



Moral identity and psychological distance: The case of adolescent parental socialization

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A B S T R A C T

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A mediation model using a sample of 1059 adolescents (56% girls; M age = 16.02, $SD = 1.37$) tested relations between parenting, adolescent moral identity, and the formation of psychological distance towards others. In short, adolescent moral identity mediated relations between parenting and the ways in which adolescents oriented others in their psychological space. Specifically, adolescent-report parenting style dimensions (responsiveness, autonomy-granting, and demandingness) were positively related to the formation of both private and public moral identity dimensions (internalization and symbolization), which were in turn associated with a tendency to construct psychological distance towards others (negatively with social dominance orientation and positively with the circle of moral regard). Therefore, one way parents may be able to influence how adolescents relate to their peers is by fostering a sense of moral identity in their children through authoritative parenting.

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In the high school setting, recent increases in maladaptive social behaviors such as aggression, bullying, and school violence have prompted investigation of the psychological roots of adolescents' treatment of others (SSOCS, 2005). As principals, social workers, counselors, and parents seek to understand what might lead youth to behave harmful ways to others, they must confront potential influences that range from cultural and societal factors, to community and neighborhood characteristics, to school and family dimensions, all the way down to aspects of individual personality (e.g. Helfritz & Stanford, 2006) and biology (e.g. Susman & Stoff, 2005). One important psychological factor that has been linked to various forms of antisocial behavior is *psychological distance* (Bandura, 1999; Hewstone, Rubin, & Willis, 2002; Loewenstein & Small, 2007; Staub, 2003). Psychological distance defines how we comparatively orient social objects in our psychological space. This orientation drives our responses to these objects (Brewer, 2007; Liberman, Trope, & Stephan, 2007).

While we know a considerable amount about how psychological distance functions (Bandura, 1999; Pratto, Sidanius, & Levin, 2006; Reed & Aquino, 2003; Staub, 2003; Trope & Liberman, 2003), we know less about how it develops. For instance, we know little about the socialization factors that affect the development of psychological distance, and the underlying mechanisms involved. The purpose of the present study was to explore this issue in adolescence by examining whether

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parental socialization (Baumrind, 1991) affects adolescents' perceptions of psychological distance from others by way of fostering their moral selves (Aquino & Reed, 2002; Blasi, 2004; Hardy & Carlo, in press).

The concept of psychological distance

Psychological distance is a classic idea in social psychology (e.g. Lewin, 1951) that continues to receive a considerable amount of theoretical and empirical attention (for reviews, see Liberman et al., 2007; Martin, 2003). The premise that underlies the psychological distance construct is that people do not interact with other objects as external in some objective sense, but rather in terms of how these objects are comparatively oriented in one's own psychological space. Thus, individuals and groups perceived to be socially proximal versus distal are viewed and treated differently. Psychological distance is typically reflected in socially-defined group boundaries (Brewer, 2007; Liberman et al., 2007), and increased psychological distance has been linked to various antisocial behaviors including aggression (e.g., Bandura, 1999; Staub, 2003), intergroup hostility and conflict (e.g. Hewstone et al., 2002; Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998), and political violence (Bandura, 1999; Staub, 2003), as well as decreased helping (e.g., Loewenstein & Small, 2007). Psychological distance is also a powerful determinant of whether people demonstrate moral regard towards others (Levy, Freitas, & Salovey, 2002; Reed & Aquino, 2003). In fact, experimental manipulations that reduce psychological distance increase prosocial behaviors (e.g. Levine, Prosser, Evans, & Reicher, 2005; Small & Simonsohn, 2008). Therefore, we focus on two aspects of psychological distance: *social dominance orientation* and the *circle of moral regard*.

Social dominance orientation reflects the extent to which a person is willing to endorse ideologies that rationalize group hierarchies—in other words, thoughts, ideas and rationalizations that allow a person to believe that some groups “deserve” to have and maintain superiority and dominance over other groups within a social system. This superior status confers upon those groups a disproportionate privilege over resources within society (Pratto, 1999; Pratto, Sidanius, Stallworth, & Malle, 1994). Social dominance orientation thus reflects perceptions of other groups as *psychologically distal*, and has been shown to be related to a wide range of prejudicial attitudes (Pratto, Sidanius, & Levin, 2006) and other forms of aggression (Bandura, 1999; Staub, 2003).

The second aspect of psychological distance has been called the “circle of moral regard” (Reed & Aquino, 2003). The circle of moral regard is the boundary that defines the individuals and groups for whom a person is willing to exhibit moral concern. This boundary could range from pure self-interest and focus on one's own needs to inclusion of all humanity—and anywhere in between (see Lamont & Molnár, 2002, for a review). Hence the size of the circle of moral regard varies across people. A person with a relatively *expansive* circle of moral regard defines his or her ingroup broadly, rather than focusing on intergroup differences. Accordingly, that person finds even “outsiders” (people of different backgrounds or group affiliations, or even strangers) to be worthy of moral care. The circle of moral regard construct therefore measures perceptions of other individuals as psychologically proximal with highly (ex)clusive group definitions being linked to (less) sharing of limited resources and exhibiting other (anti)prosocial behaviors (Hewstone et al., 2002; Levine et al., 2005; Reed & Aquino, 2003).

