which parents attach to the school's communicated reports of the child's academic performance;
(5) parental normative achievement expectations;
(6) parental normative attainment expectations;
(7) parental aspirations (desires) for child's educational attainment;
(8) parental plans for child's educational attainment; and
(9) parental evaluations of child's academic ability.

The research in this area is too numerous to list. For illustrations of cross-sectional studies see Brookover, Erickson and Joiner "Educational Aspirations and Plans in Relation to School Achievement." School Review, 75:4 (Winter 1967). pp. 392-400. For a review of cross-sectional studies see Brookover, et al. (1967). For an example of longitudinal, "naturalistic" studies see Brookover, et al., Ibid. For an example of longitudinal studies forcasting student outcomes, see Bryan and Erickson "Forcasting Student Dropout", Education and Urban Society, August 1970. pp. 443-468. Examples of cross-cultural studies are Joiner and Erickson, Scales and Procedures for Assessing Social Psychological Characteristics of Visually Impaired and Hearing Impaired Students, Cooperative Research Project #6-8720, 1967.

For experimental studies, see Brookover, et al., 1965.

The data for this study were collected from fifth- and sixth-grade students and their parents. These parent-student matches were selected from four elementary schools located in four communities in southwestern Michigan. Thirty parents from each school/community were randomly selected from a sample of students who had completed questionnaires very shortly prior to the parental interview study. The study data had been collected as part of a school social environment study which attempted to obtain data from all fifth- and sixth-graders in the selected schools. Thus the only parents of elementary students who were eliminated from the sampling process were those whose children were absent on the day student data were gathered, or whose questionnaires were invalid or incomplete, in addition to those parents of children whose completed questionnaires were invalid. Data were obtained from 120 student-parent pairs from four communities.

Self-conceptualizations of academic ability of students were measured by use of the Michigan State Self-Concept of Ability Scale, an eight-item scale developed in a series of studies of junior high and high school students, and modified and pre-tested for use with elementary school age students.

Items included in the parental interview schedule as indicators of the several parental variables were, respectively:

Parental responses to good report cards (PRGRC):

When your child comes home with a good report card, what do you do?
(1) I give him (or her) more privileges.
(2) I give him (or her) money.
(3) I praise him (or her).
(4) I don't do anything out of the ordinary.

Parental responses to poor report cards (PRPRC):

When your child comes home with a poor report card, what do you do?
(1) I take away privileges.
(2) I physically punish him (or her).
(3) I don't do anything out of the ordinary.
(4) I ask him (or her) to explain why he did poorly.
(5) I offer to help him (or her) with school work.
(6) I encourage him (or her) to do better.

Since these two items contain nominal response categories, in the form presented above they could not be employed in a regression model to assess their predictive utility. Statistical techniques were therefore employed to allow us to make decisions about grouping these response categories into dichotomous form. Automatic Interaction Detection (Sonnquist, 1970) allows us to select for dichotomization the combinations of responses which were most strongly associated with SCA. This statistical technique is based on a series of significance tests of one-way analysis of variance which assesses all possible dichotomous combinations of response categories, indicating which dichotomization provides the best prediction of a selected dependent variable. It was encouraging that this highly empirical approach to making decisions about the categorization of these two variables resulted in a dichotomization with some theoretical sensibility. The analysis of the "parental reactions to good report card" item suggested that we separate the third response category from the other three (#1, 2, and 4); thus the two resulting categories of parental sanctions are praise (# 3) versus overt rewards (# 1 and 2) and extinction (# 4). The "parental reactions to poor report card" item were shown to be best categorized into "supportive" versus "non-supportive" classifications; that is, response categories # 1, 2, and 4 (interpretable as aversive conditions) were grouped together, and # 5 and 6 (plausibly much less aversive) formed the other dichotomous category. There were no responses recorded which fell into the third response category for this item.

Parental surveillance (Surv):

> Could you tell us what stories or reading book your child has been studying at school?
>
> Do you know what your child has been working on in arithmetic class lately?
>
> Interviewers coded parental responses to these two items on a scale from 0 to 2. Zero represented a lack of awareness of what the child was studying, 1 represented a general awareness, and 2 represented a specific knowledge of what the child was studying at school. The two items were employed as a summated scale, with a range of from 0 to 4.

