

Psychology & Education , 1999

Vol 4, No 1

مجله روان‌شناسی و علوم تربیتی

دوره جدید، سال چهارم، شماره ۱

Investigating Children's Attributional Style and Anxiety, as a Function of Parents Attributional Style, Anxiety, Occupation, and Education^{*}

Mohammad Khodayarifard

Faculty of Psychology and Education, Tehran University

Mark H. Anshel

Department of Psychology, Wollongong University

Abstract. The purpose of this study was to determine the relationships between children's attributional style, anxiety, and academic performance as a function of parents' attributional style, anxiety, education, and occupation. This study included students (N = 277 boys, and 277 girls) enrolled in primary public schools in New South Wales, Australia and their parents (N = 279 fathers, and 374 mothers). The results of this study showed that students academic performance significantly increased with socio-economic status (SES) in terms of fathers' education and occupation and mothers' education and occupation. In addition, there were significant differences between students' trait anxiety and fathers' trait anxiety, and between students' trait anxiety and mothers' trait anxiety. Results showed that trait anxiety for students of high anxious fathers was significantly higher than trait anxiety for students of low anxious fathers.

* This research was financially supported by a grant to the first author from Tehran University.

Furthermore, trait anxiety for students of low trait anxious mothers was significantly less as compared to the trait anxiety of students of high trait anxious mothers. Regarding children's attributional style, results of this study indicated that pessimistic attributional style of low SES students was significantly higher than pessimistic attributional style of middle SES and high SES students. It was concluded that the relationship between children's attributional style and anxiety with their parents' attributional style and anxiety may be rooted in social learning theory, in which children internalize the adult values and behavior.

Key words: Attributional style, Anxiety, Academic Performance, Education, Occupation.

Parents and Childrens' Attributional Style

Researchers have begun exploring how parent-child interactions affect children's explanations for achievement outcomes (Cashmore & Goodnow, 1988; Dix, 1993; Yamauchi, 1989). Studies have indicated that children's self-judgment are connected to the perceptions of their parents' strengths and weaknesses and to the self-reported support they receive from people who have significant influence on them (Reid, Ramey, & Burchinal, 1990). This emphasis that effective interactions for achievement or behavior problems may need to involve attribution-specific parent-child interpersonal interactions. Such interventions would likely benefit from more specific information on how parents assess the causes of their children's success and failure, and the effects of that assessments on their children's emotions and behaviors (Green, 1989).

Weiner (1985) suggests that there are underlying dimensions of

Weiner (1985) suggests that there are underlying dimensions of attributional thinking that may have specific effects on the affective and behavioral responses of parents. For example, consistent with Heider's framework (1958), parents and children can view performance outcomes as due to child ability (internal-stable) or effort (internal-unstable), task difficulty (external-stable) or luck (external-unstable). Weiner's model (1985) of causal dimensions suggests that the responses parents and children make to child behavior may depend on what inferences they hold about locus, stability and controllability of these behaviors.

Attributions of academic success and failure have been linked to both expectancies for future performance and affective reactions. A student may encounter with one or more affective reactions such as pride or shame, happiness or sadness and low or high self-esteem after receiving information that one has performed well or poorly in academic tasks. From this point of view, Weiner (1974), in his initial model, suggested that internal attributions, relative to external ones, should increase pride or shame after academic success or failure. In attributing academic success to more ability or hard work (internal attributions), a student should feel prouder of his/her achievements and should get more external praise than if outcomes were attributed to external causes such as ease of task or good luck. Finally, on the contrary to the failure attributed to external causes (e.g., difficulty of test or bad luck), failure attributed to internal causes (e.g., low ability or insufficient effort) should lead to feelings of shame.