Moral development and psychological distance

We know a good amount about how psychological distance functions in the social domain (Pratto et al., 2006; Reed & Aquino, 2003), but we know less about how it develops, and the underlying mechanisms involved. It is possible that the emergence of psychological distance is intertwined with moral development, in that one's perceptions of others may be an expression of his or her understanding of and commitment to morality (Reed & Aquino, 2003). Specifically, scholars have proposed that two key dimensions of morality are justice and care (Gibbs, 2003; Lapsley, 1996; Moshman, 2005). *Justice* is concern with fairness and equality of rights; *care* is the relative focus on one's own needs and desires versus the needs of others. Behaviors pertaining to justice and care (or harm) seem to be universally considered to fall within the moral domain (Shweder, Mahapatra, & Miller, 1990). The two aspects of psychological distance discussed above correspond nicely to the moral principles of justice and care. Social dominance orientation is a “preference for inequality among social groups” (Pratto et al., 1994, p. 741), and thus may be related to a lack of concern for, or at least a lack of deep understanding of, the moral principle of justice. Similarly, the expansiveness of one's circle of moral regard is the degree to which one extends concern for the needs and welfare of a smaller or larger segment of humanity (Reed & Aquino, 2003), and thus pertains to commitment to and understanding of the moral principle of care. Hence, social dominance orientation and the circle of moral regard seem to capture aspects of human social functioning that are widely considered to be moral issues.¹ Based on this proposed connection between psychological distance and moral development, it follows that if part of a person's self-definition involves greater commitment to moral principles, then this more central moral identity should be associated with a lower social dominance orientation and a more expansive circle of moral regard.

¹ Philosophers and psychologists have defined moral behavior as behavior that shows responsiveness to the needs of others (e.g., Eisenberg, 2000; Gilligan, 1982; Kant, 1785/1959). We consider the constructs of social dominance and the circle of moral regard to have moral relevance in this regard. This is because social dominance (circle of moral regard) tends to be negatively (positively) related to other outcomes that reflect a responsiveness to the needs of others. However, it is important to note that the degree of this “moralness” is indeed culturally bounded, and is also determined by beliefs that may exist within a particular cultural milieu. We thank an anonymous reviewer for pointing this out.

The role of moral identity

A construct that captures commitment to moral principles is *moral identity* (Blasi, 1980). Although moral identity is a rich and multifaceted construct (see Hardy & Carlo, *in press*, for a review), one key aspect of moral identity may be that of a cognitive self-schema that is organized around a set of common-language (e.g. being honest, caring, fair, kind) moral trait associations, and is important to the public and private facets of one's identity (Aquino & Reed, 2002; Hardy & Carlo, 2005, *in press*). This way of defining moral identity makes two assumptions: first, the relationship between a person's moral identity and their behavior is at least partially driven by the need to maintain a consistent self-image associated with this moral self-schema (Aquino, Freeman, Reed, Felps, & Lim, *in press*; Blasi, 1993, 2004). Second, a person's moral identity can be thought of as linked to other moral goals and behavioral scripts in an associative network (Aquino & Freeman, *in press*; Aquino & Reed, 2002; Aquino, Reed, Stewart, & Shapiro, 2005; Lapsley & Narvaez, 2004). The strength of this association to the self is referred to as the "self-importance of moral identity" (Aquino & Reed, 2002) such that if a person's moral identity has high (low) importance to their sense of self, then the readiness with which that self-relevant schema may come to mind in different situations and contexts and affect moral judgments and behaviors is high (low).

Moral identity is an important source of moral motivation, leading to greater concordance between one's moral principles and actions (Aquino & Reed, 2002; Bergman, 2004; Blasi, 1995, 2004; Hardy, 2006; Hardy & Carlo, 2005, *in press*). For example, a stronger sense of moral identity predicts higher rates of volunteerism (Aquino & Reed, 2002), and is positively related to perceptual and reflective "moral attentiveness" (Reynolds, 2008, p. 1033), empathy (Detert, Trevino, & Sweitzer, 2008), and other forms of prosocial behavior (Hardy, 2006; Pratt, Hunsberger, Pancer, & Alisat, 2003; Sage, Kavussanu, & Duda, 2006). Higher self-importance of moral identity also predicts lower rates of aggression (Barriga, Morrison, Liao, & Gibbs, 2001), less unethical behaviors such as lying (Aquino et al., *in press*) and academic cheating (Reynolds & Ceranic, 2007), less moral disengagement (Detert et al., 2008), and lower tendencies to persecute outgroups (Finnel, Reed, Aquino, & Thau, *submitted for publication*; Reed & Aquino, 2003).

The present conceptualization of moral identity has two different aspects that, according to Erikson (1964), define an authentically experienced identity: 1) it is rooted in the core of one's being, and 2) it involves being true to oneself in action. These properties are embodied in two dimensions of moral identity that Aquino and Reed (2002) refer to as *internalization* and *symbolization* (see Appendix A for the scale). *Internalization* is the degree to which moral principles are central to one's self-concept, and concerns the private or personal aspect of the self. *Symbolization* reflects the extent to which moral principles are expressed outwardly to others, and concerns the public or social aspect of the moral self (Aquino & Reed, 2002).

Blasi and colleagues were the first to cogently point out that the *likelihood* that moral thought results in moral behavior *decreases* if "being moral" is not an important part of a person's self-definition (Blasi, 2004). Put another way, assessing the extent to which a person possesses a highly self-important moral identity, as measured by these two dimensions, may contribute to an understanding of what drives psychological distance constructs like social dominance and the circle of moral regard. Thus, relevant to psychological distance, a central moral identity entails that moral principles such as justice and care are more deeply rooted in one's sense of self-concept and social identity; thus, those moral principles will more effectively guide attitudes and actions towards outgroup members (Aquino, Reed, Thau, & Freeman, 2007; Hardy & Carlo, 2005; Reed & Aquino, 2003). For instance, individuals who place importance on egalitarian values exhibit less hostility and bias towards outgroups (Biernat, Vescio, & Theno, 1996). Furthermore, research has established that reductions in psychological distance diminish intergroup bias and lead to more egalitarian allocations (e.g. Dobbs & Crano, 2001; Hewstone et al., 2002). Therefore, it follows that an individual with a more self-important moral identity will perceive outgroups as less psychologically distant, and express less social dominance because they support equality among groups. Likewise, moral identity entails a "commitment of one's sense of self to lines of action that promote or protect the welfare of others" (Hart, Atkins, & Ford, 1998, p. 515), and greater moral concern for larger segments of humanity (Youniss & Yates, 1999). Thus, an individual with a stronger sense of moral identity should perceive outsiders as psychologically proximal, and possess a broader circle of moral regard.