Importance attached to grades (ImpGr):

How important to you is it that your child gets mostly B's or better?
(1) Getting B's or better is not important at all.
(2) Some other things are more important.
(3) Getting B's or better is among the important things in school.
(4) Getting B's or better is the most important thing in school.

Parental normative achievement expectations (AchEx):

In general, what grades do you think your child should get?
(1) mostly E's
(2) mostly D's
(3) mostly C's
(4) mostly B's
(5) mostly A's

Parental normative attainment expectations (AttEx):

How far in school do you think your child should go?
(1) I think he should finish 8th grade (or less).
(2) I think he should go to high school for awhile.
(3) I think he should graduate from high school.
(4) I think he should go to business or technical school.
(5) I think he should go to college for awhile.
(6) I think he should graduate from college.
(7) I think he should do graduate work beyond college.

Parental attainment aspirations for child (AttAsp):

If you child could go as far in school as you wanted him to go, how far would that be?

This question was left "open-ended". Recorded parental responses fell into the categories employed with the attainment expectations question.

Parental attainment plans for child (AttPl):

There are times when what we want to see happen in the future is not the same as what we really think will happen. How far in school do you really think your child will go?

Again, the parental responses to this open-ended question were coded in the same way as attainment expectations and attainment aspirations.

Parental evaluations of academic ability (Eval):

Do you think your child can do school work better, the same, or poorer than his (or her) friends?
(1) poorer
(2) the same
(3) better

Do you think your child will be with the best, average, or below average students when he (or she) graduates from high school?
(1) below average
(2) average
(3) above average

Do you think your child could graduate from college?
(1) no
(2) maybe
(3) yes

Remember, a person needs more than four years of college to be a doctor or a college professor. Do you think your child could do that?
(1) no
(2) maybe
(3) yes

What grades do you think your child can get?
(1) D's and E's
(2) B's and C's
(3) A's and B's

These five items, which had been developed in slightly altered form for administration to students in order to measure perceived evaluations of others, displayed moderately high intercorrelations among the items and was used as a summated scale of actual parental evaluations of academic ability.

Findings

The first type of analysis carried out in assessing the impact of this set of actual parental variables on student self-conceptions of ability was to examine the zero-order correlations between each of the nine parental variables and the SCA scale. Table 1 shows that the only variable significantly associated with student self-conceptions of ability is parental evaluations.

TABLE 1

ZERO-ORDER CORRELATIONS BETWEEN PARENTAL VARIABLES AND STUDENT SELF-CONCEPTIONS OF ABILITY

	SCA
PRGRC	.11
PRPRC	-.14
Surv	.06
ImpGr	.01
ArchEx	.16
AttEx	.14
AttPl	.18
AttAsp	.06
Eval	.25*

*Significant at alpha = .05

In light of these zero-order measured associations, we next analyzed the data to see if parental evaluations as a variable was empirically redundant as a predictor of student self-conceptions of ability. That is, does parental evaluations add to the explained variance in student SCA, over and above the variance explained by all the other parental variables taken into account in this study? To answer this question, a comparison was made between (1) the entire set of parental variables and (2) the set of parental variables minus parental evaluations. This was done to see if, as our theoretical perspective suggests, evaluations add significantly to the prediction of SCA over and above all the other variables as a set. Table 2 shows the results of these two multiple linear regression equations. Evaluations are shown to increase the multiple correlation coefficient from .28 (using all eight other parental variables as predictors of SCA) to .34 (when evaluations are also added to the regression equation). This increase does not reach statistical significance; however, the number of observations and the number of independent variables employed go far in determining the statistical significance of this increase (Melichar, 1965: 9). It is also important to note that the multiple R obtained when using the eight

independent variables than evaluations represents only a minimal increase from that obtained when using evaluations alone (.28 as opposed to .25).

TABLE 2

COMPARISON OF TWO REGRESSION EQUATIONS
ASSESSING CONTRIBUTION OF PARENTAL EVALUATIONS
TO THE PREDICTION OF STUDENT SELF-CONCEPTIONS OF ABILITY

Regression Equation	Multiple R	Significance of Difference in R's
All nine parental variables ——→ SCA	.34	*F = .49 with df = 109/9
All nine parental variables minus Eval ——→ SCA	.28	

no significant at alpha = .05

While further investigation which compares any of the possible combinations of parental variables in relation to SCA is of interest, we directed our more specific attention to a comparison between parental reactions to good and poor report cards and parental evaluations of ability. These two types of variables seem to represent the focal point of whatever discrepancy might exist between the implications for the study of parental influence drawn from the behavioral modificationist and the symbolic interactionist perspectives. Table 3 shows a comparison between the two "parental reaction to report cards" items and the parental evaluations scale as predictors of SCA. The evaluations scale is a

