

Relationships Among Parents' and Child's General Attributional Styles

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Abstract

This study examined the relationships among student academic performance and child's and parents' attributional styles. One hundred seventy-nine students, including 87 boys and 92 girls, who were enrolled in primary public schools in New South Wales, Australia, and their parents volunteered to participate in the study. Only English-speaking, two-parent families were included. Participants completed age-appropriate attributional style questionnaires. Academic performance was obtained from student records of course grades. The results indicated that both mothers' and fathers' attributions for their own positive and negative life events were related to their children's attributions for their academic performance. We present implications of these results for research on attributions and academic performance.

### **Relationships Among Parents' and Child's General Attributional Styles**

Researchers have explored the ways in which parent-child interactions affect children's explanations for achievement outcomes (Cashmore & Goodnow, 1988; Dix, 1993; Yamauchi, 1989). For example, the results of several studies indicate that children's self-judgments are connected to their perceptions of their parents' strengths and weaknesses, and to the self-reported support they receive from significant others (e.g., Green, 1989; Reid, Ramey, & Burchinal, 1990). This suggests that effective parent-child interactions are linked to greater child achievement and fewer behavioral problems. Additional research is needed, however, on parents' assessments of the causes of their children's successes and failures, and the effects of these assessments on their children's emotions and subsequent behaviors (Green, 1989). One potentially fruitful way to address this question is to examine the combined roles of parental and child attributions in student academic settings.

According to Weiner (1985), there may be underlying dimensions of a child's attributional thinking that can have specific effects on the affective and behavioral responses of their parents. For example, using an attribution framework, both parents and their children can attribute the child's academic performance outcomes to the child's ability (internal-stable) or effort (internal-unstable), to the difficulty of the criterion task (external-stable), or to luck (external-unstable). Weiner suggests that the attributional responses of children and their parents to the child's behavior may depend, at least in part, on what inferences each holds about the perceived 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. Students may experience one or more affective reactions such as pride or shame, happiness or sadness, and low or high self-esteem after receiving information about their academic performances. From this perspective, Weiner (1974), in his initial model, suggested that internal, as compared to external, attributions should increase pride or shame after academic success or failure. In attributing academic success to ability or hard work (internal attributions), students should feel

prouder of their achievements and should receive more praise from parents than if positive outcomes were attributed to external causes, such as ease of the criterion task or good luck.

Finally, contrary to the child's failure attributed to external causes (e.g., test difficulty or bad luck), a failure attributed by either parent or child to internal causes (e.g., low ability or insufficient effort) could lead to the child's feelings of shame. Thus, the manner in which parents attribute the academic performance of their children might influence the children's own perceived causes of academic performance outcomes, perhaps affecting the child's long-term motivation.

Researchers (e.g., Kistner, Osborne, & le Verrier, 1988) have proposed the use of attribution interventions that encourage retraining the causal attributions and emotions of parents and their children about success and failure performance outcomes. For example, when children are taught to attribute failure as due 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 et al., 1988). Thus, it is conceivable that parents' explanations of "good" or "bad" school events may influence their child's responses to the events, and thereby enhance or undermine parental support of their child's subsequent academic performance.

Researchers have examined parental and child attributions in a variety of domains. For example, Collett and Gimpel (2004), in a study of children with or without ADHD, suggested that the attributional styles of ADHD children and their mothers may place them at greater risk for depression or self-esteem problems. Sharp, Fonagy, and Goodyer (2006) examined mothers' understanding of their preadolescent children's attributions to a set of distressing peer-related social scenarios. Results showed that mothers were generally accurate in predicting their children's attributional styles and that maternal accuracy was positively related to children's psychosocial adjustment scores. Other researchers have shown positive relations between mothers and their children's attributions (e.g., Bugental & Martorell, 1999; Burks & Parke, 1996). In summary, there is good evidence that parents, particularly mothers, can recognize their children's patterns of attributions.

Despite previous efforts, the relationship between parents' attributional styles for their children's academic outcomes and the attributions of their children remains unclear. There is some evidence that parenting style is related to children's attributions. For example, Li and Qian (2000) found that Chinese adolescents who rated their parents lower in concern and higher in rejection and punishment reported a more negative (pessimistic) attributional style. In their review of literature on parental attributions, Bugental and Happaney (2002) noted that context or domain can influence attributional processes, as can the particular goals and motives of parents. Parents also show different attributional patterns depending on whether the child's behaviors are positive or negative (Miller, 1995). For instance, when explaining a positive behavioral outcome for their child, parents are more likely to attribute internal factors. Parents' explanations for negative outcomes are more likely to focus on aspects of the situation. However, the data are equivocal on how parents' attributions relate to their children's academic performance.