In short, when justice and care become personally defining, rather than merely abstract moral principles, then the integrity of one's sense of identity is at stake. Hence, for the person with a highly self-important moral identity, looking down on people in other social groups (social dominance orientation) and not extending moral concern to them (circle of moral regard) would require violation of his or her desired identity, which would result in strong negative affect such as guilt (Aquino et al., 2007). Granted, this assumes this person's moral identity is truly based on universal moral principles. However, it might be possible for people to have a "false moral identity," or a sense of oneself as a moral person that is not really grounded in moral principles (Batson, Thompson, & Chen, 2002; Moshman, 2004). Thus, a person feasibly could see himself or herself as moral, but still hold a strong social dominance orientation and a narrow circle of moral regard – such a person would not be thought of as having a "true" moral identity. We leave such considerations for future investigations.

The role of parenting

Despite research suggesting the importance of psychological distance in underpinning social behaviors, very little is known about the developmental antecedents and contexts of psychological distance. The family context is generally seen as particularly important for the formation of attitudes towards (Grusec & Kuczynski, 1997) and relationships with others (Cassidy & Shaver, 1999). Research linking parenting to positive child and adolescent outcomes has generally focused on three dimensions of authoritative or democratic parenting: 1) responsiveness/involvement/warmth, 2) autonomy-granting/

autonomy-support, and 3) demandingness/strictness/supervision (Baumrind, 1991; Steinberg, Lamborn, Dornbusch, & Darling, 1992). The four parenting styles (authoritative, authoritarian, permissive, and neglectful) differ across these three dimensions; authoritative parenting is high on all three dimensions, and is the most adaptive parenting style for most families. Recent research has provided evidence for parental influences on the development of psychological distance (e.g., Duriez, Soenens, & Vansteenkiste, 2007). Specifically, parental support (responsive and autonomy-supportive parenting), but not parental regulation (strictness and monitoring), was negatively associated with adolescent social dominance orientation. Further, these researchers suggested that parenting style dimensions may have important indirect relations with psychological distance by way of personality variables, although they did not examine this in their study.

One potential mediating personality variable is moral identity. The three dimensions of authoritative parenting seem to facilitate the integration of moral values into the self (Grolnick, Deci, & Ryan, 1997; Hardy, Padilla-Walker, & Carlo, 2008), and thus support the formation of moral identity in adolescence (Pratt et al., 2003). The mechanisms linking these three parenting dimensions to moral identity are likely multifaceted and complex, but, we will note a few possibilities. Responsiveness enables the accurate perception and acceptance (two things required for internalization of values) of parental moral values (Padilla-Walker, 2007). When teens feel loved by and comfortable with their parents, they are more likely to listen to (i.e. accurately perceive) and agree with (i.e. accept) what their parents say and do (including their explicit and implicit value messages). Autonomy-granting encourages identity exploration and commitment (Luyckx, Soenens, Vansteenkiste, Goossens, & Berzonsky, 2007), including reflection on and commitment to moral principles. Demandingness helps youth understand moral principles and appreciate the consequences that flow from complying with or violating such principles (Grolnick et al., 1997). In short, authoritative parenting characterized by all three dimensions—responsiveness, autonomy-granting, and demandingness—seems to facilitate moral identity development (Hart, Atkins, & Ford, 1999; Pratt et al., 2003), which might then lead to socially constructive perceptions of psychological distance. Therefore, parents may be in a position to indirectly influence their adolescents' construction of psychological distance by fostering moral identity. Conversely, maladaptive and inappropriate parenting may hinder moral identity formation, and thus indirectly lead to inflated perceptions of psychological distance towards outsiders.

The present study

The purpose of the present study was to test a model wherein moral identity is a mediating mechanism between parenting and adolescent perceptions of psychological distance (social dominance orientation or SDO; circle of moral regard or CMR). We tested the following specific hypotheses: 1) the parenting style dimensions of responsiveness, autonomy-granting, and demandingness are positively associated with both dimensions of moral identity (internalization and symbolization). This is consistent with prior research linking parenting to the internalization of moral values into the self (Hardy et al., 2008; Pratt et al., 2003). The present study extends prior research by using a measure of moral identity that taps two possible facets of its self-importance. 2) The three dimensions of parenting relate negatively to SDO and positively to CMR. This is based on prior work suggesting that the way parents relate to their teens may play a role in their intergroup relations (e.g., Duriez et al., 2007). 3) The two dimensions of moral identity are positively associated with CMR and negatively related to SDO. However, prior work looking at moral identity and CMR in adults has found stronger links for internalization than symbolization (Reed & Aquino, 2003); we suspect similar patterns may emerge for adolescents. This is the first study examining links between the centrality of moral identity and SDO. 4) Parenting is indirectly related to psychological distance via moral identity. Duriez et al. (2007) proposed that such mediating mechanisms may be at work—although they did not address such mechanisms in their study. This entire mediation model will be simultaneously tested using path analysis.