TABLE 3

COMPARISON OF TWO REGRESSION EQUATIONS
ASSESSING PARENTAL REACTIONS TO REPORT CARDS
VERSUS PARENTAL EVALUATIONS AS PREDICTORS
OF STUDENT SELF-CONCEPTIONS OF ABILITY

Regression Equation	R	Significance of Difference in R's
PRGRC + PRPRC ——→ SCA	.20	*F = 3.86 with df = 116/2
Eval ——→ SCA	.25	

*significant at alpha = .05

significant predictor of SCA, as noted earlier; the two parental reactions to report card items, when placed in a regression equation predicting SCA, do not yield a statistically significant multiple R. In addition, we find that each of the two parental reactions to report cards items appear to be empirically distinct from the parental evaluations scale; the correlations between each of the parental reactions item and the parental evaluations scale are .11 for the "good report card" item and .18 for the "poor report card" item, with neither of these measured associations significant at the .05 level.

Finally, when evaluations are viewed in conjunction with parental reactions to report cards as predictors of SCA, there is a significant increase in the obtained multiple R over that found when using only the parental responses to report cards alone. Analyzing the same finding in a slightly different fashion, we see that the increase in explained variance gained by adding the parental reaction to report card items to evaluations as predictors of SCA is not a significant increase over the multiple R obtained using evaluations alone.

TABLE 4

REGRESSION EQUATIONS SHOWING ADDITIVE AND INDEPENDENT ASSOCIATIONS OF PARENTAL REACTIONS TO REPORT CARDS AND PARENTAL EVALUATIONS WITH STUDENT SELF-CONCEPTIONS OF ABILITY

Regression Equation	R	Significance of Difference in R's
A) Eval ——▷ SCA	.25	
Eval + PRGRC + PRPRC ——▷ SCA	.31	*F = 1.44 with df = 115/3
B) PRGRC + PRPRC ——▷ SCA	.20	
Eval + PRGRC + PRPRC ——▷ SCA	.31	**F = 2.70 with df = 115/3

*not significant at alpha = .05
**significant at alpha = .05

Discussion

The findings presented in this paper direct our attention to at least two primary topics. First, the magnitude of literally all the measured associations were only moderate to weak. Several factors might have operated in regard to the strength of the findings. Of primary importance was the age of the respondents. Studying elementary school age children enhances the design of the study in that it increases confidence in our assumption that parents are indeed the major academic significant others to the children, as opposed to the peer group or the teacher. At the same time, however, questions in the SCA scale regarding competence in far distant future educational situations may be less relevant to children than to adolescents or adults.

In addition, this research, unlike so many others, linked the actual reported behaviors of parents to actual verbalizations of their children. While this perhaps approaches what social psychologists have been discussing for decades, most survey studies have concentrated on student reports of parental variables as proxy indicators of actual parental behavior. By directly interviewing parents about their relationships with their children, an entire extra dimension of possible measurement error is unveiled. This suggests, among other things, that significant findings in studies like this one might in fact be important findings as well.

Second, the findings indicate further empirical support for the notion that parental evaluations are crucial in shaping their children's self-conceptualizing behaviors with regard to their competence as students. Without, of course, totally discounting the other variables included in this study, it seems apparent that evaluations, at the very least, display higher associations with SCA than do any of the other variables taken into account.

For the behavioral modificationist who is working with parents, we suggest that they instruct the parent very carefully to communicate positive evaluations of their children. It is important that they not merely emphasize the rewarding of achievement, for should students acquire a belief that they are incompetent but that rewards will be forthcoming if they carry out the desired behavior and punishments if they do not, then they are likely to attempt to remove themselves from the surveillance of their parents. A student in this situation may even attempt to communicate to his or her parent that he is achieving at high levels when actually believing that he is failing. Communicated positive evaluations of ability are not a direct consequence (nor synonymous with) the reinforcement of achievement. In this initial period in the development of sophisticated behavioral modification principles and techniques, we have been too prone to overlook the very real possibility that we can communicate negative conceptions of ability to carry out tasks while at the same time communicating that a reward system is forthcoming upon the completion of certain tasks.

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