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ABSTRACT

Building on prior literature on adults' and children's appraisals of stressors, this study investigated relations among negative and positive appraisal biases, negative divorce events, and children's post-divorce adjustment. Subjects were 79 custodial nonremarried mothers and their children ages 9 to 13 who had experienced parental divorce within the previous 2 years. Subjects were participants in an evaluation of a preventive intervention program for children of divorced parents. One child from each family was interviewed at home, while the mother was interviewed in a separate room. Inventories used were part of a larger battery of questionnaires conducted as pretests to evaluate the efficacy of the intervention program. Analysis indicated that children's negative cognitive errors moderated the relations between divorce events and children's antisocial conduct, classroom competence, and peer competence. Children's scores on a scale measuring positive illusions (high self-regard, illusion of personal control, and optimism for the future) moderated the relation between the occurrence of divorce events and children's academic competence. Together, results suggest that intervention programs which simultaneously target children's appraisal biases and the incidence of negative divorce-related events in their lives would benefit children of divorced parents. Four tables of data and three figures are included. (MM)

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Negative Cognitive Errors and Positive Illusions:  
Moderators of Relations Between Divorce Events  
and Children's Psychological Adjustment

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## ABSTRACT

Cognitive-transactional models of stress and coping suggest that the characteristics of both persons and environments interact to determine children's adjustment to stressful events. Children's tendency to endorse negatively or positively biased appraisals may be important for understanding their vulnerability or resistance to stressful divorce-related events.

Subjects were 79 children ages 9 to 13 who had experienced parental divorce within the previous 2 years. When we controlled for the occurrence of recent negative and uncontrollable divorce-related events, children's scores on a scale of negative cognitive errors (catastrophizing, overgeneralizing, personalizing, and selective abstraction) uniquely contributed to explaining self-reported symptoms of depression and antisocial conduct, and maternal reports of children's behavior problems and competent behaviors. Regression equations indicated that children's negative cognitive errors moderated the relations between divorce events and children's antisocial conduct, classroom competence, and peer competence. Children's scores on a scale measuring positive illusions (high self-regard, illusion of personal control, and optimism for the future) moderated the relation between the occurrence of divorce events and children's academic competence. Together, the results suggest that intervention programs that simultaneously target children's appraisal biases and the incidence of negative divorce-related events in their lives would benefit children of divorced parents.

## BACKGROUND

Children's adjustment to divorce is partly determined by the specific divorce-related stressful events that they experience. Some of the stressors children of divorced parents commonly face include parental distress, parental arguments, criticism of one parent by the other, loss of time with each parent, and the missing of visits by the noncustodial parent (Sandler et al., 1986).

In order to understand the differential impact of divorce events on children and to design effective intervention programs, we need to go beyond considering the direct consequences of these events on children's adjustment. Rather, we need to assess which factors differentially facilitate or hinder a child's ability to adapt to frequent and undesirable divorce events (Felner et al., 1983). According to cognitive-transactional models of stress and coping, children's adjustment to stressful events may be influenced by their interpretations, or appraisals, of the events (Lazarus & Folkman, 1984). Recently, it has been shown that children's endorsement of biased appraisals in response to hypothetical divorce-related situations are significantly associated with self-reported symptoms of anxiety, self-esteem, and aggression, and with maternal reports of child behavior problems (Mazur, Wolchik, & Sandler, 1992).

The present study, building on prior literature on adults' and children's appraisals of stressors, investigates the relations among negative and positive appraisal biases, negative divorce events, and children's post-divorce adjustment. Negative cognitive errors were operationalized as negatively biased appraisals as described by Beck (1976; Beck et al., 1979), and were measured using an

adaptation of the measure developed by Leitenberg and his colleagues (1986). The assessment of positive appraisals, or illusions, was based on Taylor and Brown's (1988) theory that mentally healthy adults hold unrealistically positive views of themselves, an exaggerated belief in their ability to control the environment, and an unrealistic optimism about their future. The ability to maintain positive illusions in the face of crises has been proposed to be an indicator of good adjustment (Taylor, 1983). Yet some studies have found that focusing on the positive may result in subsequent difficulties (Wortman, 1983); however, this possibility has never been investigated in children. For this study, we refined a measure of positive illusions for children which reflected these positive appraisals in response to hypothetical divorce events.