Method

Procedure

This research was conducted at a mid-sized suburban public high school in the Mid-Atlantic region. Prior to conducting this research, full IRB approval was obtained for off-site research with high school students. Permission was obtained from the district superintendent and high school principal. The students were recruited from the entire high school, with the exception of special education classes. Informed consent forms were signed by all participants, as well as their parents, and collected by the researchers. (Less than 1% of parents at the school refused to allow their children to participate.) The survey was administered in an extended homeroom period of 45 min; most students finished in around 20 min. The survey was introduced by a short video segment over the school broadcast system and a brief explanation read by each homeroom teacher. Furthermore, participants were fully debriefed at the conclusion of the survey. Participants' responses were kept strictly confidential in that their data were only identified through identification numbers unknown to the researchers. Lastly, the results of this research were presented to the high school principal and district superintendent.

Sample

The initial sample consisted of 1256 ninth through twelfth grade students. Of those students who received the questionnaire, 185 (14.7%) were eliminated from analyses for showing evidence of patterned responding (i.e., answering every

question with a “4” on sections of the survey or responding with a repeated pattern, such as “1,2,3,4,5,6,7”). The final sample included 1059 students (56% girls; M age = 16.02, SD = 1.37) who had data on at least one of the study variables. Though ethnicity data could not be directly collected from participants, the ethnic profile of the high school’s total enrollment of 1592 during that school year was as follows: 90% European American, 5% Asian American, 4% African American, and 1% Hispanic.

Measures

Parenting style dimensions

Dimensions of parenting style were assessed using the 15-item Parenting Style Inventory II (Darling & Toyokawa, 1997), consisting of three 5-item subscales (the reported alpha values were calculated from the study data): responsiveness (α = .82; sample item: “I can count on my parents to help me out if I have a problem”), autonomy-granting (α = .74; sample item: “My parents give me a lot of freedom”), and demandingness (α = .61; sample item: “My parents really expect me to follow family rules”). Participants responded to 15 statements on a scale from 1 (*completely disagree*) to 7 (*completely agree*).

Moral identity

This construct was assessed using the self-report moral identity inventory developed and validated by Aquino and Reed (2002), which consists of two 5-item subscales (see Appendix A; the reported alpha values were calculated from the study data): *internalization* (the degree to which the moral traits are central to the participant’s self-concept; α = .84; sample item: “Being someone who has these characteristics is an important part of who I am”) and *symbolization* (the extent to which participants outwardly display a social identity based on the moral traits; α = .85; sample item: “I am actively involved in activities that communicate to others that I have these characteristics”). Respondents were presented a list of 9 moral character traits (e.g., caring) and asked to picture a person with those traits while responding to 10 statements on a scale from 1 (*completely disagree*) to 7 (*completely agree*).²

Social dominance orientation (SDO)

Sidanius and Pratto’s (1999) 16-item measure was used to assess social dominance orientation (α = .90; reliability calculated from the study data). Respondents indicated, using a 7-point scale from 1 (*very negative*) to 7 (*very positive*), their attitudes towards various statements that reflect either support for group-based hierarchies (e.g., “Superior groups should dominate inferior groups,” “It’s okay if some groups have more of a chance in life than others”) or the endorsement of hierarchy attenuating goals (e.g., “Group equality should be our ideal,” “No one group should dominate society”).

Circle of moral regard (CMR)

Using procedures outlined by Reed and Aquino (2003), the degree of expansiveness of an adolescent’s circle of moral regard was assessed by asking participants to report the extent to which they believed they had “a moral or ethical obligation to show concern for the welfare and interests” of four different outgroups (α = .84; reliability calculated from the study data): “People from another country,” “Strangers,” “People who practice a different religion than you,” and “People of different ethnicities than you.” Participants rated each item using a 7-point Likert scale from 1 (*absolutely no obligation*) to 7 (*very strong obligation*).

Results

Means, standard deviations, and correlations

All of the study variables were approximately normally distributed (i.e., skewness and kurtosis values less than an absolute value of 1). Descriptive statistics and bivariate correlations are displayed in Table 1. All of the bivariate correlations were statistically significant at the $p < .05$ significance level, and all but three (the correlations of CMR with the parenting dimensions) were significant at the $p < .001$ significance level. The three dimensions of parenting (responsiveness, autonomy-granting, and demandingness) were all positively correlated with both dimensions of the centrality of moral identity (symbolization and internalization). Further, the three parenting dimensions were negatively correlated with SDO and positively correlated with CMR. Internalization and symbolization were positively correlated with each other (as is

² As can be seen in Appendix A, Aquino and Reed’s (2002) approach for assessing the centrality of a person’s moral schema begins by asking people to reflect on the degree to which they define themselves in terms of a subset of moral traits (e.g., compassionate, kind, honest, fair, etc) which for most people, have been established to be associated with a lay conception of morality (see Walker & Pitts, 1998). This measurement approach is based on the key social cognition principal of spreading activation (Collins & Loftus, 1975) of clustered self-relevant traits (moral in this case) in memory (cf. Conway & Pleydell-Pearce, 2000; Kihlstrom & Klein, 1994). Participants are exposed to moral trait stimuli, asked to reflect on the stimuli, and then answer several questions about how those trait stimuli relate to the private and public aspects of their moral self-concepts. This measure of the centrality of moral identity is one of the few rigorously validated instruments of this type in the moral psychology literature. Aquino and Reed (2002; Reed & Aquino, 2003) provide considerable evidence supporting the construct validity of their moral identity measure. Past research has shown that the items of this instrument (1) are internally consistent, (2) show significant test–retest reliability, (3) have a stable factor structure, (4) are distinct from related constructs, and (5) predict a variety of morally relevant cognitions and behaviors (Aquino & Reed, 2002; Reed & Aquino, 2003; Reed et al., 2007).

