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# Children's Conscience During Toddler and Preschool Years, Moral Self, and a Competent, Adaptive Developmental Trajectory

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## Abstract

We investigated whether children's robust conscience, formed during early family socialization, promotes their future adaptive and competent functioning in expanded ecologies. We assessed two dimensions of conscience in young children ($N = 100$) at 25, 38, and 52 months in scripted laboratory contexts: internalization of their mothers' and fathers' rules, observed when the child was alone, and empathic concern toward each parent, observed in simulated distress paradigms. We also assessed the child's self-perception on moral dimensions (the *moral self*), using a puppet interview at 67 months. At 80 months, parents and teachers produced an overall measure of competent, adaptive functioning by rating children on multiple scales of competent, prosocial, rule-abiding behavior and antisocial behavior. As expected, children with histories of a stronger internalization of both parents' rules were more competent and better socialized; for maternal rules, that link was mediated by the child's moral self. The link between the child's history of empathy toward the mother and future socialization was also significant, but it was not mediated by the moral self. This study elucidates the roles of classic components of morality—moral conduct, affect, and self—as antecedents of an adaptive developmental trajectory from toddler to early school age.

### Keywords

early conscience; moral self; competence; antisocial behavior; longitudinal studies

Almost universally, parents implicitly believe that internalized values and standards of behavior—or *conscience*—instilled during early years of socialization in the family are the key rudiments of the child's future moral character and the inner moral compass. Parents hope that children's strongly internalized values form a robust moral foundation that will promote children's adaptive, competent developmental trajectories and attenuate risks of



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potential disruptive influences, often contradictory to the family's values, that are inevitably encountered in expanded ecologies beyond the family. Hoffman (1983) emphasized that internalization of parental rules that occurs in early parent–child control encounters is a key aspect of a foundation for the child's future morality. He also emphasized the importance of early experiences of empathy toward others' distress as a building block for future conscience. In their programmatic reviews, Radke-Yarrow, Zahn-Waxler, and Chapman (1983) and Eisenberg, Fabes, and Spinrad (2006) emphasized the importance of early empathy in parent–child relations as a foundation for future moral sensibility and prosociality.

Little research, however, has directly empirically tested, in a rigorous longitudinal design and using robust behavioral measures, a model that assumes that a strong early conscience developed in the context of family socialization indeed promotes children's adaptive, competent prosocial functioning in future expanded social ecologies. Even less research has examined possible developmental mechanisms linking children's early behavioral internalization of mothers' and fathers' rules and early empathy to parents with a future well-socialized trajectory.

In our research program, we have proposed that children's early conscience, a system that comprises self-regulated conduct and moral emotions and begins to emerge in the toddler years, is indeed perhaps the single most powerful factor that promotes adaptive, competent functioning and prevents destructive, antisocial, and callous behavior problems. Following a long tradition of research on morality that has differentiated between moral conduct and moral affect (e.g., Rest, 1984), we have proposed (Kochanska, 1993) and demonstrated empirically (Aksan & Kochanska, 2005) that children's rule-compatible, internalized conduct (typically assessed as rule-compatible behavior without surveillance) and their moral emotions, including empathy, constitute two main components of early conscience. Children who comply with rules even without supervision, who feel empathic concern toward others' distress, and who feel discomfort when they commit transgressions typically show broadly ranging aspects of positive developmental adaptation. By contrast, children who disregard parental rules and fail to feel empathy at others' distress often manifest a host of behavior problems (Blair, 1995; de Wied, Goudena, & Matthys, 2005; Eisenberg, Fabes, & Spinrad, 2006; Frick, Bodin, & Barry, 2000; Kochanska, 1993; Lykken, 1995; Thompson, 2006; Thompson, Meyer, & McGinley, 2006).

In earlier analyses, we have found that children's strong internalization of maternal rules at preschool age was associated with fewer antisocial behavior problems approximately a year later (Kochanska, Barry, Aksan, & Boldt, 2008). Hastings, Zahn-Waxler, Robinson, Usher, and Bridges (2000) showed that children's empathic concern toward others did indeed prevent future externalizing problems: Greater concern at 4–5 years predicted decreases in the stability and severity of externalizing problems by 6–7 years, and greater concern at 6–7 years predicted decreases in the stability of problems by 9–10 years. To our knowledge, however, no study has simultaneously examined, using behavioral measures, the two key dimensions of early conscience—internalization of rules of conduct and empathic concern to others' distress—as factors that indeed help children embark on a future prosocial, adaptive, and competent developmental trajectory with few signs of antisocial behavior problems.

The first goal of this study was to gather empirical evidence in support of such a model. We observed children's internalization of parental rules and empathic concern toward parents at 25, 38, and 52 months. Empathy in children has been mostly studied using variations of verbal report measures, although Zahn-Waxler and colleagues (e.g., Zahn-Waxler & Radke-Yarrow, 1990; Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992) pioneered the use of scripted paradigms to elicit empathy, and Eisenberg and colleagues introduced measures

of facial and physiological responses (see Eisenberg, Fabes, & Spinrad, 2006, for review). To collect robust behavioral data, at 25, 38, and 52 months we implemented scripted laboratory paradigms that specifically called for children's behavioral internalization of parental rules and paradigms that elicited children's affective response to parental distress. We then examined those measures as the predictors of children's adaptive, competent functioning assessed at 80 months, the early school age. By that time, all children have entered broader social ecologies beyond the family. During that transition, they have encountered multiple new challenges, including the need to navigate academic and peer environments with a potential for engaged, adaptive, competent, rule-compatible, and prosocial conduct, as well as a potential for rule breaking and deviance (Deater-Deckard, 2001; Patterson, DeBaryshe, & Ramsey, 1989; Rimm-Kaufman & Pianta, 2000).

In assessing children's competent, adaptive future functioning, we followed Masten et al.'s (1995) classic view of competence as a broad construct that describes how effectively a child meets his or her salient developmental tasks. In childhood, those tasks encompass engaged school functioning, getting along with peers (being socially accepted, being prosocial, having friends), and respecting and observing rules. We employed a combination of well-established instruments that target those constructs, and we used multiple informants (mothers, fathers, teachers) to obtain a broad measure of child functioning at home and in the expanded ecology of school.

The second goal of the study was to examine why children's early conscience might promote the development of adaptive, competent conduct. Mechanisms of such links are not well understood. To propose a possible process linking early conscience and future adaptive trajectory, we have drawn on the classic and recent interests in children's moral self or moral identity in older children and adolescents.

The child's moral self became the topic of interest in the 1980s. Students of early morality (Emde, Biringen, Clyman, & Oppenheim, 1991; Emde, Johnson, & Easterbrooks, 1987) proposed that the early moral self emerges by age 3, in that the child begins to be keenly cognizant of right and wrong and those feelings become part of self-awareness. Scholars of prosocial behavior pointed out the potent role of the child's self-concept, or a view of self as good and moral, in promoting honest or prosocial acts (Grusec & Redler, 1980); that idea was revisited recently by Froming, Nasby, and McManus (1998), who reasoned that children with prosocial self-schemas behave more prosocially. Harter (1998) argued that between early and middle childhood, personal standards represented in one's self increasingly assume a guiding role for conduct. More recently, proponents of the self-determination theory (Deci & Ryan, 1985; Grolnick, Deci, & Ryan, 1997; Ryan & Deci, 2000) have proposed a motivational continuum from external to integrated regulation. The latter refers to true internalization that involves the incorporation of values and rules into one's self.

Researchers studying morality have recently shown a strong renewed interest in the moral self and moral identity (e.g., Lapsley & Narvaez, 2004a). Lapsley and Narvaez (2004b) argued that individuals with moral identities have easily accessible moral schemas that provide a direct link to moral actions. Hardy and Carlo (2005) explicitly proposed that children's moral identity is a source of their moral motivation and conduct. Thompson et al. (2006) have linked the emerging sense of moral agency and prosocial behavior with early self-understanding and autobiographical memory. Nucci (2004) stressed reciprocal links between moral conduct and moral identity.

Across those diverse bodies of literatures, a consensus emerges. Those scholars acknowledge that there is a large gap in our developmentally informed understanding of ontogeny, determinants, and the self-regulatory role of the moral self; that those ideas have

rarely been studied empirically; and that very little is known about early developmental processes involved in the emergence of the moral self and its links to future functioning, especially in the longitudinal sense.