## METHOD

### SUBJECTS

Subjects were 79 custodial nonremarried mothers and their children ages 9 to 12 who had experienced parental divorce within the previous 24 months. The 38 girls and 41 boys were participants in an evaluation of a preventive intervention program for children of divorced parents, and were recruited by random sampling of petitions for marriage dissolution. In families where there was more than one child within the 9 to 12 year age range, one child was randomly selected for our study to ensure independence of response.

On average, the parents had been separated for 2.2 years (range .5 to 7.7 years) and divorced for 1.1 years (range .2 to 2 years). The average age of the children at the time of the interview was 10.6 years (range 9.1 to 12.9 years).

Mothers reported a median annual income range of \$20,000 to \$25,000 for their families (range: less than \$5,000 to \$45,000-\$50,000). Legal custody arrangements were 72% maternal custody and 28% joint custody, and all children lived at least half time with their mother. Seventy-three percent (73%) of the children were Caucasian, 23% were Hispanic, and 3% were African-American.

## **PROCEDURE**

One child from each family was interviewed at home, during which time the mother was interviewed by a different interviewer in a separate room. The inventories in this study were part of a larger battery of questionnaires conducted as pre-tests to evaluate the efficacy of the intervention program. Families were paid \$45.00 for their participation.

## **MEASURES**

1. **Children's Cognitions about Divorce Scale**: This scale is comprised of 10 short descriptions of hypothetical events (see example below) that were selected from a group of representative divorce-related events previously rated as frequent and moderately to highly stressful (Sandler et al., 1986). Each description of an event was followed by 3 to 4 statements that reflected two negative cognitive errors and one or two positive illusions. The scale reflecting **negative cognitive errors** was comprised of 20 statements reflecting catastrophization, overgeneralization, personalization, and selective abstraction. The scale of **positive illusions** was comprised of 15 statements reflecting high self-regard, the illusion of personal control, and optimism about the future. Chronbach's alpha was .86 and .77 for the negative errors and positive illusions scales, respectively.

2. **Divorce events.** Children reported the occurrence of negative divorce events during the past month using the 35-item Divorce Events Schedule for Children (Sandler et al., 1986, 1991).

3. **Measures of Children's Psychological Adjustment: Child Reports**

- a. Children's Depression Inventory (Kovacs, 1981)
- b. Children's Manifest Anxiety Scale (Reynolds & Richmond, 1978)
- c. Youth Self-Report (Achenbach & Edelbrock, 1987) Aggression & Delinquency subscales

**Maternal Reports**

- a. Child Behavior Checklist (Achenbach & Edelbrock, 1983)
- b. Child Competence Scales (Coatsworth, 1992): Academic, Activity, Classroom, & Peer Competence (alpha = .84 to .88)

**RESULTS AND DISCUSSION**

1. As you can see in Table 1, there were strong Pearson correlations among the 3 **negative cognitive error** subscales. Associations among the 3 **positive illusion** subscales were moderate. Because of the strength of these correlations, in subsequent analyses we used only the total negative and positive scales to control for alpha inflation. The correlation of -.04 between scores on the **negative errors** and **positive illusions** scales suggests that a child who endorses negative cognitive errors for divorce events also may endorse positive illusions, and vice versa. Some children may admit negative information into appraisals of themselves, the world, and the future, but in a way that they retain positive illusions as well.

2. As shown in Table 2, the number of actual divorce-related events that children experienced during the previous month correlated significantly with child reports of **negative cognitive errors**, depression, anxiety, and antisocial conduct, and with maternal reports of total behavior problems. A negative association between number of divorce events and **positive illusion** scores nearly reached significance.

3. We used hierarchical regression analyses with divorce events entered first and appraisals entered second to assess the unique effects of negative errors and positive illusions in explaining child symptomatology. As shown in Table 3, the unique amount of variance explained by **negative errors** was significant for child reports of depression and antisocial conduct, and for mothers' reports of their child's behavior problems and academic, activity, classroom, and peer competencies. The amount of unique variance explained by **positive illusions** approached significance in explaining mothers' reports of behavior problems.

