

# Longitudinal Links Between Perceptions of Adolescence and the Social Beliefs of Adolescents: Are Parents' Stereotypes Related to Beliefs Held About and by Their Children?<sup>1</sup>

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This study examined: (1) relations between parents' prior stereotypes about adolescence and their later beliefs about their own child during early and middle adolescence, (2) relations between parents' stereotypes and their own child's behaviors during middle and late adolescence, and (3) the role of congruency between mother's and father's beliefs about adolescence in predicting their child's behavior. The results revealed significant relations between parents' prior stereotyped beliefs and their specific beliefs about their own children during the 7th and 10th grades. In addition, the relations between parents' prior stereotypes and their adolescent children's behaviors measured at 3 and 5 years later (10th and 12th grades) were estimated. Parents' stereotypes about adolescence significantly predicted their children's behaviors in both 10th and 12th grades. Finally, the congruency between mothers' and fathers' stereotyped beliefs was significantly related to their children's behaviors in the 10th and 12th grades. Parents who had consistent and strong stereotypes about adolescence had adolescent children with more deviant peers than parents with consistent, but less-stereotyped views.

**KEY WORDS:** adolescence; perceptions; stereotypes; longitudinal.

## INTRODUCTION

Many parents hold negative stereotypes about adolescence, including perceptions of the period as a time of rebelliousness, peer influence, and risk-taking (Buchanan and Holmbeck, 1998; Buchanan *et al.*, 1990). Are these general beliefs or stereotypes related to parents' expectations for their own adolescent or to the adolescents'

behaviors? Although previous studies suggest that general beliefs, such as stereotypes, will influence parents' interpretations of their own child's behavior and, ultimately, their child's beliefs and behaviors (e.g., Jacobs, 1991; Jacobs and Eccles, 1992), little research has been done on the relations between parental perceptions of adolescents as a group (i.e., category-based beliefs) and either their perceptions about their own teen (i.e., target-based beliefs) or the teens' perceptions of themselves. Buchanan and her colleagues (Buchanan *et al.*, 1990, 2001; Whiteman and Buchanan, 2002) have documented the existence of category-based beliefs about adolescence in parents, teens, and teachers; however, no studies to date have examined the longitudinal relations between

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parents' stereotypes (category-based beliefs) and parents' or adolescents' later beliefs and behaviors beyond the early adolescent years. The goals of this study were to investigate: (1) relations between parents' prior stereotypes about adolescence and their later beliefs about their own child during early and middle adolescence, (2) relations between parents' stereotypes and their own child's behaviors during middle and late adolescence, and (3) the role of congruency between mother's and father's beliefs about adolescence in predicting their child's behavior.

## PREVIOUS RESEARCH

Stereotypes of adolescence abound in popular culture. Movies and television shows commonly portray this period as one of great storm and stress. Not surprisingly, parents and other adults hold similar stereotypes about this period, reporting perceptions that include problem behavior, rebelliousness, heightened social concern, and peer conformance (Buchanan and Holmbeck, 1998). Although there may be some truth to the negative stereotypes of adolescence, it is important to note that there are individual and cultural differences in the extent to which adolescence is stormy or stressful (Arnett, 1999). Stereotypic beliefs and stereotypes typically refer to beliefs that are commonly shared by the population and that are linked specifically to easily identifiable social categories. This view of stereotypes is consistent with definitions used throughout the social psychological literature for the past 20 years. Stereotypes may be thought of as generalizations "about a class of people that distinguish that class from others" and stereotyping as a "differential prediction on the basis of group membership information" (McCauley *et al.*, 1980, p. 197).

The effect of stereotypes or category-based beliefs on judgments about specific individuals has received a lot of attention over the years. Two basic trends have emerged. The work in the field of stereotyping and expectancy effects has repeatedly documented the impact of perceiver's category-based beliefs (stereotypes) on the perceiver's perceptions of specific members of the social category (e.g., Allport and Postman, 1945; Bodenhausen and Wyer, 1985; Duncan, 1976; Landy and Sigall, 1974; Sagar and Schofield, 1980). In contrast, work in the area of social judgment has pointed to the power of individuating information (i.e., specific information about the target individual) to over-ride the impact of stereotypical beliefs on perceptions of particular individuals (e.g., Deaux and Lewis, 1984; Krueger and Rothbart, 1988; Locksley *et al.*, 1980, 1982; Nisbett *et al.*, 1981). These studies generally concluded that when specific individuating information

about a particular target person is available, such as past or present behavior, stereotypes exert little, if any, effect on the judgments made about the person. Krueger and Rothbart (1988) suggested that this is because the perceived diagnostic value of the information determines whether it is used, and target-based information may be perceived as more diagnostic.

The apparent differences found in the stereotyping and social judgment literature have been resolved by suggestions that "social judgment is not dominated by either categorical information or by individuating information" (Hilton and Fein, 1989, p. 208). Instead, it appears that stereotypes are multidimensional constructs (Deaux and Lewis, 1983) and that perceivers may use one component of stereotypes to make estimates about other related components (Deaux and Lewis, 1984). In addition, the degree to which stereotypes are used is related to the conditions under which the judgment is made. Therefore, in situations in which there is no built-in competition between target-based and categorical information, both sources will influence a perceiver's social judgments. Several studies provide support for the combined (if not equal) influence of category- and target-based information (Buchanan *et al.*, 1990; Buchanan and Hughes, 2002a; Deaux and Lewis, 1984, Study 3; Jacobs, 1991; Jacobs and Eccles, 1992; Klar, 1990; Nelson *et al.*, 1990).