One limitation of the extant work on moral identity is its predominant focus on older children and adolescents, likely because of the difficulty of assessing self-perceptions in young children. However, Eder (1990), using a puppet interview, demonstrated that even 3- to 4-year-old children are capable of describing themselves on psychologically relevant dimensions and that such "psychological selves" are meaningful and longitudinally stable.

We have adapted Eder's method to study young children's perceptions of themselves on several dimensions of early conscience (e.g., following parental rules, feeling guilty after misbehavior, confessing and apologizing after transgressions). The dimensions were originally derived from maternal reports and validated against child behavior (Kochanska, DeVet, Goldman, Murray, & Putnam, 1994). An earlier study using the puppet interview strategy with 5½-year-olds (Kochanska, 2002a) indeed revealed that children's moral selves were internally consistent and that they appeared to mediate links between children's compliance and noncompliance with mothers at toddler and preschool age, and children's rule-compatible behavior at 5½. However, the measures of moral self and rule-compatible behavior were concurrent, precluding strong inferences about mediation.

In the present study, we hypothesized that a young child gradually comes to represent, in his or her view of self, cumulative memories of his or her experiences of compliance with parental rules and empathy to others. Those experiences become incorporated in the view of oneself as a good, moral individual. Consequently, the child comes to view him- or herself as someone who embraces rules and standards, avoids misbehavior, and is empathic and compassionate toward others. Such a moral self then serves as an inner guide for future adaptive conduct. Thus, the child's moral self mediates the links between the history of early conscience and future competent, adaptive functioning.

Although to our knowledge such a model has not been directly tested, it is compatible with several bodies of extant research. Attributional scholars have long advocated a view that rule-compatible behavior that cannot be attributed to salient external contingencies becomes incorporated into the view of self, and the self then guides future behavior such that the behavior is consistent with self-perception (Bem, 1967; Dienstbier, 1984; Festinger, 1957; Grusec & Redler, 1980). Blasi (1984), within a different theoretical tradition, reached similar conclusions about one's moral identity as a key guide for moral action.

The final goal was to examine those questions in the context of the child's past relationships with his or her two parents. Historically, different ideas have been expressed about the roles of the two parents in moral development—sometimes emphasizing the father, as in the early psychoanalytic theory, and sometimes the mother or the main caregiver, as in the attachment theory. Nevertheless, the dearth of research on differences and similarities in moral socialization in mother–child and father–child relationships is surprising (Hastings, Utendale, & Sullivan, 2007). Only a very few moral development studies have used observational data from mothers and fathers (e.g., Groenendyk & Volling, 2007; Walker & Taylor, 1991). In the absence of rigorous research, differences and similarities between the two relationships with regard to moral socialization remain speculative.

In this study, we obtained all conscience measures from parallel paradigms that involved the child with each parent. We then used two approaches to examine whether the child's history of behavioral internalization of parents' rules and empathy toward parents predicted children's self-perception on moral dimensions and, in turn, adaptive, competent functioning. First, we examined the child's cumulative history of internalized conduct and

empathy in the family, including both parents. Second, we examined the history of each parent–child relationship separately.

## Method

### Participants

Data came from a longitudinal study of two-parent families of infants. Parents volunteered in response to ads posted in various community media and venues in eastern Iowa. They represented a broad range of income and education. Regarding ethnic background, 90% of mothers were White, 3% Hispanic, 2% African American, 1% Asian, 1% Pacific Islander, and 3% other non-White. Among fathers, 84% were White, 8% Hispanic, 3% African American, 3% Asian, and 2% other. In 20% of families, one or both parents were non-White.

This article uses data from the assessments at 25 months ($N$ = 100; 50 girls), 38 months ($N$ = 100; 50 girls), 52 months ($N$ = 99; 49 girls), 67 months ($N$ = 92; 45 girls), and 80 months ($N$ = 90; 43 girls). At each assessment, female visit coordinators conducted two 2- to 3-hr laboratory sessions, one with each parent (in randomized order; at 38 months there was one home and one laboratory session, with each parent participating in half of each session). The sessions were videotaped for future coding.

Children's internalization of each parent's rules and empathy toward each parent's distress were observed in scripted paradigms at 25, 38, and 52 months. Their moral self was assessed in a puppet interview at 67 months, and their adaptive, competent, prosocial, and antisocial behavior was rated by both parents and teachers at 80 months. Parents were paid approximately $25–$30 per hour of participation and received small gifts, and teachers were paid a total of $20.

All observed constructs were coded by multiple coding teams. At least 20% of cases were used for reliability; coders also frequently realigned to prevent drift. Variables were substantially aggregated across codes, coded segments, contexts, and occasions of measurements to yield robust final constructs (Rushton, Brainerd, & Pressley, 1983).

### Children's Internalization of Mothers' and Fathers' Rules at 25, 38, and 52 Months

**Paradigms—**At the beginning of each parent–child session in the laboratory, the visit coordinator pointed out a low shelf with very attractive toys and objects (adapted to children's age); she asked the parent to designate all the objects as off limits to the child and to enforce the prohibition throughout the session. At the end of the session, the child was observed alone for 8 min after the parent had reissued the prohibition, asked the child to engage in a dull sorting task set directly in front of the shelf, and left the room (more details of the procedure and coding are in Kochanska, Coy, & Murray, 2001).

**Coding—**Child behavior was coded for each of ninety-six 5-s segments as looking at toys without touching, other activity (e.g., snacking), sorting, touching toys gently, self-correcting (beginning to touch and terminating the attempt spontaneously), and deviating (playing with the toys). Latencies to look and to touch were also coded. Reliabilities were (kappas for child behavior first, alphas for latencies next): at 25 months, .96, and .99–1.00; at 38 months, .95 and 1.00; at 52 months, .95 and 1.00.

**Data reduction—**The relative scores for each behavior (tallies divided by the number of coded segments) and the latencies were submitted to principal components analysis. At each age and for each parent (as in an earlier longitudinal study, Kochanska et al., 2001), the first,

most robust factor reflected the child's internalization of the prohibition. That factor encompassed low deviation score, high score on looking without touching, and long latencies to look and touch. Those factor scores were used as the measures of the child's internalization of the parent's rule (details are available from the first author).

Two types of composites were created for the analyses. To examine the child's cumulative history of internalization of both parents' rules, we averaged across the scores with the mother and the father at each assessment (average $r = .66$) and then across the assessments from 25 to 52 months (the average $r = .43$), creating the child's overall score of history of internalization in the family ($M = 0.00$, $SD = 0.72$).

To examine the history of internalization with each parent, we created separate scores for the child's internalization of maternal rules ($M = 00$, $SD = 0.79$) and paternal rules ($M = 00$, $SD = 74$) across the 25- to 52-month assessments. The average *r*s across time were, for children and mothers, .43; for children and fathers, .33.

## Children's Empathic Concern to Mothers' and Fathers' Distress at 25, 38, and 52 Months

**Paradigms—**The scripted simulated distress paradigm was based on the classic work of Zahn-Waxler and Radke-Yarrow (e.g., Hastings et al., 2000; Zahn-Waxler et al., 1992). The parent had been first coached by the visit coordinator and given a detailed script. The parent and child then played with a pounding block toy; as the child was hammering down the pegs, the parent pretended that the child had hit his or her finger, simulated distress and pain, and finally said the finger was all better. For control purposes, the salience of the parent's simulated expression was coded from 1 = *not salient* to 3 = *very salient*. There were no significant differences between mothers and fathers in that regard. Furthermore, parental salience of expression did not correlate with children's empathy composite scores (described below).

**Coding—**The coding was adapted from the earlier work by Zahn-Waxler et al. (1992) and our own work (Kochanska, Forman, & Coy, 1999). It combined the microscopic coding of the child's various facial, behavioral, and verbal expressions of concern, given for every 5-s segment (up to 36 segments), and overall ratings of child distress and empathic concern, given for the entire paradigm. Reliabilities were: at 25 months, $\alpha$s > .70 and $\kappa$s > .66; at 38 months, $\alpha$s > .95 and $\kappa$s > .64; at 52 months, $\alpha$s > .97 and $\kappa$s > .61 (except one that was . 57).