Effective interventions may involve "attribution training" or retraining of parents or children for the purpose of changing their causal attributions and emotions about success and failure outcomes in

performance. For example, when children are taught to attribute failure to lack of effort (an internal, unstable factor) rather than to lack of ability (an internal, stable factor), they are more likely to perform better on academic tasks (Kistner, Osborne, & le Verrier, 1988). Patterns of parent and child beliefs about their respective explanations of good or bad events that they experience may influence the responses of both sides of the events and enhance parental support of their child's academic performance. Consequently, it is important to examine various correlations between attributional style and anxiety of children and their parent.

Parents and Children's Trait Anxiety

Studies of the relationship between childhood and adult anxiety would be helpful in clarifying the significance of anxiety states in children. If such a relationship were found, it would also provide important clinical information regarding the evolution of adult anxiety disorders. The implementation of this goal is limited by the fact that the evaluation of anxiety disorders has not followed a consistent pattern, so that even when information about anxious children is available, it is difficult to identify the nature of the anxiety in question. Furthermore, no prospective studies of the psychiatric status of children with anxiety disorders have been reported.

Childhood anxiety disorders and their relationship to adult anxiety disorders have been investigated by previous researchers. For example, Klein and Klein (1988) contend that "adult anxiety disorders have fostered renewed attention in the childhood and adolescent anxiety states that often bear close resemblance to the adult conditions" (p.

230). The similarity between early and later forms of anxiety disorders does not hold true for all the disorders. For example, panic disorder with panic attacks has not been observed in children. Furthermore, many adults report their panic disorders began in adolescence, not in childhood. Sarason, Davidson, Lighthall, Waite and Ruebush (1960) claims, "The behavior of every child is continually and explicitly evaluated by parents as adequate or inadequate, good or bad" (p. 12). Similar to parents, the teacher is in a position of authority, sets goals for the child, evaluates his or her behavior in attempting to meet these goals and has available a variety of rewards and punishments by which he or she (the teacher) can affect the child. Sarason believes that "the reaction of the test anxious child to actual test and test-like situations in the classroom reflects his experiences in psychologically or interpersonally similar situations in his home both before and after the beginning of formal schooling" (p. 13).

Parents' Education and Occupation

Socioeconomic status is an amalgam of a series of interrelated variables, such as occupation, income, wealth, power, prestige and educational achievements, each of which goes some way toward determining the position of an individual within society. According to Bank and Finlayson (1973) indicators that have been used for determining socioeconomic status are usually income, education, occupation, or a combination of at least two of these factors.

Obtaining accurate data about family income, there have been some difficulties that are well known to social scientists. Linke, Oertel and Kelsey's (1988) study, which was carried out in Australia, showed that

the Index of Economic Resources could be excluded as a measure for socioeconomic status. They claimed that the direct measure of income is the weakest indicator for socioeconomic status. For this reason, in the current study, income was not used as a measure of socioeconomic status. Instead a combination of educational level and occupation were considered.

Considerable parental education has been used for indicating of socioeconomic status (Bank & Finlayson, 1973; Carpenter & Hayden, 1985; Fotheringham & Creal, 1980). The direct effects of parental education related to educability of the home. Educated parents can help improve the family life and environment by helping with their child's homework, developing intellectual activities, and creating more pressure for educational success. Level of parental education can also affect their child's way of life; influence parent-child interactions, linguistic style, and promote parental values and behavior (Bank & Finlayson, 1973).

Parents' occupation has been used as the second indicator of socioeconomic status. In almost all-previous recent research, the parents' occupation has been used as an indicator of socioeconomic status (Ainley, Foreman, & Sheret, 1991; Maqsd, 1983). These investigators claimed that parental occupation as an indicator of socioeconomic status is closely linked to income and social status. In addition, this indicator, is derived from information which can be easily collected and coded (Bank & Finlayson 1973). A major component and determinant of socioeconomic status is the combination of occupation and education, especially post-school qualifications. The link between occupation and education has powerful influences on attitudes and the perception held about the role of a person in society (Keys & Wilson,

1984).