The combined or differential influences of stereotyped and individuating information are particularly relevant in real-world situations. In such situations, perceivers have both a long history of individuating information and a relationship with the person that may be reflected in their judgments. In addition, they bring world views that may include stereotypes to the judgment situation. Parents' judgments of their sons' and daughters' attitudes and personality during adolescence represent such a real-world situation; which parents may bring stereotypic beliefs as well as past histories of information about the child to bear on their perceptions of him or her as an adolescent.

The Eccles *et al.* (1982) model of parent socialization provides a developmental model that includes both categorical and individuating information as important influences on parent socialization processes. According to this model, parents' general beliefs about the world, such as stereotypes about adolescence, as well as their specific beliefs about their children will affect the messages parents provide to their children about their expectations and values. These messages are expected to influence children's motivations to pursue related activities. Over time, children construct their own values for activities, integrate these values into their self-systems, and ultimately, use these values in future choices (Jacobs and Eccles, 1992). This model may help explain how parents' beliefs

and expectations about adolescence are related to their children's later self-beliefs and behaviors.

The Eccles *et al.* (1982) model has been tested and supported by research examining the relations between parents' attitudes and their children's academic achievement from childhood to late adolescence. For example, Eccles and colleagues (e.g., Eccles *et al.*, 1982; Jacobs, 1991; Jacobs and Eccles, 1992) have reported that parents' perceptions of their children's abilities and their expectations for their children's future successes have a larger impact on children's developing perceptions of self-competence than children's own past performance. Previous studies by Jacobs (1991; Jacobs and Eccles, 1992) also suggest that parents' category-based beliefs about gender can affect their child-specific or target-based beliefs about their child's academic achievement. Jacobs (1991) reported that parents who held traditional gender stereotypes favoring males in mathematics expressed less confidence in their children's math abilities if they had daughters, and more confidence if they had sons, regardless of their children's actual abilities and performance levels. Furthermore, the analyses revealed that parents' gender-typed beliefs were indirectly related to children's self-perceptions, so that boys had consistently higher mathematics ability beliefs and future expectancies than did girls, despite the fact that girls had higher grades in mathematics than boys at all grade levels. A recent study by Bleeker and Jacobs (2004) indicated that mother's gender stereotypic beliefs and target-based beliefs of their children's self-efficacy in math and science during adolescence significantly predicted children's later career choices in early adulthood. This suggests that parents' category- and target-based beliefs can have a long-term relationship to their children's self-beliefs and decision-making that can extend past childhood and adolescence into early adulthood.

Research specifically looking at the impact of categorical and individuating information about adolescence indicated that mothers were more likely to endorse category- and target-based beliefs related to their stereotypes about adolescence than were fathers (Buchanan *et al.*, 1990). In addition, stereotypes about adolescence were stronger for daughters than for sons. In terms of the overall endorsement of category- and target-based beliefs, Buchanan *et al.* (1990) found that parents endorsed target-based beliefs more than they did category-based beliefs, with the difference being especially great for boys. Recent research by Buchanan and Hughes (2002a) demonstrated that parents' beliefs about adolescents as a group were more negative than their expectations for their individual child.

The current investigation draws upon the previous literature by examining the relations between parents'

stereotypes or category-based beliefs about adolescence and their specific beliefs about their own children. Both the category- and target-based beliefs used in this study focused primarily on adolescents' social concern and peer focus because previous research has found that parents believe that adolescence is a period of high social concerns and peer focus (Buchanan and Holmbeck, 1998; Buchanan and Hughes, 2002a). This focus extends prior research that has examined the connections between parent and peers as they influence adolescent behaviors (e.g., Ladd and Le Sieur, 1995) by examining parents' prior stereotypes regarding adolescent peer focus and social activities. On the basis of the previous research examining the relation between parents' gender stereotypic beliefs and their children's achievement, the current study was designed to investigate the relation between parents' stereotypes about the social aspects of adolescence and their adolescent children's behaviors.

Similar to the findings from studies examining the effect of parents' gender stereotypes on their children's achievement, we expected parents' stereotypes about adolescence to be related to their adolescent child's behaviors. Therefore, parents with strong, negative stereotypes about adolescence were expected to have adolescents who behave according to those stereotypes than parents who hold weaker stereotypes about adolescence. In a recent short-term longitudinal study (1 year) Buchanan and Hughes (2002b) found that parents' expectations for how their child would behave during adolescence were related to their child's later behavior. The role of parents' beliefs and expectations may be strengthened or weakened over time, thus the current study investigated the relations between parents' stereotypes about adolescence and their child's behaviors over 5 years during middle and late adolescence.