4. To test the extent to which appraisal biases moderate the relation between stressful divorce events and children's adjustment, regression equations with centered predictor variables were developed for each adjustment variable. For antisocial conduct, there were main effects for divorce events and **negative errors**, and there was a significant Events X Negative Errors interaction ( $b = -.03$ ,  $p < .01$ ) that indicated significant differences between the two slopes (see Figure 1). Children who strongly endorse **negative errors** report a greater number of antisocial



behaviors, regardless of their stress level, than do children who rarely endorse such appraisals. The antisocial conduct of children who do not endorse negative errors depends on children's experienced level of divorce stress. For predicting children's classroom and peer competence, there were main effects for **negative errors**. There were significant Events X Negative Errors interactions (classroom: ( $b = .01, p < .05$ ); peer ( $b = .02, p < .01$ ) suggesting that negative errors may be a vulnerability factor even under conditions of low stress. Together, these results suggest that a tendency to not endorse negative cognitive errors may be a personality variable that is protective for children who experience little divorce stress but is not protective for children experiencing high levels of divorce-related events.

For academic competence, there was a significant Divorce Events X **Positive Illusions** interaction ( $b = -.03, p < .05$ ). Children who experienced fewer divorce events and strongly endorsed positive illusions were rated by their mothers as highly academically competent. However, endorsement of positive illusions did not ameliorate the effects of high levels of recent divorce events. These results suggest that for children, just as for adults, positive illusions must be based in reality for beneficial effects to occur. As Taylor (1983) has suggested, one problem in arguing for the adaptive significance of illusions is that they are vulnerable to disconfirmation.

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Table 1

Pearson Correlations among Negative Error and Positive Illusion Subscales

Subscale	2	3	4	5	6	7
Negative cognitive errors:						
1. Catastrophizing	.63**	.63**	.61**	-.05	.05	-.23*
2. Overgeneralizing	-	.60**	.53**	-.04	-.03	-.28*
3. Personalizing	-	-	.48**	.06	.13	-.08
4. Selective Abstraction	-	-	-	.10	.07	-.02
Positive Illusions:						
5. High self-regard	-	-	-	-	.50**	.54**
6. Personal control	-	-	-	-	-	.42**
7. Optimism	-	-	-	-	-	-

Note. n = 79.

\* p < .05.      \*\* p < .01.

Table 2

Correlation Coefficients Between Total Number of Negative Divorce Events and Child Appraisal Biases and Adjustment

Adjustment Variables	Number of Divorce Events
<u>Appraisal Biases</u>	
Negative cognitive errors	.39***
Positive illusions	-.18+
<u>Child reports</u>	
Depression	.39***
Anxiety, total score	.47***
Antisocial conduct	.41***
<u>Mother reports</u>	
Total behavior problems	.23*
Academic competence	-.12
Activity competence	.11
Classroom competence	-.09
Peer competence	-.15

Note. N = 79.

+p < .06. \*p < .05. \*\*\*p < .001

Table 3

Regression Analyses of Relation of Negative Errors and Positive Illusions with Child Symptomatology After Controlling for Total Number of Divorce Events

Symptomatology	Negative Errors		Positive Illusions	
	Beta	R <sup>2</sup> change	Beta	R <sup>2</sup> change
<u>Child reports</u>				
Depression	.33	.09**	-.11	.02
Anxiety	.10	.01	-.05	.00
Antisocial conduct	.47	.18***	-.13	.02
<u>Mother reports</u>				
Total behavior problems	.34	.10**	-.20	.04+
Academic competence	-.38	.13***	.14	.02
Activity competence	-.32	.09**	.05	.00
Classroom competence	-.41	.14***	.04	.00
Peer competence	-.32	.09**	.09	.01

Note. n = 79.