A strong relationship has been found in previous research between the occupation and education of parents and academic performance of the child at all educational levels except possibly in higher education (e.g., Bank & Finlayson, 1973). The researchers found that the father's occupation before marriage has been studied as an independent variable and was found to have a significant influence on the success of the children in general and on working class children in particular. It has been found that education and occupation of the family has significant effects on academic performance of the children. Fraser (as cited in Fotheringham & Creal, 1980) stated that most of the students who fail at school are from disadvantaged families. Physical, cognitive, and emotional developments of children are highly dependent on the socio-psychological characteristics of the family. The growth of potential developmental areas, such as academic performance, mainly occurs during the first few years of life, and the influence of the family on these developmental areas is very important (Fotheringham & Creal, 1980). Thus, the purpose of this study was to determine the relationships between children's attributional style, anxiety, and academic performance as a function of parents' attributional style, anxiety, education, and occupation.

Method

Participants

The sample consisted of 554 students, 227 boys and 227 girls, attending elementary schools in New South Wales, Australia, from grades 4-6, and their parents. These parents included 279 fathers and

374 mothers (N = 653). A total of 240 questionnaires were completed by both parents, 126 only by mothers, 12 only by fathers, and 35 by single-parent mothers. As mentioned earlier, a major component and determinant of socioeconomic status is the combination of occupation and education that were used to determine SES in this study. One scale for measuring social differentiation and social stratification in Australian society is the Australian Standard Classification of Occupations (ASCO), which was developed and revised in 1986 in 1992. According to this scale, occupation was classified into eight basic socioeconomic status groups, which are based on collective judgments about their social standing. These classification are as follows: Management and administrators; professionals; para-professionals; trades persons; clerks; salespersons and personal service workers; plant and machine operators and drivers; and laborers and related workers respectively (ASCO, 1992). In the present study, 21.4 percent of the fathers had jobs categorized as low SES, 45.5 percent of the fathers had middle SES jobs and 33.1 percent had high SES jobs. Among mothers, 8.4 percent had low SES jobs, 56.5 percent had middle SES jobs, and 35.2 percent high SES jobs. Regarding nationality, 67.5 percent of the parents were Australian-born, 20.4 percent of them were European and 12.1 percent of the participants were born in other countries. For language spoken at home, 81.2 percent of the participants were English-speaking, with 18.8 percent non-English-speaking at home.

Measures

Anxiety variables- The Trait Anxiety Inventory for Children (STAIC; Spielberger, Edwards, Lushene, Montuori, & Platzek, 1973) was used as

a self-report measure of childhood anxiety. The psychometric properties of the STAIC have been supported by Spielberger et-al. (1973). The Cronbach (1950) alpha reliability of the STAIC, for the A-Trait scale was reported as .78 for males and .81 for females (Spielberger et al., 1973). Construct validity of the aforementioned test was demonstrated by the test developers. In addition, high internal consistency with coefficients ranging from .83 to .92 was reported. The mean for the fourth, fifth, and sixth grade school children in the Spielberger et al., (1973) standardization sample for A-Trait was 36.7 for males and 38.0 for females. The reliability coefficient of test-retest for A-Trait scale was .65 for males and .71 for females. The alpha reliability coefficients in the current study were .73 for boys and .77 for girls.

The Trait Anxiety Scale (STAI form Y-2; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) was used in order to measure the parents' anxiety. The internal consistency of the STAI has been investigated in several studies. For example, Spielberger et al.,(1983) found high alpha coefficients, .91 for working adults (N= 1,838). Item-remainder correlations which were computed by Spielberger et al., (1983) for the normative samples have provided further evidence of the internal consistency of the STAI scales. The median T-Anxiety item-remainder correlation was .56 for working adults, .57 for the college students and .54 for the high school students. It has been widely used in assessing clinical anxiety in medical, surgical, psychosomatic and psychiatric patient. There are generally high scores in this scale for psycho-neurotic and depressed patients. The alpha coefficient in the current study was .82 for fathers and .84 for mothers.

