

## Evidence of "rose-colored glasses": An examination of the positivity bias in young children's personality judgments.

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### **Abstract:**

Young children exhibit a positivity bias in their judgment of personality traits, wherein they attend to or process information selectively to maintain optimistic views of the self and others. In addition to its theoretical relevance for developing a cohesive model of personality reasoning, the positivity bias has implications for several aspects of psychosocial well-being (e.g., peer relations, personal safety). Despite its importance and recurrence across many research studies, little attention has been devoted to studying the positivity bias systematically. This article describes 3 lines of research that demonstrate a positivity bias in early personality reasoning and presents arguments for the role of adaptive immaturity and socialization factors in setting the stage for, and perpetuating, the positivity bias. Suggestions for future research center on the need to consider the positivity bias as a profile of personality attribution, to identify the factors that contribute to the bias, and to understand the significance of the bias over the course of development.

**Keywords:** social perception | personality traits | positivity bias | childhood | child development

### **Article:**

One of the most complex tasks that individuals face is to make sense of their social surroundings (see Heider, 1967). Part of this undertaking involves making personality judgments about other people to explain their thoughts and behaviors. For example, knowing that my colleague is shy helps me to understand why she is nervous about an upcoming presentation and why she is solitary at the holiday party. This knowledge guides my interactions with her, perhaps leading me, for instance, to make a special effort to put her at ease in such situations. Assuming that personality traits are stable, enduring features of people (e.g., Yuill, 1993), it would also seem sensible for me to not suggest an evening of karaoke to her.

The development of a “theory of personality” is a prevalent topic of interest, in part because it has implications for children’s psychosocial well-being, including peer relations (Dodge, 2006), achievement motivation (Heyman, 2008), and prejudice and stereotyping (Bigler & Liben, 2007). Theoretically, there is a need for cohesive models of personality understanding that place it in the context of cognitive and social development (see Malle, 2004). In this article, I concentrate on one aspect of the child’s theory of personality: the tendency to exhibit a positivity bias in personality judgments. While there are several ways in which the positivity bias is defined (e.g., Droege & Stipek, 1993; Heyman & Giles, 2004; Schuster, Ruble, & Weinert, 1998; Stipek & Hoffman, 1980), it is conceptualized here as the tendency to acquire or maintain positive views of oneself and others by attending to, processing, and/or interpreting information selectively (see Mezulis, Abramson, Hyde, & Hankin, 2004). The focus of this article concerns personality attribution about the self and others in early to middle childhood, in contrast to social-cognition in infancy (e.g., social referencing), in which a negativity bias has been documented (see Vaish, Grossmann, & Woodward, 2008).

Because the positivity bias has been documented in naturalistic research (e.g., Benenson & Dweck, 1986) and experimental research (e.g., Boseovski & Lee, 2006), as well as in social and nonsocial contexts (e.g., Boseovski, Shallwani, & Lee, 2009) and in judgments of self (e.g., Stipek, 1981) and others (e.g., Stipek & Daniels, 1990), it ought to be considered a key aspect of early personality attribution. Understanding the positivity bias is essential for developing a framework that captures aspects of personality understanding, including the appreciation of traits as internal, stable features of individuals that have causal-explanatory value (see Liu, Gelman, & Wellman, 2007). Moreover, knowledge about the positivity bias will inform an understanding of aspects of development such as achievement motivation and conceptual change. Finally, it is important to understand how the positivity bias affects children’s lives. For example, an excessive trust in strangers may compromise a child’s personal safety (see Briggs, 1991). In this article, I review research that reveals a positivity bias in children’s personality judgments and discuss factors that may set the stage for thinking positively about the self and others. The article concludes with recommendations for future research.

### Evidence for a “Rose-Colored” View of the World in Childhood

A positivity bias in personality reasoning emerges as early as 3 years of age (Boseovski & Lee, 2006), peaks and persists through middle childhood (e.g., Benenson & Dweck, 1986; Heyman & Giles, 2004; Newman, 1991), and attenuates somewhat by 10–11 years of age (e.g., Heyman, Gee, & Giles, 2003; Heyman & Legare, 2005). By adulthood, a negativity bias has been well-documented in the domain of impression formation (see Rozin & Royzman, 2001), although

there are context-specific manifestations of a positivity bias (e.g., self-serving attributions, Mezulis et al., 2004).