One characteristic of parents' beliefs that has not previously been examined is the congruence between mothers' and fathers' category-based beliefs about adolescence. Research has shown that concordance in child-rearing practices between parents is positively related to adolescent boys' intellectual functioning, and to adolescent girls' emotional and psychological adjustment (Vaughn *et al.*, 1988), suggesting that children's positive development is related to congruent parental beliefs. A second study that looked at congruence as well as the direction (positive or negative) of parents' evaluations of their children reported that parents who both gave negative evaluations tended to have children who had low self-concepts (Lau and Pun, 1999). Children of parents who were incongruent in their evaluations also had low self-concepts, but their self-concepts were not as low as those with parents who were negatively congruent (Lau

and Pun, 1999). The current study builds on the previous literature to assess the relation between congruency in parents' category-based beliefs about adolescence and the behavioral outcomes of their adolescent children.

## CURRENT STUDY

The main goal of this study was to measure the relations between parents' category-based beliefs about adolescence and their beliefs about their own adolescent children. Because the period of adolescence is commonly thought of as a period of high-social concern and peer focus (Buchanan and Holmbeck, 1998; Buchanan and Hughes, 2002a), most of parents' general beliefs about adolescence assessed in this study focused on this domain. We also examined the relations between parents' category-based beliefs about adolescence and their children's self-reported behaviors during middle and late adolescence, including reports of social abilities, peer relations, and reports of their family relationships. A common conception of adolescence is that there will be storm and stress in the parent-child relationship marked by conflict (Arnett, 1999), thus, we wanted to assess how parents' stereotypes about adolescence may be related to adolescents' reports of their family relationships. For example, parents may become more or less involved in their adolescent children's lives depending on their expectations for changes in peer focus and social behavior during the period of adolescence. Finally, the current study examined the congruency in parents' category-based beliefs about adolescence in relation to their children's behaviors during middle and late adolescence. Previous research has shown that congruency between parents in their beliefs and behaviors can have a significant impact on their children (Vaughn *et al.*, 1988; Lau and Pun, 1999).

Given our objectives, we first hypothesized that parents' earlier stereotypes or category-based beliefs about adolescence would be related to later perceptions of their own children during early and middle adolescence. We expected parents who had strong social stereotypes about adolescence to perceive their children as being more concerned about their social life as they progressed through adolescence. As previously shown by Buchanan *et al.* (1990), parents' category- and target-based beliefs about adolescence can differ by parent and child sex, therefore we also examined differences by parent and child sex. Second, we hypothesized that adolescents' self-reports of their behavior would be related to parents' earlier category-based belief about adolescence. Using the Eccles *et al.* (1982) parent socialization model, we expected that parents who had strong stereotypes or category-based be-

liefs about adolescence would be more likely to have children who adhered to those expectations than children with parents who held weak stereotypes about adolescence. Finally, we expected the congruency between mothers' and fathers' category-based beliefs about adolescence to be related to their adolescent child's later behavior. On the basis of the literature reviewed earlier, we expected children of parents with congruent, strong stereotypes (category-based beliefs) about adolescence to report more negative behaviors than children with parents who held congruent weak stereotypes about adolescence.

## METHOD

### Participants

This study was part of a larger, longitudinal investigation (Michigan Study of Adolescent Life Transitions; MSALT) of students', parents', and teachers' attitudes during the early and middle adolescent years gathered between 1983 and 1996. During the first wave of data collection, children were members of 143 sixth-grade math classrooms located in 12 school districts in primarily White, middle, and working class suburbs outside of a large Midwestern city. All 6th-grade teachers were asked to participate, and approximately 80% agreed. All students within each classroom and their parents were asked to participate, and 80% of the students and 62% of the parents participated. The sample for analyses reported here included lower- to middle-class mothers ( $n = 741$ ) and fathers ( $n = 452$ ) and their adolescent children. The data reported here were collected when the adolescents were in the 6th, 7th, 10th, and 12th grades. Approximately equal numbers of boys and girls participated (girls make up 49% of the sample). Of these boys and girls, 62% were first born or only children and 38% were 2nd or later-born.

### Design and Procedures

During the first wave of data collection when the students were in 6th grade, teachers rated the student's levels of social ability, and the students reported on their level of peer focus. In addition, parents reported on the birth order of their children. These 3 variables were used in later analyses as covariates to control for the children's prior level of social involvement with peers and the parents' prior experience with parenting an adolescent. Each of these factors may have impacted parents' category-based beliefs about adolescence or their target-based beliefs about their children.

Parents reported their category-based beliefs about adolescence in the fall of 7th grade. During the spring of 7th grade and the spring of 10th grade, parents reported their target-based beliefs about their own adolescent child. These questionnaires were mailed to the homes of parents who agreed to participate, and each parent completed the questionnaire independently and returned it in a prepaid envelope.

Adolescents reported on a variety of behaviors related to their peer relations and their family relations during 10th and 12th grade. Trained field staff administered questionnaires to students in two 30-min sessions during class. Students answered questions at their own pace without time limits.

## Measures

### Pre-adolescent Covariates

Three covariates were used throughout the analyses in the study. These control variables were items asked during the fall of 6th grade. The first covariate used in the analyses was birth order. Birth order was coded as 1 = only or first-born child, and 2 = later-born child. Birth order was used as a covariate in the analyses to control for the possible effects of having an older adolescent child

on parents' category- and target-based beliefs. Teachers' ratings of the children's social ability were also used as a control variable. The scale consisted of 2 items (rated on a 3-point Likert scale) that measured teachers' perceptions of each student's social ability (e.g., This student gets along well with other students.). The alpha for this scale was 0.77. Lastly, children responded to a scale measuring their level of peer focus. This scale was used in the analyses as a covariate to control for the children's level of peer focus prior to adolescence. This scale had an alpha of 0.74.