Attributional style variable- Student's attributional style was

measured by the Children's Attributional Style Questionnaire (KASTAN-CASQ; Kaslow, Tanenbaum, & Seligman, 1978). CASQ is a self-report measure of explanatory style and uses a forced-choice format to assess the child's tendency to attribute positive events to internal, stable and global factors and negative events to external, unstable and specific factors. The psychometric properties of the CASQ has been supported by Seligman et al., (1984). The coefficients of Cronbach's (1950) alpha for the composite positive, composite negative, and overall attributional style were, .71, .66, and .73, respectively (Seligman et al., 1984). The criterion validity of the CASQ was demonstrated by Seligman et al., 1984 who examined the extent to which the CASQ predicts causal explanatory style and uses a forced-choice format to assess the child's tendency to attribute events to internal, stable and global factors. In these studies construct validity for the CASQ was demonstrated that both types spontaneously generated attributions and related to theoretically relevant symptomatology. In the present study, the raw scores of the tests were converted to the scaled score in accordance with the norms of the tests. The alpha reliability coefficients in the current study were .70, .67, and .71 for composite positive, composite negative and overall attributional style respectively.

The Attributional Style Questionnaire (ASQ; Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982) was used to measure the attributional style of the parents. The ASQ is called a self-report measure for the patterns of "explanatory style" (Peterson & Seligman, 1984), defined as the tendency to choose certain causal explanations for good and bad events. The internal consistency of Locus, Stability, and Globality Scales of the ASQ was .93, .89, and .90, respectively. The

aforementioned coefficients in the current study were .90 (Internality), .88 (Stability), and .85 (Globality).

Procedures

Students completed the STAIC (form C-2) and CASQ during the class time. Before the data were collected, students received a short presentation by the researcher concerning the nature of the study and were given the opportunity to ask questions. They then gave verbal consent to participate in the study. The teacher read each inventory item aloud to the students and they simultaneously and immediately answered each item. Furthermore, the parents of the students who participated in the study were given a packet of questionnaires to complete, including the Trait Anxiety Scale (STAI form Y-2), the adult Attributional Style Questionnaire and a demographic sheet containing questions about sex, family size, nationality, language spoken at home, occupation and level of education. Parents were asked to return the questionnaires in a self-addressed stamped envelope to the University.

Results

To determine differences between students' academic performance, trait anxiety, and attributional style on parents' occupation, education, trait anxiety, and attributional style, one-way ANOVAs were computed. Table 1 indicates significant differences regarding students academic performance among families of various socioeconomic status in terms of father's job, $F(2, 387) = 16.52, p < .001$. The Scheffe test showed that the academic performance of students in middle SES families was significantly higher than performance of students in low SES families (p

<.05). The results also showed that the academic performance of students in high SES families was significantly higher than of those in low SES and middle SES families ($p < .05$). No significant differences were found between the mean academic performance of students whose fathers worked part-time or full-time, $F(1, 377) = .07, p = .83$.

Students' academic performance differed as a function of socioeconomic status, as defined by mother's job, $F(2, 326) = 3.39, p < .05$. Post hoc tests indicated that the academic performance of students in high SES families was significantly better than the performance of students in middle SES families ($p < .05$). The post hoc results also showed that the academic performance of high SES students was significantly higher than that of low SES and middle SES students ($p < .05$) (see Table 2 for comparison of students' academic performance as a function of mothers' SES employment). In addition, no significant difference was found between the low and middle SES groups. Finally, no significant difference was found between the means of academic performance of students whose mothers worked full-time or part-time, $F(1, 320) = 1.02, p = .31$.