Table 1
Estimated means, standard deviations, and correlations for study variables.

Variables	1.	2.	3.	4.	5.	6.	7.	M	SD
1. Responsiveness	1.00							5.27	1.24
2. Autonomy-granting	.59	1.00						4.87	1.21
3. Demandingness	.18	-.13	1.00					5.02	1.00
4. Symbolization	.27	.13	.19	1.00				4.49	1.22
5. Internalization	.41	.22	.34	.48	1.00			5.83	1.10
6. Social dominance orientation	-.25	-.18	-.23	-.18	-.46	1.00		2.87	1.04
7. Circle of moral regard	.10	.09	.07	.19	.21	-.33	1.00	4.11	1.16

Note: $N = 1059$.

All correlations are statistically significant at $p < .05$.

Range for all measures is 1–7.

typically found—see Reed & Aquino, 2003), negatively correlated with SDO, and positively associated with CMR. Thus, all of the bivariate correlations were in the expected direction.

Tests of the mediation model

We tested the proposed mediation model using path analysis, which is essentially linear regression analysis in which all model paths are estimated simultaneously. The statistical software package Mplus 5 (Muthén & Muthén, 2007) was used to estimate the model parameters and to assess model fit. Model parameters were estimated using full information maximum likelihood estimation (FIML), which capitalizes on available data to estimate parameters, so all cases with data on at least one variable are included in the analysis. Indirect effects of parenting on psychological distance by way of moral identity were estimated using the “Model Indirect” command in Mplus.

We sought to identify the most appropriate model of the relations between the study variables (by most appropriate, we mean the model that balanced goodness-of-fit and parsimony). To assess model fit, we used three conventional indexes (Hu & Bentler, 1999): the Chi-Squared (χ^2) statistic, Root Mean Squared Error of Approximation (RMSEA; values below about .06 indicate good fit), and Comparative Fit Index (CFI; values above about .95 indicate good fit). Additionally, χ^2 difference tests were used to assess the relative fit of each nested model. Given that the proposed mediated model is considered a saturated model (in that regression paths or covariances are specified between all model variables), these three conventional indexes of model fit were not always very informative – in cases of a saturated model these indexes merely indicate that the model is a perfect fit. Therefore, in addition to these indexes of overall model fit, we also used the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) as indexes for model comparisons because they consider model fit and model complexity, and can be used to compare saturated models to alternative models. Although absolute values on the AIC and BIC are not interpretable, when comparing models, lower values indicate the preferred model.

To find the most appropriate model, we estimated a series of five alternative models (see Table 2 for the model fit and model comparisons statistics). We were primarily interested in the regression paths linking the predictors, mediators, and outcomes. Thus, in each model we specified a different pattern of regression paths, but, in all models we estimated covariances between the three parenting variables, between the two dimensions of moral identity, and between the two psychological distance variables. The first model estimated was a baseline model with no regression paths specified between variables. This model was a poor fit to the data, suggesting the need to add some structural paths between the variables. Thus, the second model included paths from parenting to moral identity to psychological distance, but no paths from parenting to moral identity (i.e., only direct paths from parenting to psychological distance). This model was a significant improvement over the baseline model, but was still a poor fit to the data. The third model specified paths from parenting to moral identity, and from moral identity to psychological distance (i.e., indirect relations between parenting and psychological distance via the internalization and symbolization dimensions), but no direct paths from parenting to psychological distance. This model was a significant improvement over the baseline model, and was a good fit to the data. Although the second and third models were not nested, and thus could not be compared using a χ^2 difference test, the third model seemed to fit better based on the CFI, RMSEA, AIC, and BIC.

Fourth, we estimated the proposed mediation model which included direct and indirect paths from parenting to psychological distance (i.e., paths from parenting to psychological distance, parenting to the centrality of moral identity, and

Table 2
Model fit statistics.

Model	Description	χ^2 (df)	CFI	RMSEA	AIC	BIC
Model 1	Baseline model	609.81 (16)	.62	.19	21,857	21,951
Model 2	Direct paths only	306.28 (6)	.70	.22	21,573	21,717
Model 3	Indirect paths only	22.86 (6)	.98	.05	21,290	21,434
Model 4	Direct and indirect paths	0	1.00	0	21,279	21,453
Model 5	Significant paths only	7.48 (6)	1.00	.02	21,274	21,418