**Data reduction—**Data reduction encompassed the aggregation of the microscopic 5-s behavioral codes and the overall ratings. For each parent and child at each assessment, composites were created by averaging the pertinent codes for (a) empathy (e.g., looking at parent, sad/concerned expression, gestures of reparation/affection, verbal statements about reparation and verbal concern about parent); (b) guilty distress (e.g., looking away, avoidance, squirming, covering face, blaming self); and (c) reversed signs of lack of concern (e.g., happy expression, continuing uninterrupted play). Then, the final composite was created by standardizing and averaging empathy, guilty distress, reversed lack of concern, overall rating of child distress, and overall rating of child empathic concern. Cronbach's alphas for the composites were (with mother and father, respectively): at 25 months, .71 and .78; at 38 months, .73 and .73; and at 52 months, .84 and .79.

The approach to data reduction paralleled that adopted for internalization of rules. We created the child's overall score of history of empathy to both parents by averaging across the scores with the mother and the father at each assessment (average $r = .40$). Although the scores were only weakly correlated across assessments (average $r = .16$), their respective correlations with the purported mediator (the child's moral self at 67 months) and the

outcome (the child's adaptive, well-socialized conduct at 80 months) were all very similar in magnitude and direction. Consequently, we decided to create a composite of empathy toward the parents across the assessments, from 25 to 52 months, analogous to that for internalization of rules ($M = 0.00$, $SD = 0.41$).

Then, to examine the history of empathy with each parent, we created separate scores for the child's empathy to mother and father across the 25- to 52-month assessments. Again, children's scores were only weakly correlated across 25, 38, and 52 months: With mothers, there was only one marginal $r = .19$; with fathers, one significant $r = .22$, $p < .05$. However, again the correlations between the separate scores at all three ages and the child's moral self at 67 months and well-socialized conduct at 80 months were all very similar in magnitude and direction; thus, we created composites across the assessments, one for the child with mother ($M = -0.01$, $SD = 0.45$) and one for the child with father ($M = 0.00$, $SD = 0.49$).

At all studied ages, children's internalization of rules and their empathy were unrelated for the global, across-parent scores, and for the parent-specific scores. The correlations ranged from −.08 to .12.

## Children's Moral Self, 67 Months

**Paradigm—**The format had been originally adapted from Eder's (1990) assessment of children's selves, and an earlier version was successfully used before (Kochanska, 2002a). The visit coordinator used two puppets to anchor the opposite ends of each of 31 items. The items all pertained to dimensions of early conscience (e.g., internalization of rules, guilt, empathy, apology, etc.). Each item was presented as a very brief scenario, with one puppet presenting one option and the other puppet presenting the opposite (using equally self-righteous voices and varying the high and low end across the puppets). For example, one puppet would say, "When I break something, I try to hide it so no one finds out," and the other one would say "When I break something, I tell someone about it right away." The visit coordinator would then ask the child: "What about you? Do you try to hide something that you broke or do you tell someone about it right away?" Typically, children quickly understood the rhythm of the interview and began to point to one of the puppets without prompting.

The child's response to each item was coded as 0 if the child chose the puppet that anchored the low end, as 2 if he or she chose the puppet that anchored the high end, and as 1 if he or she hesitated or endorsed both (e.g., "I am sometimes like him and sometimes like him"). We then added all 31 items into a composite of the child's moral self (Cronbach's $\alpha = .65$; $M = 48.09$, $SD = 7.59$).

## Children's Competent, Adaptive Functioning, 80 Months

Several well-established instruments were administered to parents and teachers to elicit scores of children's well-socialized, adaptive, competent conduct along with scores of antisocial conduct problems. In each family, the mother and the father completed their questionnaires, and they gave the teacher versions to a teacher who knew the child well. The teacher then returned them to our laboratory. All aggregation described below was performed on standardized scores.

**MacArthur Health Behavior Questionnaire (HBQ; Boyce et al., 2002; Essex et al., 2002)—**The HBQ assesses many dimensions of child competence as well as problems. It was given to both parents and teachers. To assess child competence, we used three scales (alphas for mothers first, fathers second, teachers third). They included School Engagement (eight items; e.g., excited, happy about school; $\alpha = .85, .89, .77$), Peer Acceptance/Peer

Relations (eight items for parents, 11 for teachers; e.g., has lots of friends, gets along well with peers; α = .87, .78, .82), and Prosocial Behavior (20 items; e.g., offers to share, helps, tries to be fair, considerate of others; α = .89 .88. .95). To assess problem behaviors, we averaged across the items that depict child overt aggression (four items; e.g., taunts, kicks, gets in fights; α = .67, .60, .63). Depending on the scale, items are rated from 1 (not at all like child) to 4 (very much like child), or from 1 (does not apply) to 3 (certainly applies).

**Child Symptom Inventory–4 (CSI-4; Gadow & Sprafkin, 2002; Gadow, Sprafkin, & Nolan, 2001; Sprafkin, Gadow, Salisbury, Schneider, & Loney, 2002)—**CSI-4 corresponds to *DSM–IV* (American Psychiatric Association, 2000). For both parents' and teachers' forms, we used Symptom Severity scoring, where each item is rated from 0 (*never*) to 3 (*very often*). For each informant, we used the scores for oppositional defiant disorder (ODD; e.g., defies, refuses, deliberately annoys), and conduct disorder (CD; e.g., bullies others, lies).

**Inventory of Callous–Unemotional Traits (ICU; Frick, 2003; Frick et al., 2000; Frick & White, 2008)—**ICU captures absence of guilt and empathy, and disregard for rules and standards of behavior (e.g., does not care if s/he is in trouble, does not like to put time into doing things well, feelings of others are unimportant). ICU was given to parents only. We computed the mean of all 24 items for each parent. Alphas were .87 mothers and . 82 for fathers.

**Final composites of children's competent, adaptive functioning—**First, for each informant (mother, father, teacher), we created a score of child competent, adaptive, prosocial behavior that included the three HBQ scales (School Engagement, Peer Acceptance/Peer Relations, and Prosocial, Adaptive Behavior).

Next, for each informant, we created a score of poorly socialized, antisocial behavior that included, for each parent, four scores (CSI-4 ODD and CD, ICU Callous–Unemotional Traits score, and HBQ overt aggression), and for teachers, three scores (CSI-4 ODD and CD, and HBQ overt aggression).

Then, for each informant, we created the final composite of children's competent, adaptive, functioning by subtracting the score of poorly socialized, antisocial behavior from the score of competent, adaptive, prosocial behavior for mothers ($M = 0.00$, $SD = 1.37$, range = −6.56 – 2.04), fathers ($M = 0.00$, $SD = 1.19$, range = −3.80 – 2.52), and teachers ($M = 0.00$, $SD = 1.39$, range = −5.10 – 1.35).

Finally, we aggregated those scores across the three informants. Cronbach's alpha for that multi-informant and multidimensional composite score, with all 20 scales included, seven for each parent and six for teacher (with all the disruptive antisocial scales reversed) was very high (.85), and no scale appeared to undermine it. This overall multi-informant composite ($M = -0.02$, $SD = 1.13$, range −5.18 to 1.63), was used as the outcome measure of the child's competent, adaptive functioning in all the analyses.

## Results

### Overview of the Analyses

The analyses progressed in two stages. First, in three regression equations, we examined (a) whether the child's overall cumulative history of internalization of both parents' rules and cumulative history of empathy toward both parents, from 25 to 52 months, predicted competent, adaptive functioning at 80 months; (b) whether those overall scores of internalization and empathy predicted the child's moral self at 67 months; and (c) whether

the expected mediation was present, such that the positive effects of history of internalization and empathy on competent, adaptive functioning were due to the child's moral self (and thus, whether the moral self predicted competent functioning, with the simultaneous drop in the significance of the effects of internalization and empathy).