### Parent Measures

Subsets of the items used in the Buchanan *et al.* (1990) study were used to assess parents' stereotypes or category-based beliefs about the period of adolescence. The items were introduced with the statement, "Children at the age of your son/daughter are sometimes called early adolescents. We are interested in your opinions about this time of life." All 8 items were answered on 7-point response scales, ranging from (1) *strongly disagree* to (7) *strongly agree*. The alpha and items from this scale are presented in Table I.

Parents' target-based beliefs about their own children were assessed with 5 items using 7-point scales that asked

**Table I.** Parents' Belief Scales

| Scale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mother's $\alpha$ | Father's $\alpha$ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|
| <i>Category-based beliefs</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.64 <sup>a</sup> | 0.61 <sup>a</sup> |
| <ul style="list-style-type: none"> <li>• Early adolescence is a difficult time of life for children and their parents.</li> <li>• Changes in hormones make early adolescence a difficult period of life.</li> <li>• Early adolescents are so influenced by their friends that what adults say or do matters very little.</li> <li>• Young adolescents are so concerned with how they look that it is difficult for them to focus on schoolwork.</li> <li>• Jr High/Middle school teachers can have a powerful influence on early adolescents.</li> <li>• Changes in behavior during early adolescence are mainly due to the physical changes which are occurring.</li> <li>• Jr High/Middle schools can be very successful with early adolescents only if they make a special effort to meet the changing needs of this age group.</li> <li>• There are lots of things parents can do to make their relationship with their early adolescents a good one.</li> </ul> |                   |                   |
| <i>Target-based beliefs</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.69 <sup>b</sup> | 0.70 <sup>b</sup> |
| Compared to when my child began 7th grade, s/he:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                   |
| <ul style="list-style-type: none"> <li>• is concerned about his/her appearance</li> <li>• is involved in social activities</li> <li>• is concerned about being popular with the opposite sex</li> <li>• socializes with members of the opposite sex</li> <li>• is more concerned with what his/her friends think than what I think</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.64 <sup>c</sup> | 0.64 <sup>c</sup> |

<sup>a</sup> Child in Fall of Grade 7.

<sup>b</sup> Child in Spring of Grade 7.

<sup>c</sup> Child in Grade 10.

parents to indicate their child's level of social concern. Items and alphas for the scale are presented in Table I.

Reports of the child's gender were taken from parents' responses given during the fall of the adolescents' 6th-grade year. Gender was coded as 1 = female and 2 = male.

### *Adolescent Measures*

During 10th and 12th grade, children responded to a variety of items related to their social self-perceptions, peer relations, and relationships with their parents. On the basis of the Buchanan and colleagues' findings (Buchanan and Holmbeck, 1998; Buchanan and Hughes, 2002a) that stereotypes about adolescence include a strong social orientation and peer focus, we included measures of adolescents' social self-perceptions and peer relations in our analyses. In addition, another common stereotype about adolescence is that it is period of high conflict with parents (Arnett, 1999); thus, we included measures pertaining to family relations to examine how the parent child relation may change as a function of stereotypes about adolescence. All scale items were designed with 7-point Likert response formats. Example items from the scales and alphas are given in Table II.

### *Social Perceptions*

At both 10th grade and 12th grade, the Self-concept of Social Ability scale was used to measure adolescents' social self-perceptions.

### *Peer Relations*

At 10th grade, peer relations were measured by the Deviant Friends Scale. At 12th grade, Peer Relations were

measured with 2 scales: Deviant Peers, and Extreme Peer Focus.

### *Family Relations*

At both 10th grade and 12th grade, parent adolescent relationships were measured with 2 scales: Inconsistent Family Control, and Involved Parents.

## RESULTS

### **Description of Parents' Category-Based Beliefs**

To provide some descriptive information about parents' beliefs, a repeated measures analysis of variance was used to determine whether mothers and fathers differed in their stereotypes or category-based (CB) beliefs. These set of analyses were similar to those conducted by Buchanan *et al.* (1990). Sex of child was the independent variable and mothers' perceptions and fathers' perceptions were the repeated variables. Mothers had stronger CB beliefs about adolescence than did fathers,  $F(1, 562) = 11.17$ ,  $p < 0.01$ . No interaction between child sex and parents' perceptions were found. The means for mothers' CB beliefs for daughters and sons were 4.72 and 4.63, respectively, and were non-significant. In comparison, the means for fathers' CB beliefs for daughters and sons were 4.59 and 4.52, respectively, and were non-significant.

### **The Relation Between Parents' Category-Based Beliefs and Target-Based Beliefs**

A median split was used to place mothers and fathers into groups based on their CB beliefs about adolescence.