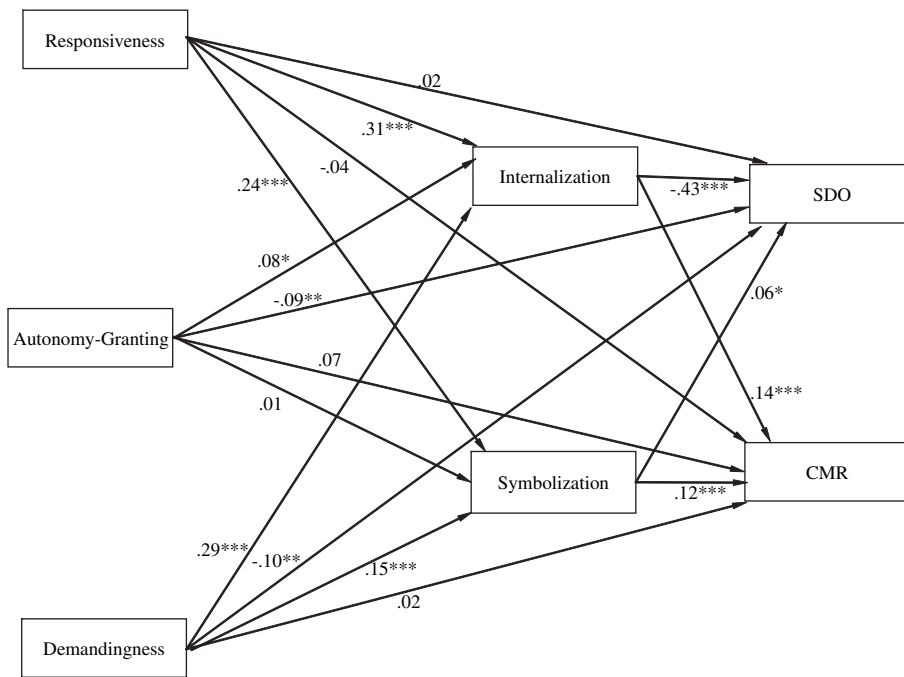


Fig. 1. Structural equation model (Model 4; hypothesized model with direct and indirect effects) of parenting dimensions, moral identity, and psychological distance. Coefficients are standardized regression coefficients. * $p < .05$, ** $p < .01$, *** $p < .001$.

the centrality of moral identity to psychological distance; see Fig. 1). As mentioned above, this was a saturated model, and thus there were no degrees of freedom, meaning the χ^2 , CFI, and RMSEA indexes indicated perfect model fit. This model allowed for calculation of the proportion mediation, which is the proportion of the total effect that is through the mediating variables (MacKinnon, 2008). To get the total effect, we added the direct effect and the two mediation effects. Then, proportion of mediation was calculated by dividing each mediation effect by the total effect. Of the total effect of

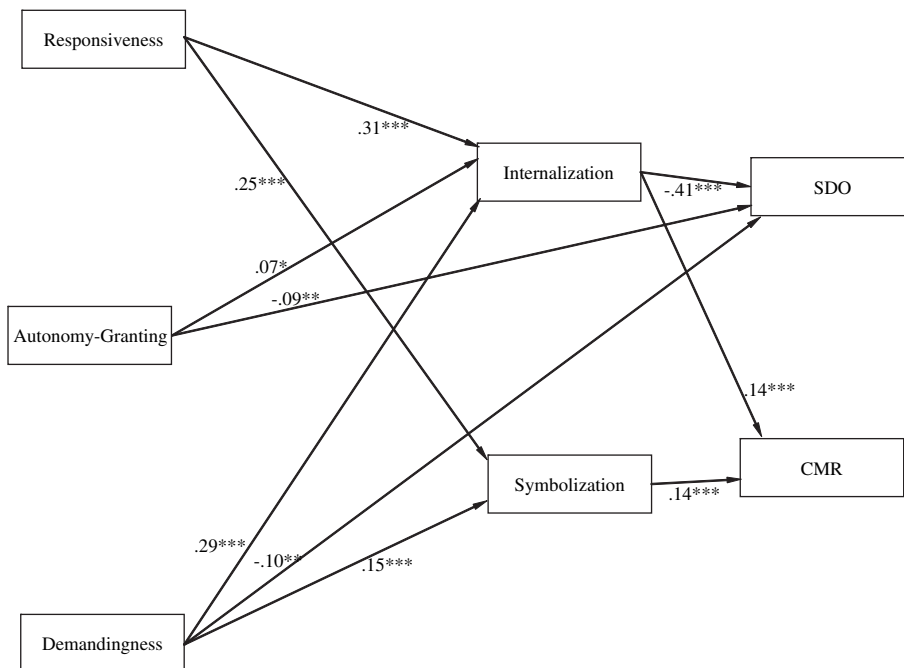


Fig. 2. Structural equation model (Model 5; final model with significant paths only) of parenting dimensions, moral identity, and psychological distance. Coefficients are standardized regression coefficients. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3
Unstandardized regression coefficients from final model.

Predictors	Criteria			
	Internalization β (SE)	Symbolization β (SE)	SDO β (SE)	CMR β (SE)
Responsiveness	.28*** (.03)	.24*** (.03)	N/A	N/A
Autonomy-granting	.07* (.03)	N/A	-.08** (.02)	N/A
Demandingness	.32*** (.03)	.18*** (.04)	-.10** (.03)	N/A
Internalization			-.39*** (.03)	.14*** (.04)
Symbolization			N/A	.13*** (.03)

Note: $N = 1059$.

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

N/A indicates paths not included in the model.

responsiveness on SDO, 78% was mediated by internalization and 9% by symbolization, while of the total effect of responsiveness on CMR, 41% was mediated by internalization and 27% by symbolization. For total effect of autonomy-granting on SDO, 26% was mediated by internalization and 1% by symbolization, while for autonomy-granting on CMR, 14% of the total effect was mediated by internalization and 1% by symbolization. Lastly, of the effect of demandingness on SDO, 54% was mediated by internalization and 4% by symbolization, while for demandingness on CMR, 55% was mediated by internalization and 24% by symbolization.

Although the saturated model fits the data perfectly, there was the possibility that it was not the most parsimonious model. So, we estimated a fifth model where we only included those paths that were statistically significant in the fourth model (see Fig. 2). This entailed dropping the paths from symbolization and responsiveness to SDO, from autonomy-granting to symbolization, and from responsiveness, autonomy-granting, and demandingness to CMR. The fifth model still fits the data very well in terms of χ^2 , CFI, and RMSEA, but also fit the data better than the fourth model based on the AIC and BIC. This suggests that the slight improvement in model fit obtained by adding those six regression paths was not worth the increased model complexity (decreased parsimony). In short, the most appropriate model was the fifth model. This model accounted for 23% of the total variance in SDO, and 6% of the total variance in CMR.