Table 1: Means & standard deviation of academic performance according to the fathers' job

Group	N	Mean	SD	SE	F
Low SES	87	70.15a	14.56	1.56	16.52*
Middle SES	179	76.23b	11.43	.85	
High SES	124	79.63c	10.14	.91	
Total	390	75.96	12.29	.62	

* $P < 0.001$

Note SES= Socio-Economic Status. The same means with letters are not significantly different.

Table 2: Means & standard deviation of academic performance according to the mothers' job.

Group	N	Mean	SD	SE	F
Low SES	29	73.38a	12.57	2.34	3.39*
Middle SES	185	75.24b	12.22	.90	
High SES	115	78.61c	13.06	1.22	
Total	329	76.26	12.64	.70	

* $P < .05$

Note. SES= Socio-Economic Status

In order to compare students' academic performance according to their parents' education level, a one-way ANOVA was computed. The differences between students' academic performance as a function of fathers' educational level was significant, $F(2, 267) = 15.87$, $P < .001$.

The Scheffe post hoc test indicated that students of highly educated fathers performed significantly better academically than students with less educated fathers (see Table 3 for descriptive statistics). There were significant differences regarding students' academic performance among families of different socioeconomic status in terms of mothers' education, $F(2, 362) = 11.77, p < .001$. According to the Scheffe post hoc test, the academic performance of students whose mothers were highly educated was significantly higher than the performance of students whose mothers received lower level of education (see Table 4 for comparison between students' academic performance according to their mothers' education.).

The ANOVA revealed no significant effects on students' academic performance due to fathers trait anxiety, $F(1, 270) = .49, p = .49$, nor due to their mothers trait anxiety $F(1, 350) = .00, p = .97$.

Table 3: Means & standard deviation of academic performance according to the fathers' education

Group	N	Mean	SD	SE	F
Low education	43	67.91a	17.71	2.70	15.87*
Middle education	113	75.97B	10.31	.97	
High education	114	80.04x	11.11	1.04	
Total	270	76.40.	12.74	78	

* $P < .001$

Table 4: Means & standard deviation of academic performance according to the mathers'education

Group	N	Mean	SD	SE	F
Low education	92	70.14a	13.18	1.37	
Middle education	140	75.94B	11.21	.95	11.77*
high education	133	78.13x	12.79	1.11	
Total	365	75.27	12.67	.66	

* $P < .001$

There were significant differences between students' trait anxiety and fathers' trait anxiety, and between students' trait anxiety and mothers trait anxiety. Scheffe post hoc test indicated that trait anxiety for students of high anxious fathers was significantly higher than trait anxiety for students of low anxious fathers, $F(1, 278) = 5.96, p < .01$. Trait anxiety for students of low trait anxious mothers was significantly less as compared to the trait anxiety of students of high trait anxious mothers, $F(1, 267) = 10.24, p < .001$. See Table 5 and Table 6 for a summary of statistical comparisons.

Table 5: Means & standard deviation of trait anxiety according to the fathers' trait anxiety

Group	N	Mean	SD	SE	F
Low Anxiety	157	34.36a	7.49	.60	5.96*
High Anxiety	123	36.53B	7.26	.65	
Total	280	35.31	7.46x	.45	

* $P < .01$ **Table 6: Means & standard deviation of trait anxiety according to the mothers' trait anxiety**

Group	N	Mean	SD	SE	F
Low Anxiety	197	33.93a	6.90	.49	10.24*
High Anxiety	172	36.40b	7.93	.61	
Total	369	35.08	7.49x	.39	

* $P < .001$

Regarding children's attributional style, there were significant differences between composite attributional style for negative events and mothers job, $F(2, 344) = 4.86, p < .01$. Significant differences were also found between children's negative stability and mothers' job, $F(2, 344) = 4.35, p < .01$. As shown in Tables 7 and 8, Scheffe post hoc tests indicated that pessimistic attributional style of low SES students was significantly higher than pessimistic attributional style of middle and high SES students ($p < .01$). On the other hand, no significant effects were found on children's composite negative attributional style based on their fathers occupation ($p = .74$). Father's educational level was not

found to be related to children's attributional style, $F(2, 275) = .43, p = .65$. Finally, there were no significant differences between children's attributional style and parents' anxiety/attributional style.