One line of research has focused on children's personality trait ratings of the self and others, particularly in relation to academic achievement. Kindergartners' and first graders' ratings of their achievement status (smartness) are highly positive (e.g., Stipek & Mac Iver, 1989) and unrelated to teacher ratings (e.g., Stipek, 1981; but see Stipek & Tannatt, 1984); only in second grade do self-ratings begin to correspond with reality. Moreover, trait explanations appear earlier for academic success than for failure (e.g., Benenson & Dweck, 1986; Normandeau & Gobeil, 1998; Satterly & Hill, 1983). In interviews with children between 5 and 10 years of age, Benenson and Dweck (1986) documented explanations for success in the first grade, whereas explanations for failure did not emerge until grade 4. Preschoolers' attributions of others are favorable and tend to overgeneralize positive impressions to irrelevant domains (e.g., assume that an intelligent child is athletic; Stipek & Daniels, 1990; see also Cain, Heyman, & Walker, 1997; Heyman et al., 2003; Saltz & Medow, 1971). Finally, research on children's willingness to accept self-report information from peers revealed that 6- and 7-year-olds were more likely than 10- and 11-year-olds to believe others' self-evaluative ratings (such as "smart"), indicating a lack of awareness of self-presentation tactics (Heyman & Legare, 2005; see Mills & Keil, 2005, 2008, on the development of skepticism).

A second line of research has examined children's ability to draw on behavioral information to make trait attributions and behavioral predictions. In these studies, researchers typically manipulate positive and negative valence information to examine its effects on personality reasoning. Supporting the notion of a positivity bias is the finding that young children require less behavioral evidence to make a positive trait attribution about an individual than they do to make a negative attribution. In a study by Boseovski and Lee (2006, Experiment 2), 3- to 6-year-olds were given one or five pieces of positive or negative behavioral information about an actor and then were asked to make trait attributions. Participants made positive attributions (i.e., "nice") whether they had heard about one or five positive behaviors, but they required five negative behaviors to make negative attributions. This is consistent with findings that there are age differences in dispositional attributions for negative behavior but not for positive behavior: Five- and 6-year-olds made as many attributions as did 9- and 10-year-olds about characters with high abilities or positive traits but made fewer attributions about characters with low abilities or negative traits (Rholes & Ruble, 1984). Even when given three exemplars of negative acts, kindergartners to fourth graders were reluctant to judge a character's behavior as intentional (Jones & Thomson, 2001). Children between 3 and 6 years of age tend to reject high consensus (i.e., observer agreement) information when it is negative and instead make positive attributions. However, they accept low-consensus information when it is positive and use it to make positive

trait attributions and behavioral predictions (Boseovski & Lee, 2008). Finally, whether they had heard about five instances of an actor's past success or failure, 3- to 6-year-olds predicted future success, but not failure, for the actor. This applied to social and nonsocial interactions and extended to a novel context (Boseovski et al., 2009).

In addition to requiring different amounts of information to make positive versus negative attributions, children use behavioral information selectively to make attributions. Rholes and Ruble (1986) found that 5- and 6-year-olds made a positive judgment about a character after hearing about a single negative behavior following many positive behaviors—and also after hearing about a single positive behavior following many negative behaviors. In contrast, 9- and 10-year-olds' judgments were based on the predominant behavior. Ruble, Newman, Rholes, and Altshuler (1988) reported that the majority of 5- to 6-year-olds mislabeled negative behavior positively, suggesting selective memory or processing biases for positive events.

A third line of research has focused on essentialism in personality reasoning, that is, the degree to which children consider traits to be “stable, unchanging, likely to be present at birth, and biologically based” (Gelman, Heyman, & Legare, 2007, p. 757; see also Gelman, 2003). There are individual differences in children's endorsement of traits as fixed (i.e., entity theory) or malleable (incremental theory; see Erdley & Dweck, 1993). In contrast to entity theorists, incremental theorists endorse the possibility of change in traits. Notably, in early to middle childhood, children appear to endorse entity theories for positive traits and incremental theories for negative traits. Lockhart, Chang, and Story (2002) told 5- to 6-year-olds and 7- to 9-year-olds about a character who had undesirable (Experiment 1) or desirable traits (Experiment 2) at 5 and 10 years of age and asked whether these traits would exist at 21 years of age. The youngest children endorsed the most change from negative to positive traits and assumed stability in positive traits; in contrast, older children predicted change toward the “average.” In another study, 7- to 8-year-olds and 11- to 13-year-olds heard about a character with positive or negative academic or social traits (Heyman & Giles, 2004). Both age groups predicted that a negative trait would become positive. Positive traits were judged as more stable than negative traits, and participants made more “nature” than “nurture” explanations and inferred them more readily at all ages. Cross-cultural research revealed this optimism in 5- to 6-year-old Japanese participants as well (Lockhart, Nakashima, Inagaki, & Keil, 2008). Finally, 7- and 8-year-olds endorse positive sociomoral stability, or “goodness,” more than negative sociomoral stability, or “badness” (Heyman & Dweck, 1998).