**Table II.** Adolescents' Behavior Scales

| Scale                          | Example item                                                | $\alpha$ |
|--------------------------------|-------------------------------------------------------------|----------|
| 10th grade                     |                                                             |          |
| Self-concept of social ability | How good are you at making friends? (single item)           | N/A      |
| Inconsistent family control    | Do your parents enforce the curfew rules?                   | 0.57     |
| Involved parents               | My parents take an interest in my activities.               | 0.76     |
| Deviant friends                | How many of your friends regularly drink alcohol?           | 0.76     |
| 12th grade                     |                                                             |          |
| Self-concept of social ability | How hard is it for you to make friends?                     | 0.82     |
| Value of friendliness          | How useful is the ability to make friends?                  | 0.72     |
| Extreme peer focus             | Would you get a lower grade to be popular with you friends? | 0.73     |
| Popularity self-concept        | How popular are you in school?                              | 0.78     |
| Inconsistent family control    | Do your parents enforce the curfew rules?                   | 0.69     |
| Involved parents               | My parents take an interest in my activities.               | 0.77     |
| Deviant peers                  | How many of your friends regularly drink alcohol?           | 0.80     |

The median for the 7-point scale was 4.63 for mothers and 4.50 for fathers. Those scoring above the median were labeled as having strong (more negative) CB beliefs about adolescence and those scoring below the median were labeled as having weak (less negative) CB beliefs. These two CB belief groups were used in all of the remaining analyses.

A series of ANCOVAs examined whether parents' category-based beliefs about adolescence were related to their perceptions of their own adolescent child, called target-based (TB) beliefs here. The category-based beliefs were measured at the beginning of 7th grade, and the beliefs about their own adolescent children were measured once in early adolescence (at the end of 7th grade) and again in middle adolescence (at the end of 10th grade). The independent variable was parents' CB beliefs, coded as described previously (1 = weak; 2 = strong), and the child's sex. The dependent variable was their children's level of social concern since they had entered adolescence.

To control for the possibility that having an older adolescent child may influence parents' beliefs, we included birth order as a covariate. Additionally, to control for the possibility that children's prior peer focus might influence parents' later beliefs about their interests in the social world, children's self-report of their level of peer focus was also used as a covariate in the analyses. To have an independent assessment of prior social skills, teachers' assessments of the children's social ability were also used. These pre-adolescent covariates were measured when the children were in 6th grade, before they transitioned into adolescence.

We found that, even after the addition of the pre-adolescent covariates into the model, mothers who had strong CB beliefs about adolescence believed that their children had significantly greater social concern than mothers with weak CB beliefs when their children were in both 7th grade,  $F(1, 783) = 7.49, p < 0.01$ , and 10th grade,  $F(1, 290) = 6.82, p < 0.01$ , (see Table III). The effect sizes ( $\eta^2$ ) for the relation between mother's CB beliefs and their later TB beliefs were 0.12 for Grade 7 and 0.11 for Grade 10. Similarly, fathers who had strong CB beliefs about the period of adolescence be-

lieved that their children had significantly greater social concern than fathers with weak CB beliefs at both Grade 7,  $F(1, 501) = 12.84, p < 0.01$ , and 10,  $F(1, 176) = 8.34, p < 0.01$ . The effect sizes ( $\eta^2$ ) for the relation between father's CB belief and their later TB beliefs were 0.09 for Grade 7 and 0.10 for Grade 10. Thus, holding stronger stereotypes about adolescence was related to later perceptions of their adolescent child's social concerns, even after controlling for parenting experience, and children's prior social skills, and peer focus.

### Parents' Category-Based Beliefs and Adolescents' Later Self-Reported Behaviors

Parallel analyses were conducted to examine the relations between parents' category-based beliefs during early adolescence and their children's behaviors during 10th and 12th grades. Univariate analyses of covariance were conducted to determine whether parents' CB beliefs were related to adolescents' later self-reported behaviors. The independent variables were the parents' CB beliefs group (weak vs. strong), and the child's sex. Dependent variables included outcomes pertaining to relationships with parents and peer relations at grades 10 and 12. In addition, the pre-adolescent covariates were entered into the model.

In general, even after entering the pre-adolescent covariates into the model, adolescents whose parents had strong category-based beliefs (stereotypes) about adolescence reported more negative relationships with parents and had a stronger orientation towards peers than adolescents whose parents believed that the period of adolescence was less difficult (see Table IV).

### Tenth-Grade Adolescent Outcomes

When the children were in 10th grade, results showed that children of mothers who had strong CB beliefs about adolescence had lower self-concepts of social ability than did mothers who had weaker CB beliefs about adolescence,  $F(1, 492) = 4.48, p < 0.05$ . Also, mothers in the

**Table III.** Means for Mothers' and Fathers' Target-Based Beliefs by Child's Grade and Mothers' and Fathers' Category-Based Beliefs

| Scale                                  | Mothers  |            | Fathers  |            |
|----------------------------------------|----------|------------|----------|------------|
|                                        | Weak CBB | Strong CBB | Weak CBB | Strong CBB |
| Adolescents' 7th-grade social concern  | 4.23*    | 4.70       | 4.28*    | 4.61       |
| Adolescents' 10th-grade social concern | 5.02*    | 5.29       | 4.93*    | 5.30       |

\*  $p < .05$ .