The final model partially supported our hypotheses (see Table 3). First, all three parenting dimensions were positively related to internalization. However, only responsiveness and demandingness were positively linked to symbolization, while autonomy-granting was not significantly related. Second, surprisingly, regarding direct links between parenting and psychological distance, only autonomy-granting and demandingness were related to SDO (negatively), and none of the parenting dimensions was linked directly to CMR. Third, while both facets of the centrality of moral identity positively predicted CMR, only internalization was significantly (negatively) related to SDO. Fourth, interestingly, although only two direct links from parenting to psychological distance emerged, we found a number of indirect relations between parenting and psychological distance (see Table 4). In fact, all of the indirect effects that were possible, based on the paths remaining in the model, were statistically significant at the $p < .05$ significance level (and 5 of the 8 indirect effects were significant at the $p < .001$ significance level). Responsiveness was a negative indirect predictor of SDO via internalization, and a positive indirect predictor of CMR via both internalization and symbolization. Autonomy-granting was related negatively to SDO and positively to CMR indirectly via internalization. Lastly, demandingness was indirectly linked to SDO negatively via internalization, and positively to CMR via both facets of moral identity.

Discussion

The purpose of the present study was to examine moral identity as a predictor of psychological distance, and assess the former's role as a mediator between parenting style dimensions and psychological distance. The findings provide preliminary

Table 4
Indirect effects for final model.

Mediation paths	Criteria	
	SDO β (SE)	CMR β (SE)
Responsiveness \rightarrow symbolization	N/A	.03*** (.01)
Responsiveness \rightarrow internalization	-.13*** (.02)	.04*** (.01)
Autonomy-granting \rightarrow symbolization	N/A	N/A
Autonomy-granting \rightarrow internalization	-.03* (.01)	.01* (.01)
Demandingness \rightarrow symbolization	N/A	.02** (.01)
Demandingness \rightarrow internalization	-.12*** (.01)	.04*** (.01)

Note: $N = 1059$. Coefficients are standardized regression coefficients.

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

N/A indicates indirect effects not possible due to paths not included in the model.

support for the hypothesis that parenting may relate indirectly to adolescent psychological distance via the private and public dimensions of adolescent moral identity.

The three dimensions of authoritative parenting were generally positively associated with the two facets of moral identity (symbolization and internalization), the only exception being the lack of a significant relation between autonomy-granting and symbolization. This result provides further evidence that authoritative parenting (characterized by responsiveness, autonomy-granting, and demandingness) may provide a context that facilitates the appropriation of moral values into the self (internalization) and the expression of a moral self-image in the social world (symbolization; Hardy et al., 2008; Hart et al., 1999; Pratt et al., 2003). Moreover, the fact that all three dimensions of parenting showed unique relations to moral identity points to the potentially distinctive roles that responsiveness, autonomy-granting, and demandingness may play in providing a context conducive to the development of moral identity in adolescents.

The hypothesized relations between moral identity and psychological distance were largely supported. When considered in isolation in bivariate correlations, higher levels of both internalization and symbolization related to lower SDO and higher CMR. However, when considered simultaneously in the path model, symbolization was no longer significantly associated with SDO. This suggests that the more that moral traits are central to adolescents' self-concepts, the less likely they will prefer inequality and see their ingroup as better than others, and the more likely they will extend moral regard to outgroup members. Further, the extent to which moral traits are important to the social identities adolescents adopt and hold as their own may also play a role in the expansiveness of their moral regard for outgroup members. These findings complement the wide array of research indicating that decreasing psychological distance can diminish intergroup bias and encourage equal treatment and extension of moral concern towards outsiders (see Brewer, 2007; Hewstone et al., 2002, for reviews). Thus, greater self-importance of moral identity may lead adolescents to perceive others as psychologically proximate and treat them accordingly.

It is unclear, however, why symbolization did not relate to SDO. Prior studies using the same measure of moral identity have also generally found internalization to be a more consistent predictor of morally relevant outcomes (Aquino & Reed, 2002; Aquino et al., in press; Reed & Aquino, 2003; Reed, Aquino, & Levy, 2007). Further, some studies have found symbolization to be associated with measures of impression management (Aquino & Reed, 2002) and even unethical behavior, such as cheating (Reynolds & Ceranic, 2007). Perhaps, as Wiltermuth, Monin, and Chow (Unpublished manuscript) have suggested, treating these two dimensions as independent but conceptually overlapping may help clarify their intricate relations. In any case, future work is needed to continue to understand and differentiate these two facets of moral identity.

There was partial support for the hypothesized indirect effects from parenting to psychological distance, by way of moral identity as a mediator. Of the 12 possible indirect effects, 8 were statistically significant. Three of the non-significant indirect effects were from the three dimensions of parenting to SDO by way of symbolization, because symbolization was not related to SDO, and autonomy-granting was not related to symbolization. The fourth non-significant indirect effect was from autonomy-granting to CMR via symbolization, because autonomy-granting was unrelated to symbolization. Hence, for the most part, greater adolescent-perceived authoritative parenting (e.g., parenting that is responsive, supportive of autonomy, and demanding) was related to greater self-importance of moral traits to adolescents' personal and social identities, which in turn was linked to lower preference for inequality, and greater extension of moral regard to outgroups.

These findings support the remarkably consistent picture drawn by decades of research regarding the style of parenting that facilitates the successful socialization of adolescents: authoritative parenting (characterized by responsiveness, autonomy-granting, and demandingness) has long been linked to favorable psychosocial development (Baumrind, 1991; Darling & Steinberg, 1993). Moreover, in testing the dimensions underlying parenting style separately, the relative contribution of each dimension could be determined. The current findings suggest that each dimension of authoritative parenting is linked either directly or indirectly with adolescent construction of psychological distance. Furthermore, the present research suggests that moral identity may be an important intervening mechanism in these relations.