To summarize, findings from at least three disparate lines of research indicate that children exhibit a positivity bias in personality reasoning. In early to middle childhood, children rate

themselves and others more positively than is warranted (i.e., based on counterevidence, or lack of evidence, or impartiality of information). They require less information to make positive personality judgments than they do to make negative judgments and process information selectively to favor positive judgments. Finally, young children tend to hold entity theories for positive traits, but incremental theories for negative traits, perpetuating a positivity bias in personality traits over time. Because this bias has surfaced across multiple tasks and several aspects of personality reasoning, it is reasonable to conclude that it is a robust feature of personality understanding in childhood.

### Contributors to the Positivity Bias

While there has been no direct investigation of the causes or mechanisms that underlie the positivity bias, one influential view is that it is indicative of a metacognitive immaturity that was adaptive evolutionarily and that continues to be adaptive in early childhood (e.g., Bjorklund, 1997; Bjorklund & Green, 1982; see also Lockhart et al., 2002). Young children face a daunting task in terms of the number of skills they need to learn, and having a positive attitude encourages perseverance. Failure to appraise accurately their abilities enables them to persist at goal achievement in the face of social or academic failure and to engage in trial-and-error approaches that they might not pursue if they had an accurate sense of their ability (Bjorklund & Green, 1982). Avoidance of negative feedback may further enable children to maintain a strong sense of self-efficacy (see Stipek, 1981).

If there is indeed a tendency toward a positive outlook in early childhood, it is bolstered by socialization practices, including parenting (e.g., Miller, 1995) and schooling (e.g., Stipek & Mac-Iver, 1989), at least in Western cultures. In these cultures, mothers tend to be optimistic about their children and attribute their positive behaviors to personality rather than to situational factors (Gretarsson & Gelfand, 1988; see also Mills & Rubin, 1992). Parents' expectations of their children depend on the child's age: Parents are less likely to view preschoolers' negative behavior as intentional (i.e., as dispositional) than they are older children's negative behavior (Dix, Ruble, Grusec, & Nixon, 1986). This may account for children's assumptions that only positive behaviors by others are intentional (Jones & Thomson, 2001; Miller & Aloise, 1989; but see Leslie, Knobe, & Cohen, 2006). In the academic domain, parents tend to attribute their children's success to ability and their failure to a lack of effort (e.g., Holloway & Hess, 1982; Rytkonen, Aunola, & Nurmi, 2005). This esteem-enhancing orientation dovetails with teachers' expectations of achievement, which are initially centered on effort and task completion, not outcome (Blumenfeld, Hamilton, Bossert, Wessels, & Meece, 1983). Stipek and Mac Iver (1980) discuss preschoolers' educational context as an influence on their perceptions of self-

competence, citing teachers' use of corrective rather than normative feedback, and their emphasis on completion of work and positive feedback for it, as sources of children's academic optimism. By the third grade, children receive increased evaluative feedback, which, combined with the ability to engage in self-reflection, lends itself to a more realistic view of their own abilities.

As explanations of the positivity bias, accounts of adaptive immaturity and socialization raise more questions than answers about how these factors contribute to the bias and how they might transact in development. If the positivity bias is an evolutionary characteristic that is adaptive in early childhood, it should be expected to be manifested cross-culturally. However, socialization is likely to bolster or constrain this proclivity according to cultural demands, leading to variability in expression of the bias. While they cannot speak directly to these issues, cross-cultural data shed light on socialization influences on the positivity bias. There is evidence of cross-cultural similarity in children's attributional style, with an initial emphasis on situational explanations for behavior (see Miller, 1984). For example, comparisons of 8-, 11-, and 15-year-old Hindu and American children revealed no significant between-group differences in attributions about prosocial and deviant behaviors, with the majority of both groups emphasizing situational over dispositional factors. Subsequent research indicated that both Hindu and American children's attribution styles were concrete and event-based, with similar references to social, spatial, and temporal aspects of events (Miller, 1986). Similarities in attributional style led to the conclusion that early attribution is constrained by cognitive conceptual structures that guide thinking about people rather than by sociocultural context alone. With age, there are significant linear increases in dispositional explanations by American children and situational explanations by Hindu children (Miller, 1984). By adulthood, these differences have become quite strong, with Americans giving greater weight to dispositional factors than to situational factors in judging causes of social and deviant behavior, particularly for negative events (Miller, 1984).