Table 4

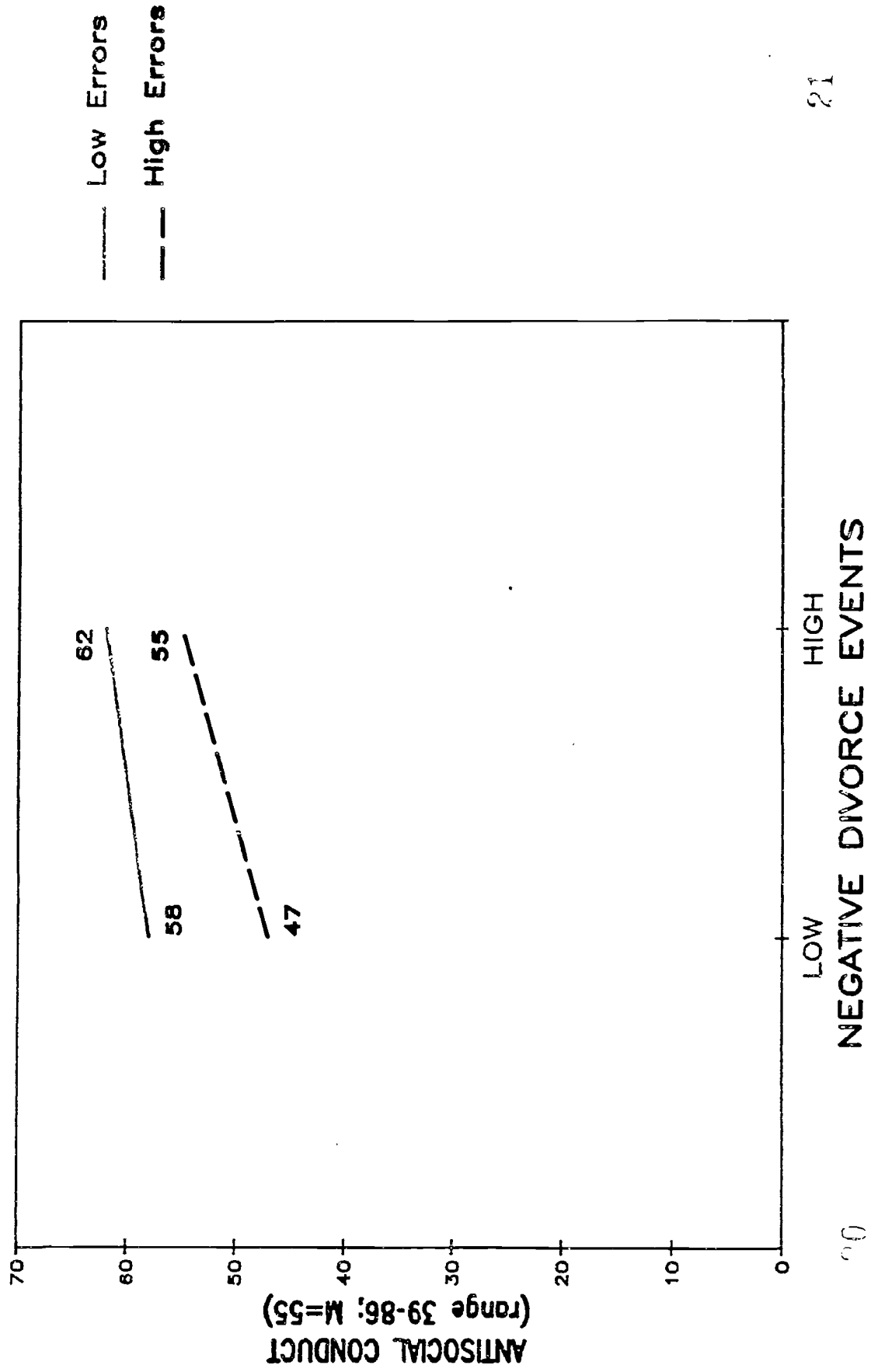
Children's Appraisal Biases as Moderators of the Relation Between Total Number of Divorce Events and

Adjustment

Adjustment Variable	Negative Cognitive Errors		Positive Illusions	
	Unstandardized <u>b</u> for Appraisal x Divorce Events Term	R <sup>2</sup> change	Unstandardized <u>b</u> for Appraisal x Divorce Events Term	R <sup>2</sup> Change
<u>Child reports</u>				
Depression	-.01	.01	-.02	.01
Anxiety	-.01	.02	.00	.00
Antisocial conduct	-.03	.06**	-.03	.01
<u>Mother reports</u>				
Total behavior problems	-.03	.02	.00	.00
Academic competence	.01	.01	-.03	.06*
Activity competence	.01	.03	-.02	.01
Classroom competence	.01	.05*	-.02	.02
Peer competence	.02	.10**	.00	.00