**Table IV.** Means for Adolescents' Self-Reported Behaviors by Child's Grade and Parents' Category-Based Beliefs

|                                | Mothers  |            | Fathers  |            |
|--------------------------------|----------|------------|----------|------------|
|                                | Weak CBB | Strong CBB | Weak CBB | Strong CBB |
| 10th grade                     |          |            |          |            |
| Self-concept of social ability | 5.47*    | 5.24       | 5.27     | 5.37       |
| Inconsistent family control    | 2.97**   | 3.35       | 3.08     | 3.13       |
| Involved parents               | 5.35**   | 4.92       | 5.32     | 5.12       |
| Deviant friends                | 2.09***  | 2.48       | 2.20     | 2.36       |
| 12th grade                     |          |            |          |            |
| Self-concept of social ability | 5.38     | 5.49       | 5.20*    | 5.58       |
| Inconsistent family control    | 3.05     | 3.16       | 3.03     | 2.88       |
| Involved parents               | 5.13     | 5.14       | 5.32     | 5.14       |
| Deviant friends                | 2.59     | 2.69       | 2.51*    | 2.61       |
| Extreme peer focus             | 3.17*    | 3.34       | 3.11*    | 3.35       |

Note: Significant results are indicated only for the effect of parents' category-based beliefs.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

strong CB belief group were rated by their children as having significantly more inconsistent family control than those in the weak CB belief group,  $F(1, 417) = 9.52$ ,  $p < 0.01$ . In addition, mothers who had strong CB beliefs about adolescence were rated by their child as being significantly less involved in parenting than mothers in the weak CB belief group,  $F(1, 416) = 9.49$ ,  $p < 0.01$ . Lastly, adolescents whose mothers had strong CB beliefs reported having significantly more deviant friends,  $F(1, 391) = 16.55$ ,  $p < 0.001$ , than adolescents whose mothers held weak CB beliefs. The effect sizes ( $\eta^2$ ) for these relations between mothers' CB beliefs and adolescent's self-reported behaviors ranged from 0.04 to 0.10. There were no significant effects of father's category-based beliefs on child outcomes at Grade 10.

#### *Twelfth-Grade Adolescent Outcomes*

At Grade 12, there was a significant interaction for mothers between their CB beliefs and child sex, indicating that girls in the weak CB belief group reported having more involved parents whereas boys in the strong CB belief group reported having more involved parents,  $F(1, 404) = 3.93$ ,  $p < 0.05$ . In addition, adolescents whose mothers held strong CB beliefs reported significantly more extreme peer focus than those whose mothers held weak CB beliefs,  $F(1, 410) = 4.82$ ,  $p < 0.05$ . The effect sizes ( $\eta^2$ ) for these relations between mothers' CB beliefs and adolescent's self-reported behaviors ranged from 0.03 to 0.09. Compared to fathers with weak CB beliefs, fathers with strong CB beliefs about adolescence had children at Grade 12 who reported significantly higher self-concepts of social ability

$F(1, 237) = 4.75$ ,  $p < 0.05$ ; had more deviant friends,  $F(1, 319) = 5.51$ ,  $p < 0.05$ ; and had a more extreme peer focus,  $F(1, 331) = 5.54$ ,  $p < 0.05$ . The effect sizes ( $\eta^2$ ) for these relations between fathers' CB beliefs and adolescent's self-reported behaviors ranged from 0.05 to 0.10.

#### **The Congruence of Parents' CB Beliefs and Adolescents' Later Self-Reported Behaviors**

Although the previous analyses indicate that mothers' and fathers' category-based beliefs are independently related to their children's beliefs in middle and late adolescence, we also wanted to know whether the consistency or congruence between parents' expectations were related to their children's outcomes. A series of univariate analyses of covariance examined whether the congruence between mothers' and fathers' category-based beliefs about adolescence were related to adolescents' later self-reported behaviors. A 3-level categorical variable was created to indicate the similarity or congruence between parents' beliefs by using the previous cluster categories. If 1 parent had strong stereotypes about adolescence and the other parent had weaker stereotypes, they were labeled as the "incongruent group" and were given a code of 1. If both parents had weak stereotypes (less negative) about adolescence, they were labeled as the "congruent-weak group," and were given a code of 2. If both parents had strong negative stereotypes about adolescence, they were labeled as the "congruent-strong group," and they were given a code of 3. A series of ANCOVAs were then conducted using the 3-category congruency variable, and the gender of the adolescent as the independent variables. The dependent variables were the same adolescent self-reported behaviors

**Table V.** Means for Adolescents' Self-Reported Behaviors by Grade and the Congruency of Parents' Category-Based Beliefs

|                                | Incongruent | Congruent-less<br>negative | Congruent-more<br>negative | Mothers ( <i>p</i> -value) | Fathers ( <i>p</i> -value) |
|--------------------------------|-------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Grade 10                       |             |                            |                            |                            |                            |
| Self-concept of social ability | 5.19        | 5.42                       | 5.37                       | 0.74                       | 0.33                       |
| Inconsistent family control    | 3.23        | 2.89                       | 3.22                       | 0.59                       | 0.04 <sup>a</sup>          |
| Involved parents               | 5.09        | 5.48                       | 5.13                       | 0.40                       | 0.50                       |
| Deviant friends                | 2.26        | 2.12                       | 2.47                       | 0.91                       | 0.02 <sup>b</sup>          |
| Grade 12                       |             |                            |                            |                            |                            |
| Self-concept of social ability | 5.33        | 5.20                       | 5.64                       | 0.15                       | 0.86                       |
| Inconsistent family control    | 3.19        | 2.90                       | 2.97                       | 0.01 <sup>a</sup>          | 0.04 <sup>a</sup>          |
| Involved parents               | 5.15        | 5.34                       | 5.27                       | 0.37                       | 0.81                       |
| Deviant friends                | 2.76        | 2.39                       | 2.68                       | 0.00 <sup>c</sup>          | 0.01 <sup>c</sup>          |
| Extreme peer focus             | 3.23        | 3.04                       | 3.42                       | 0.39                       | 0.30                       |

<sup>a</sup>*t*-Tests revealed no significant differences.