Cross-cultural research on self-perceptions of ability indicates that European American children rate themselves as more competent than do children from other cultures (Henderson, Marx, & Kim, 1999; Jambunathan & Burts, 2003; Jambunathan & Counselman, 2004). For example, European American preschoolers' self-perceptions of cognitive and physical competence and of peer acceptance are higher than those of Asian Indian children living in Asia but not than those of Asian Indian preschoolers living in the United States (Jambunathan & Counselman, 2004). Henderson et al. (1999) found that American elementary school children had higher levels of perceived competence than did Japanese or Korean children. These differences may be due to the promotion of high self-esteem by American parents (e.g., Henderson et al., 1999) and an emphasis on self-effacing behaviors in Eastern cultures (Bond, Leung, & Wan, 1982; see also

Lee, Cameron, Xu, Fu, & Board, 1997). Thus, socialization may play a stronger part in children's early conceptions of ability than in basic judgments about situational versus dispositional attributions about behavior, although methodological differences may account for these findings. For example, much of the cross-cultural person-perception research examines attributions about others, whereas research on competence concerns the self. Given the strong emphasis on self-esteem in American society, responses of U.S. children might have differed had they been asked to make personality attributions about themselves.

To summarize, both evolutionary and socialization accounts have been proposed as explanations of the positivity bias. Cognitive processes (irrespective of whether they are viewed as evolutionary cognitive immaturities) may constrain socialization effects by guiding children's attention to particular aspects of events, thereby contributing to some early cross-cultural similarities in attributions. However, cross-cultural data suggest that attributions vary as a function of domain, with marked differences in self-competence judgments at an early age but similarities in general attributional style that may persist until late childhood.

### Recommendations for Future Research

Because the positivity bias has surfaced largely as a by-product of personality-understanding research in general, little is known about its prevalence, the factors that contribute to it, and its potential significance and trajectory over the course of childhood. Systematic research is needed that is aimed at addressing each of these issues.

### The Positivity Bias as a Profile of Childhood Personality Attribution

It is important to determine to what extent the positivity bias is a normative feature of particular developmental periods and whether it characterizes the stable attributional style of a subgroup of children. While individual differences have not been a focus of research, not all children exhibit a positivity bias (e.g., Benenson & Dweck, 1986; Boseovski & Lee, 2006; Stipek & Tannatt, 1984). Boseovski and Lee (2006) found that approximately 5%–10% of children made negative trait attributions even in the face of multiple positive behavioral exemplars. Moreover, some children exhibit a "hostile attribution bias" that leads them to interpret the intentions or behaviors of others negatively (e.g., Dodge, 1980; Dodge & Frame, 1982; Feldman & Dodge, 1987; see also Leslie et al., 2006). Accordingly, a primary goal for future research is to study systematically the prevalence of the positivity bias and other potential personality attribution profiles. It may be possible to classify children along a continuum that captures negative, neutral,

and positive attributional styles and examine these profiles in relation to social-cognitive functioning. Indeed, the majority of social information processing research has focused on problem behaviors, not competent behaviors (Nelson & Crick, 1999). Current personality-understanding paradigms (e.g., trait labeling) could be used to unearth these profiles, but it will be crucial to use within-subject designs that assess different aspects of personality reasoning and cohesion of responses across different domains of personality reasoning.

New methodology for studying the positivity bias is also essential, as it is unknown which factors are most salient in early personality judgments. Aspects of children's folk theories of mind (e.g., emotions) and biology (e.g., physical states) are especially relevant, given that these pertain to everyday behavioral explanations (e.g., Gopnik & Meltzoff, 1997). Examining children's use of contextual information to explain positive or negative behavior or outcomes can provide insight about the positivity bias. For example, children with a positivity bias may take into account situational factors as explanations of negative behavior to a greater degree than do children who do not have the bias. This possibility could be tested by presenting children with actors who behave positively or negatively across situations and varying the mental states associated with these outcomes. For example, participants might be told that an actor committed a transgression, but that the actor was upset because the actor's parents had left on a trip. Participants could then make inferences about why the actor behaved this way (trait vs. transient emotion). Presenting different permutations (e.g., negative vs. positive outcomes and negative vs. positive mental states) would reveal the degree to which children may take into account situational explanations of positive or negative behavior, as well as the conditions under which they "discount" negative personality attributions and endorse positive personality attributions. While this approach has been used to examine attributions about achievement-related emotion (e.g., see Weiner, 1994), it has not been used to study evaluative dispositional attributions about other people (e.g., niceness, meanness).