Table 7: Means & standard deviation of composite attributional style for negative events according to the mothers' job

Group	N	Mean	SD	SE	F
Low SES	29	8.76a	3.14	.58	4.86*
Middle SES	196	8.43B	3.08	.22	
High SES	122	7.49x	2.34	.21	
Total	347	8.13	2.88	.15	

* $P < .01$

Table 8: Means & standard deviation of negative stability of attributional style according to the mothers' job

Group	N	Mean	SD	SE	F
Low SES	29	3.07a	1.56	.29	4.35*
Middle SES	196	2.52B	1.50	.11	
High SES	122	2.22x	1.35	.12	
Total	347	2.46	1.47	.08	

* $P < .01$

Discussion

The primary purpose of this study was to compare children's attributional style, anxiety, and academic performance, as a function of

parents' attributional style, anxiety, occupation, and education. The results of this study indicated no significant differences in attributional style between parents and their children. These results are consistent with previous investigations. For example, similar to the results of this study, Seligman et al. (1984) found the fathers' and child's attributional style followings unpleasant events were not related. In addition, the results of the present study were consistent with the work of Commerford (1994) who claims that the primary caregiver and his or her child may explain the causes of events differently.

However, the results of other studies were not consistent with the present study (Estrada, Arsenio, Hess, & Holloway, 1987; Joiner & Wagner, 1996; Seligman et al. 1984). Seligman et al., (1984) found that the mother's composite attributional style for negative events correlated with her child's composite style for negative events. Moreover, Estrada et al. (1987) have suggested that reciprocal patterns of parent and child attributions about events experienced by the child may influence the responses of both family members. It is apparent that children learn attributional style from one or both parents, which children then manifest in their own behaviors (Keltikangas-Jarvinen, 1990). According to Cashmore and Goodnow (1986), this is because parents transmit values, beliefs or traits to a younger generation (p.191).

In other results, significant differences were found regarding children's composite attributional style for negative events among families of various socioeconomic statuses. Other studies have reported different results. For example, Ludwigsen and Rollins (as cited in Nowicki & Strickland, 1973) compared students from low socioeconomic classes with those of high socioeconomic status. The researchers did not

find a relationship between composite attributional style and socioeconomic status, though they did report that students from low socioeconomic classes were more internal than students from high socioeconomic classes. In addition, Maqsd (1983), in a Nigerian study, reported no significant association between socioeconomic status and attributional style. Gore and Rotter (1963) reported similar findings for college students in the United States.

One possible explanation for linking children's attributional style with the socio-economic status of their family is that persons who belong to a low SES tend to manifest higher scores of externality in their behavior on attributional style scales (Phares, 1976). These individuals often feel that they have no control over their behavior because they do not have significant power in social mobility or material advantages (Joiner and Wagner, 1996).

For the anxiety construct, the results of this study showed that parents' trait anxiety would be significantly related to children's trait anxiety. In particular, mean trait anxiety scores for students whose parents showed low trait anxiety was significantly lower than for students whose parents scored high in trait anxiety. These results are consistent with selected previous studies (e.g., Dix, 1993; Hammen, Burge, & Adrian 1991). Dix (1993) claims that children internalize their parents' values and views, perhaps parents and their offspring react similarly to the same stressful life events. Along these lines, Hammen et al. (1991) hold that external stressors through their effects on the behavior of one family member [mother or daughter] become family stressors, and the process is reciprocal, potentially affecting all family members (p.344). Thus, it is possible that children learn anxiety symptoms from their

parents, with both child and parent having an attributional style in which negative events are perceived to be caused by internal, stable, and global factors.