In a study of 6<sup>th</sup>-grade Greek students, for example, Georgiou (1999) found that children's internal attributions were associated with higher academic achievement than external attributions, but that child and parental attributional styles were not strongly related. On the other hand, O'Sullivan and Howe (1996) reported that children's academic success was predicted by parents' attributions of their children's effort, and that children's academic problems were predicted by parents' attributions to uncontrollable causes (such as luck) for their children.

Most studies consider the link between children's attributions and their parents' attributions of the children in those same situations. That is, the research focus has been on how parents' explanations for their children's outcomes correspond to or predict their children's explanations for the same outcomes. A different approach to studying the relationship between parent and child attributions is to consider the general styles shown by each and how those styles relate to the child's academic achievement. For example, it is unclear the extent to which parents and children's general attributional styles converge or diverge.

Finally, it is possible that greater similarities exist between children's attributions and their same-sex parent, rather than their opposite-sex parent. For example, the results of previous studies suggest that mothers' attributions may be more strongly related to children's attributional styles than fathers' attributions. Unknown, however, is whether mothers and daughters show a stronger relationship between their respective attributional styles than fathers and their daughters. Along these lines, researchers have not examined whether fathers and sons show a stronger relationship between attributional styles than mothers and sons. Given the extent to which causal attributions are related to motivation and subsequent performance, further study is needed to determine the source of a person's causal attributions. It is plausible to surmise that parents may be one important source. The purpose of this study, then, was to assess the relationship between parent and child attributional styles, as related to children's academic achievement.

## Method

### *Participants*

The sample consisted of 179 two-parent English-speaking families. The students from these families (87 boys, 92 girls) attended elementary schools in New South Wales, Australia, in grades 4 ( $n = 62$ ), 5 ( $n = 63$ ), and 6 ( $n = 54$ ). One child from each family was included in the sample (i.e., if more than one child from the same family appeared in the data set, one of the siblings was randomly selected for exclusion). Average age of students was 10.22 years ( $SD = .91$ ), with a range of 9 – 12 yrs. Among the parents, 178 fathers were currently employed full-time, while employment status for 140 mothers was 56 full-time and 84 part-time. Mean family size was 4.68 ( $SD = .96$ ), with a range of 3-8 family members.

### *Materials*

We measured students' attributional style with the Children's Attributional Style Questionnaire (CASQ; Kaslow, Tanenbaum, & Seligman, 1978). The CASQ is a 48-item self-report, forced-choice measure of general explanatory style, assessing the child's tendency to attribute positive and negative

events (e.g., respectively, “getting very good grades” or “getting yelled at by a grown up”) to internal, stable, and global factors. For an equal number of both positive and negative events, respondents received internal, stable, and global scores. These scores were combined into composite positive and negative scores. Higher composite positive scores indicated more internal, stable, and global attributions for positive events. Higher composite negative scores indicated more internal, stable, and global attributions for negative events. An overall attributional style score was calculated by subtracting the negative from the positive composite. Thus, high overall attribution scores reflected a tendency to make more internal, stable and global attributions for positive than for negative events.

Seligman, Peterson, Kaslow, Tanenbaum, Alloy, and Abramson (1984) reported acceptable reliability data as well as criterion and construct validity for the CASQ composite positive, composite negative and overall attributional style. 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, ranging from .67 - .71, were very similar to the coefficients reported by Seligman et al.

We measured parents' attributional styles with the Attributional Style Questionnaire (ASQ; Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982). The ASQ is a 48-item self-report measure of the tendency to choose certain causal explanations for an equal number of positive and negative outcomes (e.g., respectively, “receiving a compliment from a friend,” “not being able to get all the work done that other expect”). It is scored in a manner similar to the CASQ. Peterson et al. (1982) reported acceptable psychometric properties for the internal, stable, and global scales of the ASQ. The reliability coefficients in the current study, ranging from .85 - .90, were very similar to those reported by Peterson et al.

Students' academic performance scores were obtained from their school records with the permission of the respective school principals. This methodology was derived from Ames (1984), who studied achievement attributions of fifth and sixth grade children and used teacher ratings as the only criterion for

students' academic achievement. The classroom teachers, who had access to the students' records, were asked to score their students based on a scale ranging from 0 (*very poor*) to 100 (*very high*) reflecting the students' general level of academic performance. Teacher ratings rather than grades were used in this study to measure academic performance because schools differed in their techniques for evaluating students' academic performance. However, the majority of schools in the district included teacher ratings during the school year.