<sup>b</sup>Congruent-more negative group significantly different from the congruent-less negative group.

<sup>c</sup>Congruent-more negative group significantly different from the Incongruent group and Congruent-less negative group.

discussed in the previous section. The pre-adolescent covariates were also included in the model as controls. In addition, parents' CB beliefs were also included as covariates in order to examine how congruency in parents' CB beliefs adds to the model above and may interact with parents' individual CB beliefs. These analyses were conducted separately for mothers and fathers at grades 10 and 12.

In general, adolescents with parents who were in the congruent-weak group had better outcomes in regard to their self-reported peer relations than adolescents whose parents were in the congruent-strong group. Several significant main effects for child sex were found in each of the analyses, but they are not reported here because sex differences are not the focus of this paper. Table V contains the means for adolescents' self-reported outcomes at grades 10 and 12 by the parents' congruency category.

#### Tenth-Grade Adolescent Outcomes

At 10th grade, we found that when controlling for the pre-adolescent measures and fathers' CB beliefs, congruency in parents' beliefs was related to their children's rating of involvement with deviant peers,  $F_{\text{Fathers}}(2, 243) = 4.53$ ,  $p < 0.05$ . *t*-Tests showed that adolescents whose parents were in the congruent-strong group reported having more deviant peers than did adolescents whose parents were in the congruent-weak group,  $M_{\text{Congruent-strong}} = 2.47$ ,  $M_{\text{Congruent-weak}} = 2.12$ ,  $p < 0.05$ . There was also an interaction of congruence in CB beliefs and child sex for the measure of deviant friends,  $F(2, 243) = 3.36$ ,  $p < 0.05$ , showing that daughters with parents who were in the congruent-weak group reported having fewer de-

viant friends than any other group. The effect size for this ( $\eta^2$ ) for this model was 0.11. In addition, we found that when controlling for the pre-adolescent measures and father's CB beliefs, congruency in parents' beliefs about adolescence was related to adolescents' report of inconsistent family control,  $F_{\text{Fathers}}(2, 255) = 3.38$ ,  $p < 0.05$ . However, *t*-tests did not reveal any significant differences between the 3 groups. The effect size ( $\eta^2$ ) for this model was at 0.06. There were no significant relations between the congruency in parents' CB beliefs and adolescents' self-reported behaviors when the pre-adolescent covariates and mother's CB beliefs were entered into the model.

#### Twelfth-Grade Adolescent Outcomes

At Grade 12, results showed that congruency in parents' CB beliefs were significantly related to adolescents' report of inconsistent family control,  $F_{\text{Mothers}}(2, 255) = 4.00$ ,  $p < 0.05$ ;  $F_{\text{Fathers}}(2, 255) = 3.10$ ,  $p < 0.05$ , even after controlling for the pre-adolescent measures and for mother's and father's CB beliefs. Although there was a significant effect found for adolescents' report of inconsistent family control, *t*-tests did not reveal any significant differences between the 3 congruency groups. Results also showed a significant relation between congruency in parents' beliefs and adolescents' reports of deviant friends after controlling for both mother's and father's CB beliefs and the pre-adolescent measures,  $F_{\text{Mothers}}(2, 306) = 5.88$ ,  $p < 0.01$ ;  $F_{\text{Fathers}}(2, 306) = 4.89$ ,  $p < 0.01$ . *t*-tests revealed that the congruent-strong group significantly differed from both the incongruent and the congruent-weak groups, with adolescents in the congruent-strong group having more deviant peers than the other 2

groups,  $M_{\text{Congruent-Strong}} = 2.76$ ,  $M_{\text{Congruent-Weak}} = 2.39$ ,  $M_{\text{Incongruent}} = 2.68$ ,  $p < 0.001$ .

## DISCUSSION

The goal of this study was to examine the relations between parents' category-based beliefs about the period of adolescence and their target-based beliefs about their adolescent children. In addition, we examined the associations between parents' CB beliefs and their children's self-reported behaviors during middle and late adolescence. Finally, we examined the relations between the congruency of mothers' and fathers' CB beliefs and their children's self-reported behaviors during middle and late adolescence.

In general, we found that parents who had strong CB beliefs or stereotypes about the period of adolescence perceived their own adolescent children as being more peer-focused and concerned about their social life than did parents who had weak stereotypes or category-based beliefs about adolescence. In addition, these effects held 1 and 3 years later as their adolescents were finishing 7th and 10th grades. Unlike Buchanan *et al.* (1990), we found no significant interactions between sex of child and parents' CB beliefs. This discrepant finding may be due to the differences in the measures used in this study.