On the academic performance measure, results indicated significant differences between different socioeconomic status. Specifically, students' academic performance increased with low to high socioeconomic status. These findings are consistent with several previous investigations (e.g., Ainley et al., 1991; Carpenter & Hayden, 1985; Maqsud, 1983; O'Sullivan & Howe, 1996). Ainley et al. indicated that students whose parents were from higher socioeconomic status showed a higher academic performance as compared with the students whose parents were from the lower socioeconomic group. Maqsud also found similar results regarding students' academic performance. Thus, students' academic performance appears to be influenced by the socioeconomic status of their family.

According to Carpenter and Hayden (1985), higher educated parents are especially aware of the importance of education, and thus, are more likely to pay more attention to their children's academic performance. In addition, high SES parents tend to be more involved in the school activities than parents of lower socioeconomic status (Hoover-Dempsey, Bassler & Brissie, 1987). Student attributes also differ as a function of SES. For example, students from higher socioeconomic status tend to have more favorable attitudes toward education, in general, and toward their own school and teachers, in particular (Ainley, Foreman, & Sheret, 1991; Maqsud, 1983), that may be due to the fact that they are more likely to attend high quality schools.

Finally, as mentioned earlier, another possible explanation for

differences in academic performance between various socioeconomic groups is that SES may reflect the economic situation and material circumstances of the family (Bank & Finlayson, 1973). These two factors, economic situation and material circumstances of the family, may be strongly related to the child's home environment. According to Bank and Finlayson, poverty and low socioeconomic status could directly influence the quality of family life, bad housing, malnutrition, and higher risk of sickness. These factors may also affect family relationships and patterns of child rearing (O'Sullivan & Howe, 1996), and thus, promote an unfavorable attitude toward the importance of obtaining an education. In this connection, Forthringham and Creal (1980) contend that the family's home environment and SES can affect the child's academic skills upon entering school, thereby influencing their present and future attitudes toward school. Similarly, parents from middle SES classes tend to use more humanistic methods of discipline, while parents from working classes more often tend to use ridicule and physical punishment in rearing their children (Bank & Finlayson, 1973). Thus, it may be concluded that home environment might be a function of socioeconomic status, which, in turn, could affect their children's academic performance, all of which is supported by the results of this study.

References

- Ainley, J., Foreman, J., & Sheret, M. (1991). High school factors that influence students to remain in school. *Journal of Educational Research*, 85 , 69-80.
- Bank, O., & Finlayson, D. (1973). *Success and failure in secondary school*. London: Methuen.
- Carpenter, P. G., & Hayden, M. (1985). Academic achievement among Australian Youth. *Australian Journal of Education*, 29, 199-220.
- Cashmore, J. A., & Goodnow, J. J. (1986). Parent-child agreement on attributional beliefs. *International Journal of Behavior Development*, 9, 191-204.
- Dix, T. (1993). Attributing dispositions to children: An interactional analysis of attribution in socialization. *Personality and Psychology Bulletin*, 19, 633-643.
- Estrada, P., Arsenio, W. F., Hess, R. H., & Holloway, S. D. (1987). Affective quality of the mother-child relationship : Longitudinal consequences for children's school-relevant cognitive functioning. *Developmental Psychology*, 23, 210-215.
- Fotheringham, J. B., & Creal, D. (1980). Family socioeconomic and educational-emotional characteristics as predictors of school achievement. *The Journal of Educational Research*, 73, 311-317.
- Green, R. J. (1989). Learning to learn and the family system: New perspectives on underachievement and learning disorders. *Journal of Marital and Family Therapy*, 15, 187-203.
- Hammen, C., Burge, D., & Adrian, C. (1991). Timing of mother and child depression in a longitudinal study of children at risk. *Journal of Consulting and Clinical Psychology*, 59, 342-345.
- Heider, F. (1958). *The psychology of interpersonal relations* New York: Wiley.