Thus, in equations (a) and (b), there were two steps: Step 1, where the child's gender was entered as a covariate, due to significant differences in competent, adaptive functioning, girls ($M = 0.36$, $SD = 0.69$), boys ($M = -0.37$, $SD = 1.34$), $t(88) = 3.23$, $p < .01$; and Step 2, where the child's overall history of internalization of parental rules and the history of his or her empathy to the parents (the two predictors) were both entered. Equation (c) included the same Step 1 and Step 2; at Step 3, the child's moral self (the mediator) was added. This approach is consistent with the sequential testing of mediation (Baron & Kenny, 1986). Those sequential regressions were followed by the testing of the indirect effects of internalization and empathy on competent, adaptive functioning, as mediated through the moral self, using the bootstrapping method (Preacher & Hayes, 2008).

Second, we examined the same developmental process separately for mother–child and father–child relationships. The same approach to the analyses was followed, with sequential regressions first, followed by the testing of indirect effects.

Prior to conducting all regressions, all interaction effects involving child gender were tested, found to be nonsignificant, and thus were excluded. Child gender was retained as the covariate in Step 1.

## Children's Early Conscience (Internalization of Rules and Empathy) with Parents and Competent, Adaptive Developmental Trajectory

The three sequential regressions are presented in Table 1. As expected, both the history of the child's early internalization of parental rules and the history of his or her empathy toward the parents predicted children's competent, adaptive functioning, rated by both parents and teachers at 80 months. Children who had showed stronger internalization and who had been more empathic from 25 to 52 months were seen as more competent, prosocial, engaged with school and peers, and less callous, antisocial, and disruptive.

The second equation examined whether children's early internalization and empathy predicted their view of self on moral dimensions. As predicted, children with stronger histories of internalization of parental rules from 25 to 52 months perceived themselves as more moral at 67 months, but their history of empathy had no effect on their self-perception.

The third equation tested the moral self as a mediator of children's future competent, adaptive functioning. When considered together with the first two equations, the results suggested the presence of partial mediation effect for children's internalization of parental rules: Those children who had showed stronger internalization from 25 to 52 months came to see themselves as more moral, and those self-perceptions, in turn, predicted more competent, adaptive functioning rated by both parents and teachers at 80 months. The effect of internalization dropped when moral self was added to the equation, indicating the indirect effect, but it remained significant, suggesting the presence of partial mediation.

In contrast, moral self did not appear to mediate the link between children's history of empathy toward the parents and future competent, adaptive functioning: The history of empathy did not predict moral self, and the effect of empathy on competent, adaptive functioning did not drop when entered along with the moral self.

We followed these analyses with the bootstrapping method (Preacher & Hayes, 2008) to test the indirect effects of both predictors on the outcome, competent, adaptive functioning, with child gender as a covariate (see Figure 1). These analyses were consistent with the regressions. In Figure 1, the effects of the two predictors, internalization of rules and empathy, on the mediator (the moral self) are depicted, respectively, as path $a_1$ and path $a_2$. Path $a_1$ was significant, $b = 2.58$, $SE = 1.30$, $p = .051$, 95% CI [−0.01, 5.18], and path $a_2$ was not ($b = -1.42$, $SE = 2.01$, *ns*).

The effect of the mediator on the outcome is depicted as path b. Path b was significant, $b = .04$, $SE = 0.01$, $p < .01$, 95% CI [0.02, 0.07].

Path $c_1$ represents the effect of internalization on the outcome without the mediator considered, and path $c_1'$ represents the effect of internalization on the outcome with the mediator considered. A drop in significance in $c_1'$ compared with $c_1$ indicates the presence of mediation (or an indirect effect).

Path $c_1$ was significant, $b = .58$, $SE = 0.17$, $p < .01$, 95% CI [0.24, 0.92]. Path $c_1'$ was also significant, $b = .47$, $SE = 0.17$, $p < .01$, 95% CI [0.14, 0.80]. The drop in the magnitude of the effect was significant, $b = .11$, $SE = 0.08$, $p < .05$, 95% CI [0.01, 0.35]. This latter effect (visualized as path $a_1b$ in Figure 1) reflects the presence of mediation or an indirect effect. More precisely, the data indicate partial mediation, because path $c_1'$ remained significant.

Path $c_2$ represents the effect of empathy on the outcome without the mediator considered, and path $c_2'$ represents the effect of empathy on the outcome with the mediator considered. Both paths were significant: $c_2$, $b = .52$, $SE = 0.26$, $p = .051$, 95% CI [−0.003, 1.05]; and $c_1'$, $b = .58$, $SE = 0.25$, $p < .05$, 95% CI [0.08, 1.09]. This pattern indicates that empathy predicted the outcome and that this effect was not mediated by the moral self (and the path $a_2b$ was not significant, $b = -.06$, $SE = 0.10$, *ns*).

## Children's Conscience at Toddler and Preschool Age in the Mother–Child Relationship and Competent, Adaptive Developmental Trajectory

The first three sequential regressions are presented in Table 2. Both the history of the child's internalization of the mother's rules and the history of his or her empathy to the mother's distress, from 25 to 52 months, predicted children's adaptive, well-socialized conduct rated by both parents and teachers at 80 months. The second equation showed that, as predicted, children with stronger histories of internalization of maternal rules from 25 to 52 months perceived themselves as more moral at 67 months, but the history of empathy toward the mother had no such effect. The third equation showed that moral self predicted children's future adaptive, well-socialized conduct; at the same time, the effect of internalization dropped to marginal, but the effect of empathy remained unchanged.

When considered together, the results suggested the presence of the expected mediation effect for children's internalization of maternal rules: Those children who had shown stronger internalization of maternal rules from 25 to 52 months came to see themselves as more moral at 67 months, and that, in turn, predicted more adaptive, well-socialized conduct as rated by both parents and teachers at 80 months. Moral self did not appear to mediate the link between children's history of empathy toward the mother and future antisocial conduct.

We followed these analyses with the bootstrapping method (Preacher & Hayes, 2008), analogous to those reported above. The findings are presented in Figure 2 (the notation parallels Figure 1).

The results were again consistent with the regressions. The effect of one predictor, internalization of maternal rules, on the mediator (the moral self), path $a_1$, was significant, $b = 3.44$, $SE = 1.14$, $p < .01$, 95% CI [1.18, 5.71]. The effect of the other predictor, empathy, on the mediator, path $a_2$, was not significant ($b = .22$, $SE = 1.78$, *ns*).

The effect of the mediator on the outcome, path b, was significant, $b = .04$, $SE = 0.01$, $p < .01$, 95% CI [0.02, 0.07]. The effect of internalization on the outcome without the mediator considered, path $c_1$, was significant, $b = .41$, $SE = 0.16$, $p < .01$, 95% CI [0.10, 0.72]. The effect of internalization on the outcome with the mediator considered, path $c_1'$, was not significant ($b = .27$, $SE = 0.16$, *ns*). This drop was significant, $b = .14$, $SE = 0.08$, $p < .05$, 95% CI [0.03, 0.36], indicating the presence of full mediation or an indirect effect (visualized as path $a_1b$ in Figure 2).

The effects of empathy on the outcome without and with the mediator considered, paths $c_2$ and $c_2'$, respectively, were both significant: $c_2$, $b = .55$, $SE = 0.24$, $p < .05$, 95% CI [0.07, 1.04], and $c_2'$, $b = .55$, $SE = 0.23$, $p < .05$, 95% CI [0.08, 1.01]. The history of empathy to the mother predicted the outcome, and the effect was not mediated by the moral self (path $a_2b$, $b = .01$, $SE = 0.09$, *ns*).

## Children's Early Conscience (Internalization of Rules and Empathy) in the Father–Child Relationship and Competent, Adaptive Developmental Trajectory

The analyses paralleled those for the mothers and children. The first three sequential regressions are presented in Table 3.

As was the case for mothers and children, the history of the child's internalization of the father's rules predicted children's competent, adaptive functioning at 80 months, such that children with stronger histories of internalization of paternal rules from 25 to 52 months were rated as more competent. In contrast to mothers and children, the child's history of his or her empathic concern in response to the father's distress did not have a significant effect. Also in contrast to mothers and children, internalization of paternal rules or empathy toward the father did not predict the child's moral self at 67 months.

Although the results of the latter equation precluded the presence of mediation, we conducted the third equation for the sake of completeness. Unsurprisingly, children's stronger internalization of paternal rules and their moral self predicted more competent, adaptive functioning at 80 months (and the effect of internalization remained robust when moral self was added). There was no effect for the history of empathy.