According to research in the area of social psychology, parents should be able to override the impact of stereotypical beliefs because they know their children well and have individuating information about the child (Deaux and Lewis, 1984; Krueger and Rothbart, 1988; Locksley *et al.*, 1980, 1982; Nisbett *et al.*, 1981), however, the results from this study suggest that general stereotypes may impact parents' perceptions of their own children. Even after controlling for individuating information about the child such as social ability, peer focus, and birth order, parents' CB beliefs were related to their target-based beliefs about their children. Specifically, parents' CB beliefs were significantly related to the TB beliefs about their children's level of social concern. Thus, parents who had strong stereotypes or category-based beliefs about adolescence reported that their adolescent children had higher levels of social concern than those parents who did not hold similar beliefs. This relationship may be due to an expectancy effect on the part of the parents or due to real differences in their children's behaviors over time.

Interestingly, results from this study show that parents' CB beliefs were related to their adolescents' behavioral outcomes in both middle and late adolescence. Adolescents whose parents had strong CB beliefs about adolescence reported more negative relationships with

parents, a stronger orientation toward peers, and more deviant behavior than adolescents whose parents had weaker CB beliefs. These results were found independent of the target child's birth order, prior social ability, or prior peer focus. One way of understanding this relation is by looking at the Eccles *et al.* (1982) parent socialization model. According to this model, parents' beliefs and behaviors regarding the period of adolescence can influence their children's perceptions and interpretation of their experience during adolescence, which can influence their goals and self-perceptions, along with their behavioral choices. Unexpectedly, the results also showed that mothers' CB beliefs seemed to have more of an affect on children's behaviors at 10th grade, whereas father's CB beliefs seemed to have more of an affect on their children's behaviors at 12th grade. Future research should explore this difference in the relation between parents' CB beliefs and their children's behaviors over time.

Finally, this study revealed that the congruency of parents' category-based beliefs was related to later adolescent attitudes and behaviors. However unlike Vaughn *et al.* (1988), we found that congruency between parents' beliefs, in and of itself, did not predict positive adolescent outcomes. Indeed, we found that the valence of the beliefs was related to their adolescent children's later behaviors. Like Lau and Pun (1999), we found that parents who were in the congruent-weak group in their beliefs about adolescence had children who were less peer-focused and had fewer deviant friends than parents who were in the congruent-strong group. Some effects were also found for children of parents who held incongruent beliefs about adolescence. Similar to adolescents with parents in the congruent-strong group, adolescents whose parents held incongruent stereotypic beliefs (1 strong and 1 weak) reported more risky friends. However, in general, the data suggest that the outcomes for adolescents with parents in the incongruent group were not as negative as for those with parents in the congruent-strong group. Thus, having at least 1 parent who holds less stereotyped beliefs about adolescence seems to be a protective factor for having deviant friends.

Although we found that parents who held weak CB beliefs about adolescence had children who fared better than those with parents who held strong CB beliefs, this finding needs to be interpreted with caution. Overly positive expectations for the period of adolescence may be just as damaging as negative expectations. Extant research suggests that adolescence is a period of adjustment and a transitional period from childlike to adult ways of thinking and behaving (Arnett, 1999). With this transition, adolescents tend to spend more time outside the home with peers (Larson *et al.*, 1996). Being aware of these changes

and striking a balance between positive and negative expectations may be necessary for adolescents' optimal development. In addition, it is also important to understand that parents' beliefs about adolescence are embedded in a cultural context. For example, Buchanan and Whiteman (2000) suggest that the stereotypes about adolescence tend to be more positive among African-American families than among European-American families.

An interesting finding from this study is that even after controlling for previous parenting experience in the form of having already parented an adolescent, parents' category-based beliefs significantly predicted the TB belief of their adolescent child. Therefore, prior experience with an older adolescent child does not seem to influence parents' views of the target child. However, it is important to point out that we only assessed birth order as a measure of parenting experience, we did not assess the type or quality of relationship parents' had with the older sibling. Research by Whiteman and Buchanan (2002) demonstrated that parents' quality of experience with an older adolescent sibling was a better predictor of the TB belief of their younger adolescent child than the simple presence or absence of an older sibling.

In conclusion, we found strong relations between parents' prior stereotypes about adolescence and their later beliefs about their own adolescent's behavior as well as with the self-reported behaviors of their child in middle and late adolescence. Consistent with previous research on the role of parental gender stereotypes related to child and adolescent achievement perceptions (Jacobs, 1991; Jacobs and Eccles, 1992; Bleeker and Jacobs, 2004), the findings from this study further support the Eccles *et al.* (1982) parent socialization model. In addition, these findings extend previous research by examining the role parents' stereotypes about the social aspects of adolescence play in socializing their adolescent children (Buchanan and Holmbeck, 1998; Buchanan *et al.*, 1990). This is an important addition to developmental research that has previously characterized parents and peers as separate, and sometimes conflicting, influences in the lives of adolescents; and more recently characterized the roles of parents and peers as separate, but related (e.g., Ladd and Le Sieur, 1995). Our findings suggest that it is also important to consider the role of parents' beliefs about peers and the social world, because these are likely to impact their perceptions of and interactions with their child. Finally, the results from this study indicate that both categorical and target-based information play important roles for parents' perceptions of their adolescent children. The mechanisms of transmission of their beliefs are beyond the scope of this study, however. Future research should focus on the ways in which parents communicate their

beliefs about adolescence, as well as their expectations for their particular child's social interactions and social partners.

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