- Hoover-Dempsey, K. V., Bassler, O. C., & Brissie, J. S. (1987). Parent involvement: contribution of teacher efficacy, school socioeconomic status, and other school characteristic. *American Educational Research Journal*, 24, 417-435.
- Joiner, T. E. Jr. & Wagner, K. D. (1996). Parental, child-centered attributions and outcome: a meta-analytic review with conceptual and methodological implications. *Journal of Abnormal Child Psychology*, 24, 37-52.
- Kaslow, N. J., Tanenbaum, R. L., & Seligman, M. E. P. (1978) The KASTAN: A children's attributional styles questionnaire. Unpublished manuscript, University of Pennsylvania, Philadelphia.
- Keltikangas-Jarvinen, L. (1990). Attributional style of the mother as a predictor of aggressive behavior of the child. *Aggressive Behavior*, 16, 1-7.
- Keys, C. L., & Wilson, M. G. A. (1984). *The urban Illawarra: A social atlas*. IRIS: Wollongong, Australia.
- Kistner, J. A., Osborne, M., & le Verrier, L. (1988). Causal attributions of learning-disabled children: Developmental patterns and relation to academic progress. *Journal of Educational Psychology*, 80, 82-89.
- Klein, G. R., & Klein, D. F. (1988). Adult anxiety disorders and children separation anxiety. In M. Roth, R. Noyes, & G. D. Burrows (Eds.), *Handbook of Anxiety vol. 1, Biological, Clinical and Cultural Perspective* (pp. 213-229). New York: Elsevier.
- Maqsud, M. (1983). Relationships between locus of control to self-esteem, academic achievement, and prediction of performance among Nigerian secondary school pupils. *British Journal of Educational Psychology*, 53, 215-221.
- Nowicki, S., & Strickland, B. R. (1973). A locus of control scale for children. *Journal of Consulting and Clinical Psychology*, 40, 148-154.

- O'Sullivan, J. T. & Howe, L. (1996). Causal attributions and reading achievement: individual differences in low-income families. *Contemporary Educational Psychology*, 21, 363-387.
- Linke, R. D., Oertel, L. M., & Kenlsey, N. J. M. (1988). *Regional analysis of socioeconomic trends in educational participation*. Canberra: Department of Sociology, RSSS, ANU.
- Peterson, C., & Seligman, M. E. P. (1984). Causal Expectations as a Risk Factor for Depression: Theory and Evidence. *Psychological Review*, 91, 347-374.
- Peterson, C., Semmel, A., von Baeyer, C., Abramson, L. Y., Metalsky, G.I., & Seligman, M. E. P. (1982). The attributional style questionnaire. *Cognitive Therapy and Research*, 6, 287-299.
- Phares, E. J. (1976). *Locus of control in personality*. New jersey: General learning.
- Reid, M. K., Ramey, S. L., & Burchinal, M. (1990). Dialogues with children about their families. *New Directions for Child Development*, 48, 5-28.
- Sarason, I. G., Davidson, K. S., Lighthall, F. F., Waite, R. R., & Ruebush, B. K. (1960). *Anxiety in elementary school children*. New York: Wiley.
- Seligman, M. E. P., Peterson, C., Kaslow, N. J., Tanenbaum, R. L., Alloy, L. B., & Abramson, L. Y. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology*, 93, 235-238.
- Spielberger, C. D., Edwards, C. D., Lushene, R. E., Montuori, J., & Platzek, D. (1973). *Preliminary manual for the state-trait anxiety inventory for children (STAIC)*. Palo Alto California: Consulting Psychologists Press.
- Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the state-trait anxiety inventory (STAI Form Y), "Self-Evaluation Questionnaire"*. Palo Alto California: Consulting Psychological Press, Inc.

Weiner, B. (1974). *Achievement motivation and attribution theory*. Morristown, N. J.: General Learning.

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

Yamauchi, H. (1989). Congruence of causal attributions for school performance given by children and mothers. *Psychological Reports*, 64, 35-363.