The results of the bootstrapping method (Preacher & Hayes, 2008) were again consistent with the regressions (see Figure 3). Neither predictor had a significant effect on the mediator (the moral self), path $a_1$ ($b = .76$, $SE = 1.26$, *ns*) and path $a_2$ ($b = -2.31$, $SE = 1.75$, *ns*).

The effect of the mediator on the outcome, path b, was significant, $b = .05$, $SE = 0.01$, $p < .01$, 95% CI [0.02, 0.08]. The effect of internalization on the outcome, without the mediator considered, path $c_1$, was significant, $b = .56$, $SE = 0.17$, $p < .01$, 95% CI [0.23, 0.90]; its effect on the outcome with the mediator considered, path $c_1'$, was also significant, $b = .53$, $SE = 0.16$, $p < .01$, 95% CI [0.21, 0.84], and there was no drop in the effect, indicating the absence of mediation or indirect effect, path $a_1b$ ($b = .04$, $SE = 0.07$, *ns*).

The effects of empathy on the outcome, without or with moral self considered, paths $c_2$ and $c_2'$, respectively, were both nonsignificant: $c_2$, $b = .14$, $SE = 0.23$, *ns*, and $c_2'$, $b = .25$, $SE = 0.22$, *ns*.

## Discussion

Moral development scholars have urged researchers to focus on early precursors of morality (Walker, 2004). This article addresses, in a multitrait, multimethod, multiassessment, and multi-informant design, a model that proposes that children's early conscience, formed in parent–child relations in the toddler years, leads to significant future benefits—and specifically, that it can promote and buttress an adaptive, competent developmental pathway during school years. Given that early school age has long been seen as the context for the coalescence of antisocial and disruptive trajectories (Patterson et al., 1989), elucidating toddler- and preschoolage factors that promote competent, adaptive, and prosocial functioning during the transition to school is important.

Furthermore, we examine one potential mechanism mediating such beneficial effects: the child's self-perception on moral dimensions, or the moral self. Those developmental processes are examined in mother–child and father–child relationships.

We examined two main dimensions of the child's early conscience— internalization of the parent's rules of behavior, assessed when the child believed he or she was alone, and empathic concern expressed in response to the parent's distress. We then asked whether a strong early history of internalization of parental rules and a strong history of empathy toward the parents predicted the child's future competent and adaptive functioning, with few antisocial behavior problems, in multiple spheres of children's lives, including school and peer contexts.

The answer to this question seems to be mostly yes. As expected, children who as toddlers and preschoolers had a strong history of internalized, out-of-sight compliance with both parents' rules in the absence of supervision were competent, engaged, prosocial, and had few antisocial problems at early school age. The same was true for children who had a strong history of empathic responding, although that was only true for empathy toward mothers.

Why were the links between internalization of rules and future functioning more clear-cut than the links between empathy and future outcomes? It is possible that our coding system did not differentiate well between sympathy and personal distress. Although empathy has been typically associated with competence, the evidence has been mixed (Eisenberg, Spinrad, & Sadowsky, 2006; Gill & Calkins, 2003). Sometimes only sympathy has been associated with developmental competence, whereas personal distress has even been linked to externalizing problems (Eisenberg, Fabes, & Spinrad, 2006; Eisenberg, Spinrad, & Sadowsky, 2006). In the future, a more sensitive coding system may reveal more specific findings; it may also yield measures that are more stable over time (note that in this study, empathy scores correlated relatively weakly over time).

We further asked what mechanism accounted for those beneficial effects and explored whether the child's self-perceptions on moral dimensions, or moral self, served that role. The moral self or moral identity has long been viewed as a critical regulatory system in morality (Blasi, 1984; Froming et al., 1998; Grusec & Redler, 1980; Hardy & Carlo, 2005; Lapsley & Narvaez, 2004a, 2004b; Nucci, 2004; Thompson et al., 2006). Although subject to much theoretical reflection, moral self-perceptions in young children have rarely, to our knowledge, been studied empirically. In fact, the need for such research has been explicitly reiterated.

We have posited that the child's past frequent engagement in moral conduct and moral emotions leads to the incorporation of moral dimensions into his or her self-view as a good, moral individual, and that view, in turn, serves to guide future functioning. We have shown

in a different sample that 5-year-old children's views of themselves as moral were robustly associated with moral conduct, but those relations were concurrent and thus open to alternative interpretations (Kochanska, 2002a).

The present study replicates and extends those earlier findings. Consistent with the theoretical hypothesis that moral self guides adaptive and prosocial conduct, we found that children's moral self robustly predicted future competent, adaptive behavior, regardless of other predictors. Children who at 67 months described themselves as highly moral were rated at 80 months as highly competent, prosocial, and having few antisocial problems.

The formal tests of mediation supported the posited developmental process but only for one of the causal chains: Children with strong histories of internalized conduct with respect to parental prohibition from age 2 to 4½ indeed perceived themselves as good, moral individuals at 5½, and those views, in turn, fostered their competent, adaptive functioning at early school age.

The posited developmental process was not supported for children's empathy, because past experience of empathy—with both parents, or with either parent—did not influence the child's self-perception as good or moral. How can we interpret this pattern of results? We propose the following argument.

In our assessments of internalized conduct, when children were left with the tempting toys, they likely experienced a conflict between wanting to touch the toys and wanting to comply with the parental rule. Those who scored high on the internalization measure chose compliance with parental prohibition in the absence of any tangible external cues, salient threats, parental directives, or reinforcements (recall that the child was alone in the room, and the parent issued no further directives during the paradigm).

Consequently, those children very likely made internal attributions for their rule-compatible behavior. In situations where no or few salient contingencies exist, the child comes to "own" the behavior; it becomes integrated with his or her self, and from then on becomes an inner guide and takes on a regulatory role, leading to a well-socialized pattern of conduct. This inference is consistent with large bodies of research (Bem, 1967; Deci & Ryan, 1985; Dienstbier, 1984; Dienstbier, Hillman, Lehnhoff, Hillman, & Valkenaar, 1975; Festinger, 1957; Froming et al., 1998; Grolnick et al., 1997; Grusec & Goodnow, 1994; Lepper, 1983; Ryan & Deci, 2000; Walters & Grusec, 1977), as well as with theories of moral identity and moral agency (Blasi, 1984; Hardy & Carlo, 2005; Lapsley & Narvaez, 2004a).

Exactly how moral self executes its inner guidance role is not well understood (Hardy & Carlo, 2005). Several mechanisms are possible, including the avoidance of cognitive dissonance, the anticipation of guilty feelings, or automatic regulation due to high accessibility of moral schemas (Lapsley & Narvaez, 2004b). Future research should address those hypotheses.

More theoretical reflection is also needed regarding conceptual distinctions and developmental roots regarding the three sets of constructs: internalized behavioral rules, internalized disposition for empathy, and the moral self. All three can be seen as internal guidance systems. It is possible, from one perspective, to think of all three as forms of selfhood, with the first two representing self as subject (the "I," James, 1890) or procedural knowledge (Emde et al., 1991), and the third representing self as object of reflection (the "me").

The analyses of the separate mother–child and father–child relationships revealed further complexities. For the former, the effect of past internalized conduct on future competent,

adaptive functioning was fully mediated by the moral self, whereas for the latter, the effect was unmediated. Although in father–child relationships internalization of paternal rules did predict competent, adaptive functioning, that link was not mediated through the child's self-perceptions.

Why did this causal process operate within the early mother–child relationship but not within the father–child relationship? It is possible that the differences between the effects of the child's experiences in the two relationships simply reflect the more significant and more expanded role that mothers play in young children's lives. Research suggests that mothers spend more time with their young children than fathers (Parke & Buriel, 2006) and engage in more caregiving and comforting (Lamb, 1997; Parke, 2002). Indeed, this was true in our sample. For example, at toddler age, mothers reported spending on average almost 51 hr per week with the child, whereas fathers reported 32 hr, $t(100) = 9.06$, $p < .001$. Furthermore, 45 mothers compared with 90 fathers reported working full time. Consequently, the mother–child relationship during the toddler age may have been closer and more mutually responsive than the father–child relationship, rendering compliance with maternal prohibitions more emotionally significant to the child than compliance with paternal prohibitions. This emotional significance may serve to intensify the conflict children experienced in our paradigms.