### *Procedure*

Prior to data collection, we obtained parental permission for all children's participation, as required by the local Department of School Education. To meet this requirement, all children took home a permission slip and a cover letter written by the school's principal to support the study and encourage participation. At the time of data collection, students were briefed about the nature of the study, informed that their responses to the inventories were confidential, and given the opportunity to ask questions. The students verbally assented to participate in the study after being advised that refusing to participate would not result in any deleterious consequences and that they could withdraw from the study at any time without penalty. Teachers assisted with data collection by administering the materials during class time. Teachers read each item aloud to the students, who then immediately wrote their response. All student data collection occurred during class time.

The students delivered the parent materials from school. Each parent received a separate cover letter, the adult ASQ, and a demographic sheet containing questions describing their family size, nationality, language spoken at home, occupation, gender, and highest level of education. Parents were encouraged to complete these materials separately from their spouses and returned them in a self-addressed stamped envelope to the university.

## Results

### *Relationships among students' and parents' attributional styles*

Correlations between scores on the student CASQ with the ASQ for mothers and fathers indicated that students' overall attributional scores were unrelated to either their mother's ( $r[177] = .07, n.s.$ ), or their father's ( $r[177] = .03, n.s.$ ) overall scores. Examining these correlations separately for each grade level revealed a similar pattern of non-significance. Only the correlation between 4<sup>th</sup> grade students' overall scores and their fathers' overall scores approached significance,  $r(60) = -.23, p < .07$ . In this case, as the positivity of a father's attributional style increased, the negativity of his 4<sup>th</sup>-grade child's score increased.

Correlations of students' positive and negative composite subscales with their mothers' and fathers' positive and negative composite scores revealed that children's scores were unrelated to either parent's scores. Examining these correlations separately for each grade level revealed a similar pattern of non-significance. However, the correlation between 4<sup>th</sup> grade students' composite positive scores and their fathers' composite positive scores was significant,  $r(60) = -.30, p < .05$ . In addition, the correlation between 6<sup>th</sup> grade students' composite negative scores and their fathers' composite negative scores was significant,  $r(52) = .29, p < .05$ . Thus, for the younger students, relatively higher father's attribution scores for positive events were associated with relatively lower scores of his child following positive events. For the older students, relatively higher attribution scores following negative events by fathers was related to relatively higher scores for his child following negative events.

Examination of the overall and composite score correlations among students, mothers, and fathers separately by gender revealed no significant relations. Mothers' and fathers' overall scores were also not significantly related to each other. However, spouses' positive and negative composite scores were significantly correlated. In particular, mothers' composite positive scores were correlated with fathers' composite positive ( $r[177] = .42, p < .001$ ) and composite negative ( $r[177] = .28, p < .001$ ) scores. Mothers' composite negative scores also were significantly correlated with fathers' composite positive ( $r[177] = .24, p < .01$ ) and composite negative ( $r[177] = .18, p < .05$ ) scores.

To determine the degree to which parents and children's attributional styles matched within families, quartile splits on the overall attribution scores for child, mother, and father were computed to create "very negative," "negative," "positive," and "very positive" values. The frequencies of these values were then analysed using Chi-square tests. A significant Chi-square would indicate that students' attributional style groupings were related to where their parents decreased at a percentage greater than chance. The test comparing students' overall attribution scores with their mothers' overall scores was not significant,  $X^2(9) = 10.62, p > .30$ . The test comparing students' overall attribution scores with their fathers' overall scores was also not significant,  $X^2(9) = 1.86, p > .99$ . Finally, mothers' and fathers' overall attributional score groupings did not differ significantly in their frequency,  $X^2(9) = 5.62, p > .77$ . Thus, as reflected by the correlational analyses, students' overall attributional styles were no more likely to have matched their mothers' or fathers' overall styles than chance would suggest. Similarly, mothers and fathers were no more likely to have similar overall attributional styles than chance would suggest.

#### *Prediction of Academic Performance With Attribution Styles*

In order to test how child and parent attributions related to students' grades, overall attributional scores, as well as composite positive and negative attributional scores predicted students' academic performance, were examined. The regression of student, mother, and father overall attribution scores on academic performance was not significant,  $F(3, 175) = 2.35, p > .07$ . However, the model including positive and negative composite scores for student, mother, and father was significant,  $F(6, 172) = 2.12, p = .05$ . Specifically, fathers' composite negative scores were associated with greater academic performance for their children ( $B = 1.11, SE = 0.39; t = 2.78, p < .01$ ). Thus, higher scores for internal, stable, and global on father's attributions for negative events in their lives was associated with better academic performance of their children.