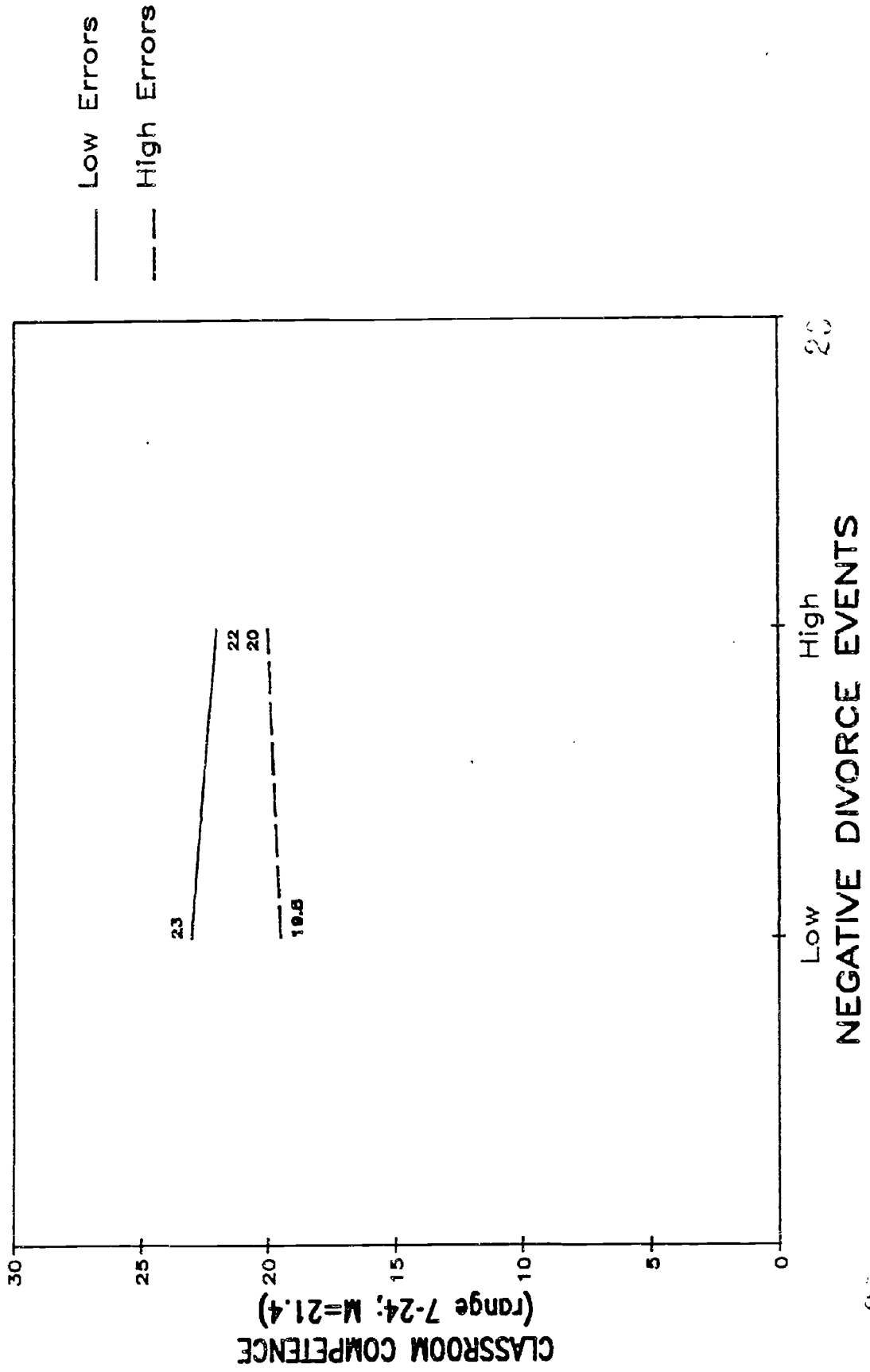
\*p < .05. \*\*p < .01.