### Sources of Individual Differences in the Positivity Bias

Assessment of individual differences will provide insight into the factors that contribute to the positivity bias, such as socioeconomic status (SES) and parenting/family interaction style. Low SES is a risk factor for negative developmental outcomes (see Duncan, Brooks-Gunn, & Klebanov, 1994), and children in impoverished environments may be exposed to excessive adversity that affects their interpretation of the social world. There are links between SES and maladaptive social information processing (e.g., Cutting & Dunn, 1999; Schultz & Shaw, 2003; Weiss, Dodge, Bates, & Pettit, 1992). For example, 3- and 4-year-olds from low-SES backgrounds perform more poorly on theory-of-mind tests than do peers from middle-class families (Cutting & Dunn, 1999). This may set the stage for maladaptive social interactions,

given the importance of mental-state understanding for personality reasoning (see Yuill & Pearson, 1998). Thus, it is important to examine links between SES and profiles of personality attribution. Certainly, a maladaptive information processing pattern is likely to characterize select children from low-SES backgrounds, as personal attributes (e.g., child temperament) and contextual support (e.g., school environment) serve as resilience factors (see Mendez, Fantuzzo, & Cicchetti, 2002).

Parenting style is another potential source of individual differences in the positivity bias. Not all parents are excessively optimistic about their children. An authoritarian parenting style, characterized by high power assertion and low warmth, is associated with negative attributions about children's behavior. Authoritarian mothers are more likely to attribute their preschoolers' prosocial behaviors to situational factors and their aggressive behaviors to dispositional factors, whereas authoritative mothers, whose parenting is demanding but warm and supportive, show the opposite pattern (Coplan, Hastings, Lagace-Seguin, & Moulton, 2002; see also Hastings & Rubin, 1999). Such effects may be even greater for families dealing with psychopathology. Parents who behave abusively toward their children tend to make negative attributions about their children's intentions (see Bugental & Johnston, 2000). These attributions may affect the children's self-perceptions, particularly if parents label the children negatively (see Heyman, 2008), and may affect their attributional styles as well (see Miller, 1995, regarding intergenerational transmission of attribution style). The influence of parent attributional profiles in the context of other factors (e.g., positive reinforcement at school, the child's temperament) is unclear, and addressing this question will be a fruitful direction for future research.

### Implications of the Positivity Bias and Issues of Developmental Timing

Ultimately, it is important to determine how individual differences in personality attribution style relate to children's everyday functioning. It is likely that the positivity bias has implications for a range of intrapersonal factors (e.g., self-concept) and interpersonal factors (e.g., relationships). Among these are peer relations, as the preschool and early school years are critical for establishing successful friendships, and children who behave cooperatively toward their peers experience an easier transition from preschool to kindergarten (e.g., Ladd & Price, 1987). If an early positivity bias is normative, its absence may be a marker for later social difficulties. There are links between positive attributions and peer sociometric status: Given indirect evidence that a character's intentions were positive, rejected children ascribed negative intentions to the character, whereas popular children ascribed positive intentions to the character (Keane & Parrish, 1982). A positivity bias may serve to facilitate social interactions by enabling children to give their peers the "benefit of the doubt" in neutral or ambiguous interactions (see Dodge, Murphy, & Buchsbaum, 1984). Longitudinal work is needed to determine the developmental

trajectory of the positivity bias beyond middle childhood and its implications for relationships. It has also been speculated that an early positivity bias may be predictive of “benign attributional bias,” a distinct profile of prosocial behavior that has been documented in a subgroup of young adolescents (Nelson & Crick, 1999).

Notably, benefits of the positivity bias are likely to be restricted to specific developmental periods, and it is essential to examine issues relevant to timing. In particular, it is increasingly important with age to acquire a realistic sense of the self and others. For example, children need to be able to take responsibility for their academic performance, and receiving negative feedback in the face of failure or inadequacy may evoke self-regulatory processes that motivate change (see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Indeed, there are documented negative effects of unrealistically high self-esteem (see Baumeister, Campbell, Krueger, & Vohs, 2003). With respect to judgments about others, a certain amount of vigilance is necessary to maintain personal safety (Rozin & Royzman, 2001), particularly as children become increasingly independent. However, it is overly simplistic to claim that there is a transition from a positivity bias in childhood to a negativity bias in adulthood, in that these biases are context dependent. For example, adults show a positivity bias in adjusting to adverse circumstances, such as poor health (see Taylor & Armor, 1996). Accordingly, a challenge for future research is establish the degree to which the positivity bias is optimal or detrimental, both as a function of domain and developmental period.

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