While overall and composite scores are useful for determining general attributional patterns, the measures also allow more detailed analyses based on the internal, stable, and global scales for both positive

and negative events. Thus, the student, mother and father attributional style scales (3 positive, 3 negative) on student academic performance scores were regressed (see Table 1). The overall model using only the students' attributional styles was significant,  $F(6, 172) = 2.35, p < .05$ . Specifically, the significant beta coefficients were the negative stability and negative globality scales, indicating that students who did worse academically tended to make more global and stable attributions for negative events.

The overall model using mothers' attributional styles was also significant,  $F(6, 172) = 2.26, p < .05$ . In this case, both the positive internality and positive globality beta coefficients were significant (see Table 1). The children of mothers who tended to attribute their own positive events to internal factors more likely demonstrated higher academic performance. Alternatively, children of mothers who attributed positive events to more global factors were more likely to have relatively poor academic performance. The overall model using fathers' attributional styles was not significant,  $F(6, 172) = 1.75, p > .10$ .

The extent to which attributional styles predicted academic performance for each grade separately was analysed. The overall model of attributional styles for 4<sup>th</sup> graders' was significant,  $F(6, 55) = 2.76, p < .05$ . Specifically, students who reported making more internal attributions for both positive events ( $B = 2.32, SE = 1.20; t = 1.94, p = .05$ ) and negative events ( $B = 2.11, SE = .87; t = 2.42, p < .05$ ) showed superior academic performance. Neither the mothers' nor fathers' overall models were significant for 4<sup>th</sup> grade students. For the 5<sup>th</sup> graders, none of the overall models were significant. For the 6<sup>th</sup> graders, only the overall model using mothers' attributions reached significance,  $F(6, 47) = 2.24, p = .05$ . In this case, the more a mother attributed positive events to global factors, the lower her child's academic performance ( $B = -4.93, SE = 2.09; t = -2.37, p < .05$ ).

Finally, the extent to which attributional styles predicted academic performance for girls and boys separately was also analysed. The overall model using girls' attributional styles,  $F(6, 85) = .97, p > .45$ , and using mothers' attributional styles to predict girls' academic performance,  $F(6, 85) = .60, p > .73$ , were not significant. The model using fathers' attributional styles to predict girls' grades, however, was significant,

$F(6, 85) = 3.30, p < .01$ . In particular, fathers' attributions of positive events to stable factors was associated with poorer academic performance of their daughters ( $B = -3.225, SE = 1.444; t = -2.23, p < .05$ ).

Alternatively, fathers' attributions of negative events to stable factors was associated with improved academic performance for their daughters ( $B = 4.034, SE = 1.346, t = 3.00, p < .01$ ).

The overall model using boys' attributional styles to predict their final grades was significant,  $F(6, 80) = 3.57, p < .01$ . In particular, boys relatively superior academic performance reported significantly more global attributions for positive events ( $B = 2.547, SE = 1.085, t = 2.35, p < .05$ ), and significantly lower global attributions for negative events ( $B = -3.29, SE = 1.009, t = -3.26, p < .005$ ). Neither mothers' nor fathers' attributional styles predicted the academic performance of their sons.

### Discussion

The primary purposes of this study were to explore the relationships between students' attributional styles and those of their parents, and the manner in which the attributions of parents and their student children related to student academic performance. The results indicated that parents' attributions for their own positive and negative events were related to both their children's attributions and academic performance.

With regard to similarities among family members in their attributional styles, evidence for congruence was weak. Selected fathers' attributions, however, were more closely related to their children's attributions than were mothers' attributions. These results are in contrast to previous research suggesting that mothers and their children show attributional similarities (Burks & Parke, 1996; Seligman et al., 1984). Specifically, fathers and relatively younger (4<sup>th</sup>-grade) children showed a moderate negative correlation of their attributions for positive events, and fathers and relatively older (6<sup>th</sup>-grade) children showed a moderate positive correlation in their attributions for negative events.

The results also indicated a moderate degree of similarity between mothers and fathers in their composite attribution scores. That is, parents tended to show similar patterns of explanations for both positive and negative events. While these results are not particularly strong, they do suggest that parents' and their

children's attributional styles may be somewhat dependent on each other. Previous research has shown that attributions made by spouses about their partners are related to how conflict is managed in their relationship, and also change as a function of relationship satisfaction (Davey, Fincham, Beach, & Brody, 2001; Karney & Bradbury, 2000). The possibility that the development of and changes in children's attributions for their own outcomes can be affected by their parents' attributional styles warrants additional research. The role of children's attributions in affecting their parents' attributions might also be considered in further study.