Why did child empathy fail to predict moral self? Children's experiences in our empathy paradigms were quite different from those in the prohibition paradigms. The empathy contexts entailed salient external or situational contingencies and fairly dramatic situational cues. The parent first simulated distress, and then typically expressed affection and reassurance toward the child, all potent emotional stimuli for a young child (Radke-Yarrow et al., 1983). Consequently, the above analysis of children's attributional processes likely did not apply.

Although not mediated by the moral self, the child's empathy toward the mother's distress did predict future adaptive, competent functioning. Intervening mechanisms other than self-perception are possible. For example, the child's strong response to maternal pain may indicate a close, reciprocal, communal relationship discussed earlier. In fact, in another longitudinal sample, we found that a reciprocal, positive mother–child relationship in infancy predicted children's strong empathy to maternal distress, assessed in paradigms analogous to the current study at toddler age (Kochanska et al., 1999). Such mutually positive relationships have often been seen as fostering positive socialization trajectories (Kochanska, 2002b; Maccoby, 2007).

Possible gender effects will need more attention in future research. In this study, there were no significant interactions involving child gender, and thus, given the modest sample size, we did not examine girls' and boys' relationships with mothers and fathers separately. However, it is entirely possible that dynamics of moral socialization between the parent and same- or opposite-gender child may be different. Future research with larger samples may elucidate those questions.

The strengths of this study include a longitudinal design, and robust and repeated behavioral assessments of early conscience, parallel for the mother–child and father–child dyads, allowing us to examine the child's cumulative history of internalization and empathy in the family, as well as separate processes operating in the two relationships. Those assessments shared no method variance with the measures of the mediator, the child's moral self, obtained in an interview, or with the measures of the outcome, the child's competent, adaptive functioning, obtained from multiple informants. Our confidence in the findings is strengthened by the use of the bootstrapping method of testing the indirect effects,

considered statistically more powerful than the Sobel test and specifically suitable for small or moderate sample sizes (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Shrout & Bolger, 2002).

Additionally, in supplemental analyses (not reported) we conducted the main regressions for mother–child and father–child dyads, controlling for children's early manifestations of developmental competence (self-regulated compliance with each parent) and behavior problems (dysregulated, angry defiance), observed at 15 months, prior to all the assessments in this study. The findings were completely unchanged.

The limitations include the normative nature and relatively low diversity of the sample. In this well-functioning group of families, by and large, children showed developmentally appropriate restraint when alone with the tempting toys and discomfort when they believed they had caused the parents pain. Research with high-risk children and with more stressed and diverse families is likely to reveal additional insights.

As children navigate the transition from the family to extended social ecologies, they inevitably encounter multiple challenges. Children who remain competent, engaged with school and peers, prosocial and rule abiding, and not susceptible to experiences and events that increase risk for antisocial conduct, are at a great developmental advantage. Consequently, research that elucidates early socialization processes that may promote such a trajectory continues to be significant. It appears that early conscience can serve as a powerful positive factor in that respect.

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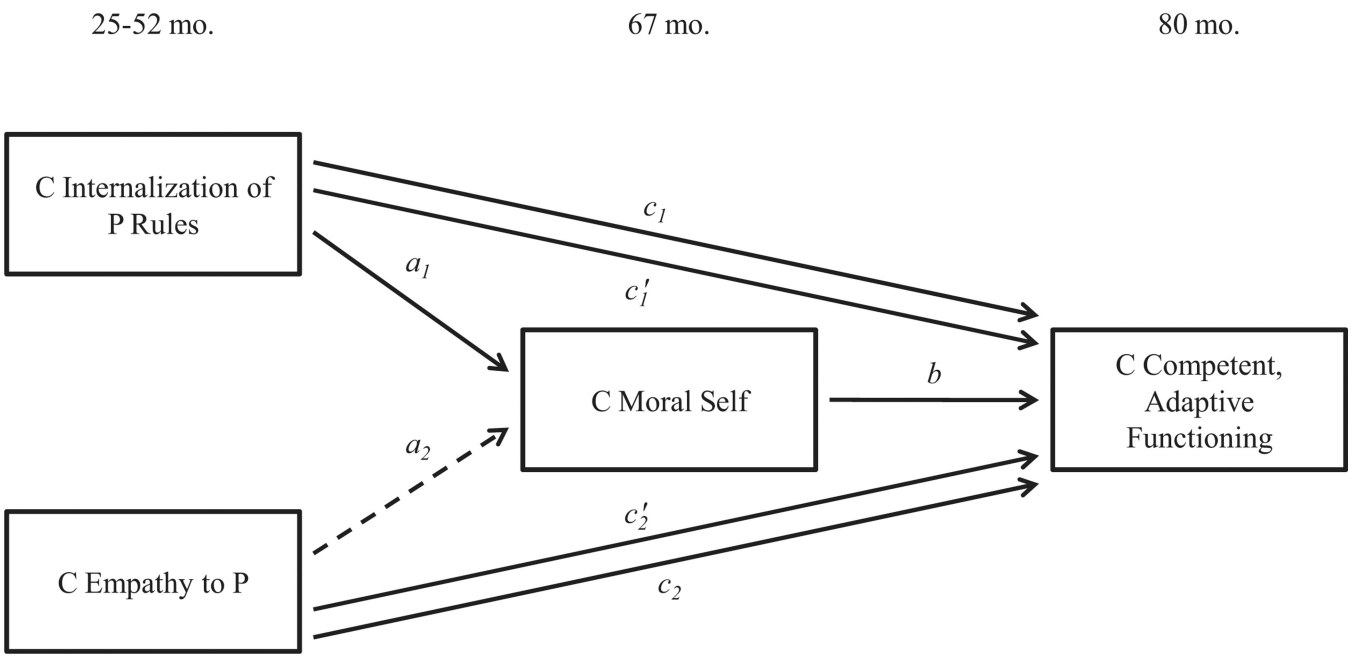


**Figure 1.**

Early conscience, moral self, and competent, adaptive functioning: The mediation model for children's cumulative experience in the family. Although not depicted in the model, child gender is a covariate. Paths $a_1$, $a_2$: the effect of the independent variable (internalization, empathy) regressed on the mediator variable (moral self). Path $b$: the effect of the mediator variable regressed on the dependent variable (competent, adaptive functioning). Paths $c_1$, $c_2$: the effect of the independent variable on the dependent variable without the mediator considered. Paths $c_1^{'}$, $c_2^{'}$: the effect of the independent variable on the dependent variable with the mediator considered. Solid lines represent significant effects and dashed lines represent nonsignificant effects. P = parents; C = child; mo. = months.