# Negative cognitive errors as a moderator of the relation between divorce events and children's antisocial conduct

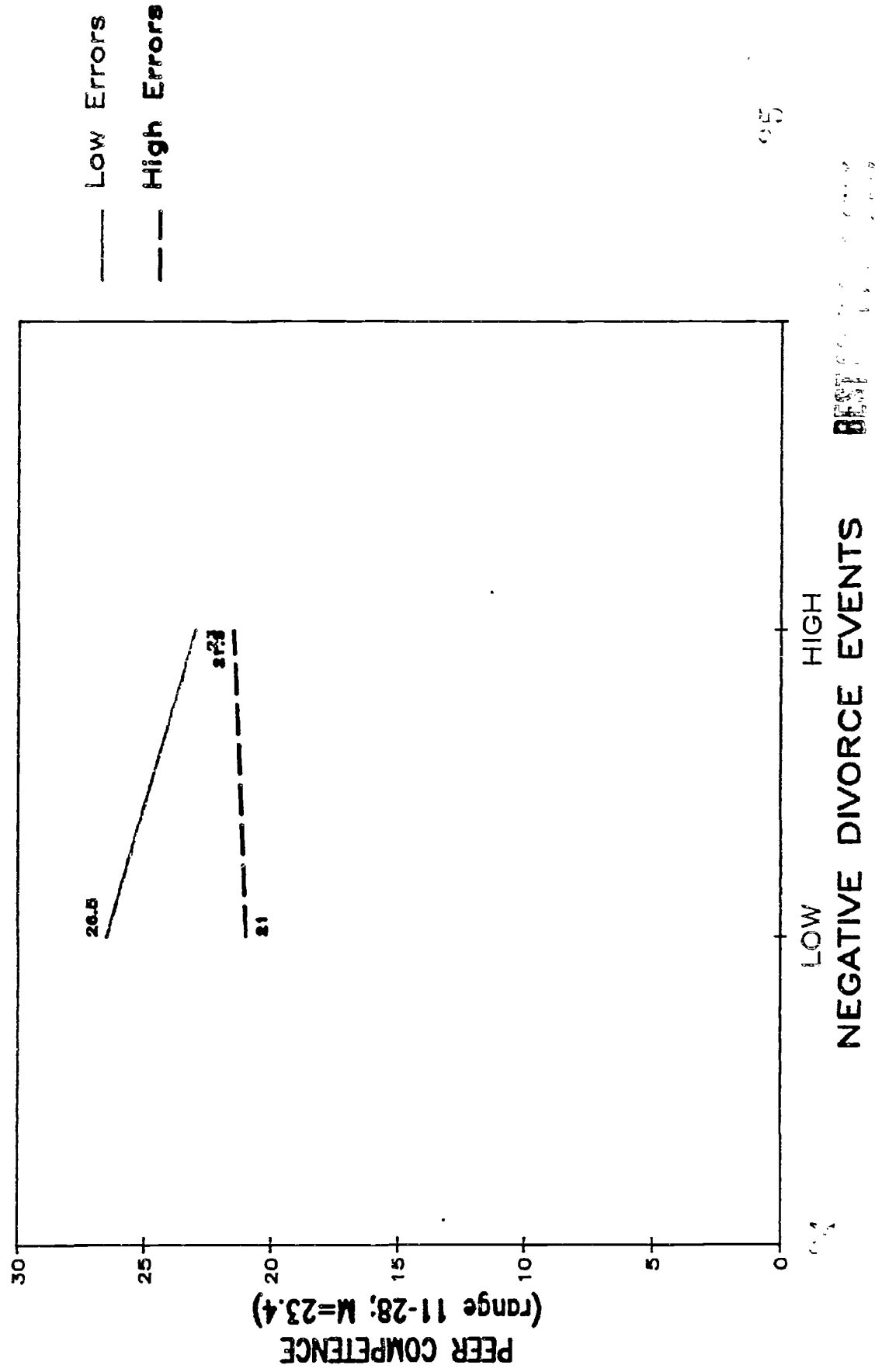




# Negative cognitive errors as a moderator of the relation between divorce events and children's classroom competence



# Negative cognitive errors as a moderator of the relation between divorce events and children's peer competence



Positive illusions as a moderator  
of the relation between divorce events and  
children's academic competence