Regarding academic performance, our results from the students' attributions were consistent with previous research (e.g., Carr, Borkowski, & Maxwell, 1991; Stipek & Hoffman, 1980). Students who did not perform well academically tended to show a more negative attributional style (i.e., attributing negative events to more stable and global factors). This pattern was stronger for boys than girls. In addition, both fathers' and mothers' attributional styles predicted their children's academic performance. Interestingly, fathers' composite negative attribution scores were associated with increased academic performance for their children, particularly for their daughters. That is, superior academic performance was associated with fathers with relatively negative, pessimistic attributional style for their own outcomes. On the other hand, mothers who attributed her own positive events to internal factors, and did not attribute her positive events to global factors were more likely to have children with superior academic performance.

Why should parents' attributional styles be associated with academic success for their children? It is possible that a mother's or a father's attributional pattern might affect how children perform academically. For example, parents might model greater or less persistence and conscientiousness to their child, through their explanations for the good and bad things that happen to them. It may also be possible, however, that children's school performance affects the attributional styles of their mothers or fathers. For instance, a child's superior or inferior academic performance might cause parents to alter their causal attributions for their own successes and failures. Future research is needed to determine whether either effect occurs. Of course, there might also be other variables that could account for the observed relationships. Such variables

might include parents' intelligence levels, spouses' marital satisfaction, family's socioeconomic status, and so on. To improve our interpretation of these findings, it would also be of interest to know which parent is more emotionally (and attributionally) involved in his or her child's academic performance from the perspectives of parents and their children.

There were some limitations to this study that were worth highlighting. First, we obtained no assessment of teachers' attributions for their students' performance. Teacher's attributions of children's academic performance are likely moderator variables in improving our understanding of the factors that influence students' attributional style and might provide insights into the factors that determine how children's attributions are related to academic performance. The results of at least one previous study (e.g., Hamilton, Blumenfeld, & Kushler, 1988) have shown that the attributions of teachers and their students are similar, particularly for negative outcomes.

A second limitation concerns the measures we used. Although the underlying attribution theory is the same regarding the locus (internal/external), stability (stable/unstable), and globality (general/specific) of explanations, the adult attribution measure (i.e., the ASQ) focuses on different domains and behaviors than does the children's measure (the CASQ). This probably limited the extent of congruence between parents' and children's attributional styles. On the other hand, it is surprising that a parent's own general attributional style would be related to his or her child's academic performance. After all, the parents' attributional styles are not related to academic domains, nor are those attributions directed toward their explanations for their children's positive and negative outcomes.

In summary, we have shown that students' attributions and academic performance are related to how their parents explain their own positive and negative outcomes. To our knowledge, this is the first study that has examined how both mother's and father's attributional styles relate to their children's attributions and academic performance. Future studies are warranted to examine the role of parents in influencing or determining their children's attributional styles, as well as comparing the strength of parents' and teachers'

attributions in relation to children's attributions (Estrada, Arsenio, Hess, & Holloway, 1987; Keltikangas-Jarvinen, 1990). Along these lines, it would be interesting to assess single-parent families and to compare single-parent and two-parent families on associations between child attributions and their parent(s). Finally, because these data were obtained in New South Wales, Australia, cultural comparisons with other countries and cultures is also needed.

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Table 1

*Summary of Regression Analyses of Student, Mother, and Father Attributional Styles on Student Academic Performance*

Variable	Student			Mother			Father		
	B	SE B	<i>B</i>	B	SE B	<i>B</i>	B	SE B	<i>B</i>
Positive Internal	.417	.689	.047	3.161	1.385	.272 *	1.099	1.147	.092
Positive Stable	-.596	.557	-.089	-1.261	1.639	-.089	-1.971	1.425	-.151
Positive Global	.891	.673	.107	-3.184	1.184	-.270 **	-.142	1.310	-.011
Negative Internal	.940	.542	.132	.462	1.095	.035	.711	.984	.060
Negative Stable	-1.212	.635	-.142 *	1.240	1.281	.093	2.413	1.211	.186 *
Negative Global	-1.339	.690	-.144 *	1.325	1.113	.125	.427	1.035	.040

\*  $p = .05$ , \*\*  $p = .01$ .