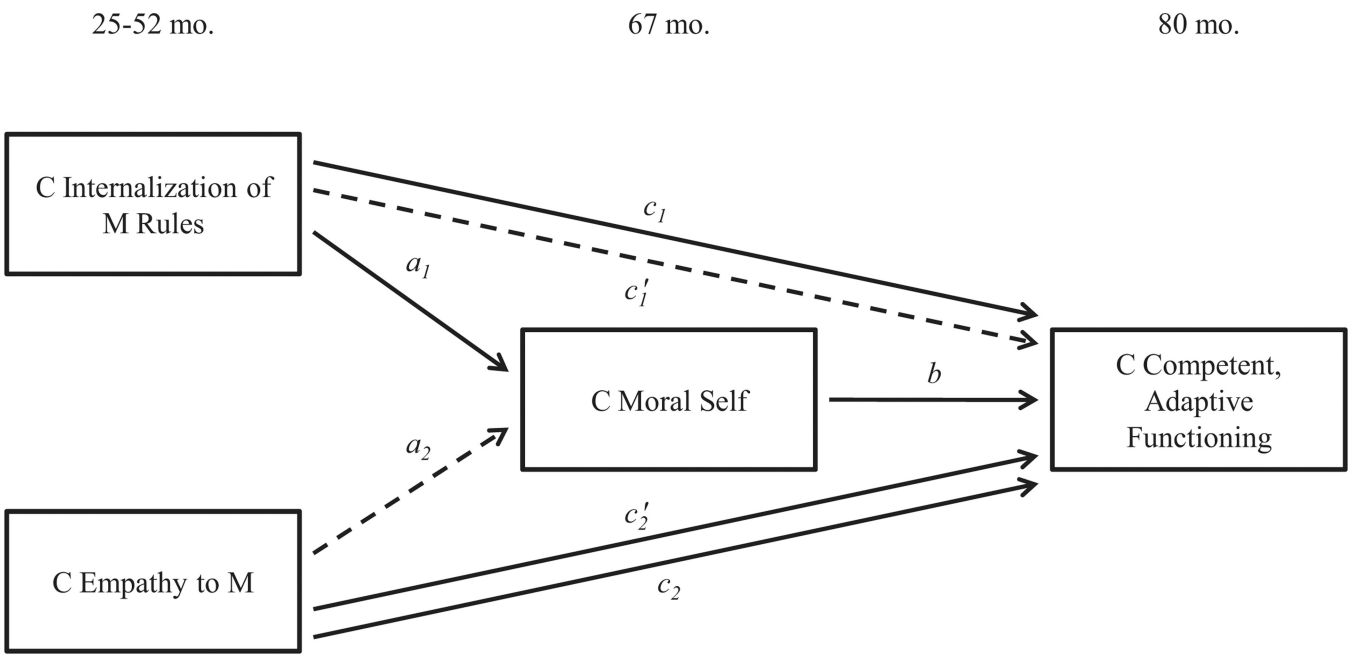


**Figure 2.**

Early conscience, moral self, and competent, adaptive functioning: The mediation model for mother–child dyads. Although not depicted in the model, child gender is a covariate. Paths $a_1$, $a_2$: the effect of the independent variable (internalization, empathy) regressed on the mediator variable (moral self). Path $b$: the effect of the mediator variable regressed on the dependent variable (competent, adaptive functioning). Paths $c_1$, $c_2$: the effect of the independent variable on the dependent variable without the mediator considered. Paths $c_1', c_2'$: the effect of the independent variable on the dependent variable with the mediator considered. Solid lines represent significant effects and dashed lines represent nonsignificant effects. M = mother; C = child; mo. = months.

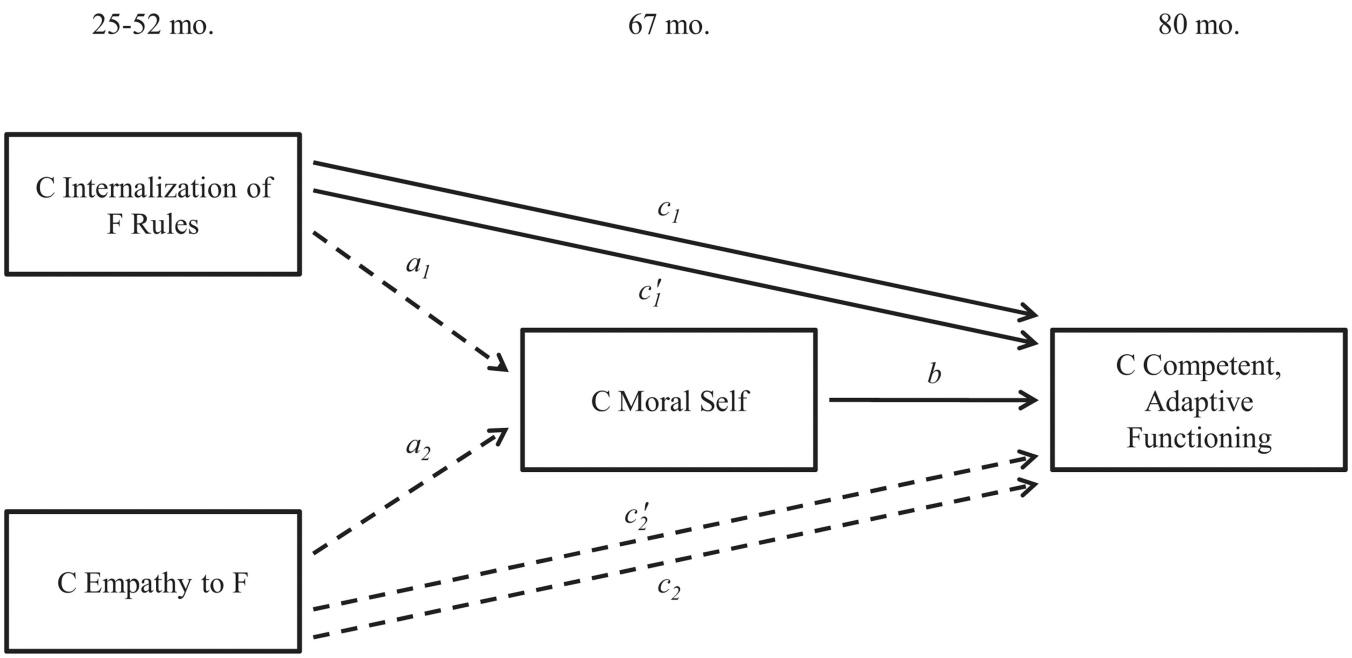


**Figure 3.**

Early conscience, moral self, and competent, adaptive functioning: The mediation model for father–child dyads. Although not depicted in the model, child gender is a covariate. Paths $a_1$, $a_2$: the effect of the independent variable (internalization, empathy) regressed on the mediator variable (moral self). Path $b$: the effect of the mediator variable regressed on the dependent variable (competent, adaptive functioning). Paths $c_1$, $c_2$: the effect of the independent variable on the dependent variable without the mediator considered. Paths $c_1', c_2'$: the effect of the independent variable on the dependent variable with the mediator considered. Solid lines represent significant effects and dashed lines represent nonsignificant effects. F = father; C = child; mo. = months.

## Table 1

Conscience in Parent–Child Relationship (25–52 Months) and Child Moral Self at 67 Months as Predictors of Competent, Adaptive Functioning at 80 Months

| | | Step 1 | | | | Step 2 | | | | Step 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Step** | **Predictor** | **β** | ***B*** | ***SE B*** | **95% CI** | **β** | ***B*** | ***SE B*** | **95% CI** | **β** | ***B*** | ***SE B*** | **95% CI** |
| | Equation 1: Child conscience measures as predictors of child competent, adaptive functioning | | | | | | | | | | | | |
| 1[a] | C Gender | −.33*** | −0.73 | 0.23 | [−1.19, −0.28] | −.08 | −0.19 | 0.25 | [−0.68, 0.30] | | | | |
| 2[b] | C Internalization of M and F rules | | | | | .38**** | 0.62 | 0.25 | [0.28, 0.95] | | | | |
| | C Empathy to M and F | | | | | .21* | 0.56 | 0.26 | [0.04, 1.08] | | | | |
| | Equation 2: Child conscience measures as predictors of child moral self | | | | | | | | | | | | |
| 1[c] | C Gender | −.16 | −2.36 | 1.59 | [−5.52, 0.81] | −.08 | −1.17 | 1.81 | [−4.77, 2.43] | | | | |
| 2[d] | C Internalization of M and F rules | | | | | .23* | 2.51 | 1.25 | [0.03, 5.00] | | | | |
| | C Empathy to M and F | | | | | −.08 | −1.41 | 1.98 | [−5.35, 2.54] | | | | |
| | Equation 3: Child conscience measures and moral self as predictors of child competent, adaptive functioning | | | | | | | | | | | | |
| 1[e] | C Gender | −.32*** | −0.71 | 0.23 | [−1.16, −0.26] | −.09 | −0.20 | 0.25 | [−0.69, 0.30] | −.07 | −0.15 | 0.24 | [−0.62, 0.32] |
| 2[f] | C Internalization of M and F rules | | | | | .36** | 0.58 | 0.17 | [0.24, .92] | .29*** | 0.47 | 0.17 | [0.14, 0.80] |
| | C Empathy to M and F | | | | | .20− | 0.52 | 0.26 | [−0.00, 1.05] | .22** | 0.58 | 0.25 | [0.08, 1.09] |
| 3[g] | C Moral self | | | | | | | | | .30*** | 0.04 | 0.01 | [0.02, 0.07] |

*Note.* M = mother; F = father; C = child. C Gender coded as 0 (girls) and 1 (boys). C Competent, adaptive functioning conduct rated by both parents and teachers at 80 months. C Internalization of M and F rules and C Empathy to M and F observed at 25, 38, and 52 months; C Moral self observed at 67 months. The three equations test the three conditions for mediation: Independent variables predicting the outcome (Equation 1, two steps); independent variables predicting the mediator (Equation 2, two steps); the mediator predicting the outcome, with the effects of independent variables dropping (Equation 3, three steps).

[a] $R^2 = .11$, $F(1, 88) = 10.42^{***}$.

[b] $R^2 = .26$, $F(3, 86) = 10.14^{****}$.

[c] $R^2 = .02$, $F(1, 88) = 2.19$.

[d] $R^2 = .07$, $F(3, 86) = 2.25^{\dagger}$.

[e] $R^2 = .10$, $F(1, 86) = 9.74^{***}$.

[f] $R^2 = .24$, $F(3, 84) = 8.85^{****}$.

[g] $R^2 = .32$, $F(4, 83) = 9.93^{****}$.

[†] $p < .10$.

[*] $p < .05$.

[**] $p < .025$.

[***] $p < .01$.

[****] $p < .001$.

**Table 2**

Conscience in Mother–Child Relationship (25–52 Months) and Child Moral Self at 67 Months as Predictors of Competent, Adaptive Functioning at 80 Months

| | | Step 1 | | | | Step 2 | | | | Step 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Step** | **Predictor** | **β** | ***B*** | ***SE B*** | **95% CI** | **β** | ***B*** | ***SE B*** | **95% CI** | **β** | ***B*** | ***SE B*** | **95% CI** |
| | Equation 1: Child conscience measures as predictors of child competent, adaptive functioning | | | | | | | | | | | | |
| 1[a] | C Gender | −.33*** | −0.73 | 0.23 | [−1.19, −0.28] | −.15 | −0.35 | 0.23 | [−0.81, 0.12] | | | | |
| 2[b] | C Internalization of M rules | | | | | .31*** | 0.45 | 0.15 | [0.15, 0.75] | | | | |
| | C Empathy to M | | | | | .24** | 0.60 | 0.24 | [0.13, 1.07] | | | | |
| | Equation 2: Child conscience measures as predictors of child moral self | | | | | | | | | | | | |
| 1[c] | C Gender | −.16 | −2.36 | 1.59 | [−5.52, 0.81] | −.02 | −0.32 | 1.68 | [−3.66, 3.01] | | | | |
| 2[d] | C Internalization of M rules | | | | | .33*** | 3.29 | 1.10 | [1.11, 5.47] | | | | |
| | C Empathy to M | | | | | .00 | 0.02 | 1.74 | [−3.43, 3.48] | | | | |
| | Equation 3: Child conscience measures and moral self as predictors of child competent, adaptive functioning | | | | | | | | | | | | |
| 1[e] | C Gender | −.32*** | −0.71 | 0.23 | [−1.16, −0.26] | −.16 | −0.36 | 0.24 | [−0.83, 0.11] | −.16 | −0.36 | 0.23 | [−0.81, 0.10] |
| 2[f] | C Internalization of M rules | | | | | .28*** | 0.41 | 0.16 | [0.10, 0.72] | .19† | 0.27 | 0.16 | [−0.04, 0.59] |
| | C Empathy to M | | | | | .22** | 0.55 | 0.24 | [0.07, 1.04] | .22** | 0.55 | 0.23 | [0.08, 1.01] |
| 3[g] | C Moral self | | | | | | | | | .28*** | 0.04 | 0.01 | [0.01, 0.07] |

*Note.* M = mother; C = child. C Gender coded as 0 (girls) and 1 (boys). C Competent, adaptive functioning rated by both parents and teachers at 80 months. C Internalization of M rules and C Empathy to M observed at 25, 38, and 52 months; C Moral self observed at 67 months. The three equations test the three conditions for mediation: independent variables predicting the outcome (Equation 1, two steps); independent variables predicting the mediator (Equation 2, two steps); the mediator predicting the outcome, with the effects of independent variables dropping (Equation 3, three steps).

[a] $R^2$ = .11, $F(1, 88) = 10.42^{***}$.

[b] $R^2$ = .25, $F(3, 86) = 9.67^{****}$.

[c] $R^2$ = .02, $F(1, 88) = 2.19$.

[d] $R^2$ = .12, $F(3, 86) = 3.82^{**}$.

[e] $R^2$ = .10, $F(1, 86) = 9.74^{***}$.

[f] $R^2$ = .23, $F(3, 84) = 8.21^{****}$.

[g] $R^2 = .29$, $F(4, 83) = 8.61^{****}$.

† $p < .10$.

* $p < .05$.

** $p < .025$.

*** $p < .01$.

**** $p < .001$.

**Table 3**

Conscience in Father–Child Relationship (25–52 Months) and Child Moral Self at 67 Months as Predictors of Competent, Adaptive Functioning at 80 Months

| | | Step 1 | | | | Step 2 | | | | Step 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Step** | **Predictor** | **β** | ***B*** | ***SE B*** | **95% CI** | **β** | ***B*** | ***SE B*** | **95% CI** | **β** | ***B*** | ***SE B*** | **95% CI** |
| | Equation 1: Child conscience measures as predictors of child competent, adaptive functioning | | | | | | | | | | | | |
| 1[a] | C Gender | −.33*** | −0.73 | 0.23 | [−1.19, −0.28] | −.14 | −0.31 | 0.25 | [−0.82, 0.20] | | | | |
| 2[b] | C Internalization of F rules | | | | | .38**** | 0.59 | 0.16 | [0.26, 0.92] | | | | |
| | C Empathy to F | | | | | .06 | 0.14 | 0.23 | [−0.33, 0.60] | | | | |
| | Equation 2: Child conscience measures as predictors of child moral self | | | | | | | | | | | | |
| 1[c] | C Gender | −.16 | −2.36 | 1.59 | [−5.52, 0.81] | −.17 | −2.60 | 1.84 | [−6.27, 1.06] | | | | |
| 2[d] | C Internalization of F rules | | | | | .08 | 0.85 | 1.21 | [−1.56, 3.25] | | | | |
| | C Empathy to F | | | | | −.14 | −2.11 | 1.70 | [−5.48, 1.26] | | | | |
| | Equation 3: Child conscience measures and moral self as predictors of child competent, adaptive functioning | | | | | | | | | | | | |
| 1[e] | C Gender | −.32*** | −0.71 | 0.23 | [−1.16, −0.26] | −.13 | −0.29 | 0.26 | [−0.80, 0.22] | −.07 | −0.16 | 0.24 | [−0.64, 0.33] |
| 2[f] | C Internalization of F rules | | | | | .36*** | 0.56 | 0.17 | [0.23, 0.90] | .34*** | 0.53 | 0.16 | [0.21, 0.84] |
| | C Empathy to F | | | | | .06 | 0.14 | 0.23 | [−0.32, 0.60] | .11 | 0.25 | 0.22 | [−0.18, 0.69] |
| 3[g] | C Moral self | | | | | | | | | .33**** | 0.05 | 0.01 | [0.02, 0.08] |

*Note.* F = Father; C = Child. C Gender coded as 0 (girls) and 1 (boys). C Competent, adaptive functioning rated by both parents and teachers at 80 months. C Internalization of F rules and C Empathy to F observed at 25, 38, and 52 months; C Moral self at 67 months. The three equations test the three conditions for mediation: independent variables predicting the outcome (Equation 1, two steps); independent variables predicting the mediator (Equation 2, two steps); the mediator predicting the outcome, with the effects of independent variables dropping (Equation 3, three steps).

[a] $R^2 = .11$, $F(1, 88) = 10.42^{***}$.

[b] $R^2 = .22$, $F(3, 86) = 8.32^{****}$.

[c] $R^2 = .02$, $F(1, 88) = 2.19$.

[d] $R^2 = .05$, $F(3, 86) = 1.39$.

[e] $R^2 = .10$, $F(1, 86) = 9.74^{***}$.

[f] $R^2 = .21$, $F(3, 84) = 7.48^{****}$.

$^{g}R^2 = .32$, $F(4, 83) = 9.63^{****}$.

* $p < .05$.

** $p < .025$.

*** $p < .01$.

**** $p < .001$.