This study makes a number of significant contributions to the developmental and social psychological literatures. It is one of the first studies to examine the socialization and development of psychological distance. More specifically, this study provided partial validation for a model linking the three dimensions of authoritative parenting to positive psychological distance (less preference for inequality and greater moral regard to outgroups). Furthermore, the self-importance of moral identity, which has been identified as a significant aspect of moral personality with a potentially salient role in moral motivation (Aquino et al., in press), was found in the present study to be a mediator between parenting and psychological distance. Support for the place of moral identity as a mechanism here suggests the importance of considering moral development and moral personality in order to more fully understand psychological distance. Scholars have argued that increasingly valuing others relative to oneself is implicit in possessing a strong moral identity (Hart et al., 1998; Youniss & Yates, 1999). Valuing others (or outgroups) equally with oneself (or one's ingroup), and thus finding them worthy of moral care, distills the essence of the concept of psychological distance and reveals its moral foundation. When psychological distance is reduced to zero, the golden rule is truly embodied.

The present study also has important applied implications. First, as parents relate positively with their children and work to foster moral identity, they are indirectly improving the ways their adolescent will relate to others, particularly outgroup members. However, such processes may also work similarly for other socialization agents. Thus, schools, churches, social workers, and other community members may similarly be able to promote positive perceptions of psychological distance in adolescents by instilling a moral sense of identity and agency in them. Importantly, the current findings suggest that simply

providing moral guidance and structure may not be sufficient to influence outcomes: in order to truly alter the manner in which they perceive others, adolescents must develop their own internal moral compass. Furthermore, these insights may prove useful in supplementing existing approaches that attempt to reduce perceptions of psychological distance directly (e.g., diversity training and workshops, encouraging contact with outsiders).

Limitations

Despite the importance of this study, it had several limitations. First, the sample was largely European American. While this is often true of research in psychology, it is of particular importance here because prior work suggests that while authoritative parenting is generally the most adaptive, particularly for European American populations, other styles of parenting such as authoritarian parenting may also be adaptive for other groups (e.g., African Americans; Peterson, Steinmetz, & Wilson, 2005). Further, some identity processes seem to differ across cultures (Markus & Kitayama, 1991). As yet, moral identity has not been *systematically* examined cross-culturally, so it is unclear if moral identity looks and functions the same universally.³

Another limitation is that all of the measures were adolescent-report. However, research suggests that adolescents' self-reports are more robustly related to adolescents' behaviors than parental reports, particularly when studying internal traits (Clarke, Lewinsohn, Hops, & Seeley, 1992). Therefore, it is likely that adolescent reports of the variables used in the present study are more useful and valid for our purposes than most other measurement formats. Moreover, the SDO measure has been extensively validated (Pratto et al., 1994), and adolescent-report measures of parenting are frequently used in the developmental literature and seen as providing valuable information (Steinberg et al., 1992).

Psychologists have used several approaches in assessing a person's moral identity (for a review, see Hardy & Carlo, *in press*). A few have used self-report measures that assess the relevance of morality to the self-as-object (e.g., Aquino & Reed, 2002; Hardy, 2006; Pratt et al., 2003). These "trait endorsed" measures are not without controversy (Frimer & Walker, 2008). For example, some scholars (e.g., Blasi, 2004; Glodis & Blasi, 1993; Moshman, 2005) have argued that identity is more complex and may be better rooted by exploring the rich narratives that may emerge when people are prompted to probe their own moral selves (Walker & Hennig, 2004). To potentially capture some of the richness and complexity of moral identity that may be missed by self-reports, some scholars have measured markers of moral identity, such as volunteering for community service (Hart et al., 1998) or being nominated as a moral exemplar by community leaders (Matsuba & Walker, 2004; Reimer, 1993). However, these approaches are not without their own limitations. Most importantly, these approaches assume that people who engage in high levels of prosocial behavior have moral identities. What is unclear and unanswered by these studies is whether their actions could have been motivated by other sources (e.g., situational incentives, selfish concerns) without moral principles being central to their identities. For this reason, we chose to rely on a well-validated measure that directly captures the centrality of morality to the self and that has been shown empirically to predict a variety of morally relevant outcomes (e.g., Aquino & Reed, 2002).

The final limitation we should point out is that a number of the coefficients in the model were modest in size. In particular, the coefficients for the indirect effects look somewhat small. However, it is common for indirect effects to be small, and in fact small indirect effect can still be substantively and practically important (MacKinnon, 2008). Further, in terms of the proportion of the total effect of the predictors on the outcomes in the present model, often the mediators (particularly internalization), accounted for over 50% of the total effect.

Conclusions

In closing, the present study found initial support for a model whereby responsiveness, autonomy-granting, and demandingness (the three dimensions of authoritative parenting) were proposed to influence adolescent psychological distance (SDO and CMR) through the mechanism of facilitating adolescent moral identity (internalization and symbolization). This work ties together the developmental literature on parental socialization, the literature on moral personality and development, and the social psychological literature on psychological distance. It provides a developmental framework for two psychological constructs important to intergroup relations, and posits a central role for moral development. Future work should look at other developmental predictors of psychological distance, and test other potential developmental mechanisms. For example, researchers might look at the role of other aspects of parenting (e.g., monitoring), peers, and youth involvement (e.g., volunteerism). More research is also needed to further outline what exactly moral identity entails, and how it relates to other environmental and psychological variables. Lastly, future work might also look at other related outcomes of the developmental model proposed in the present study. For example, it would be good to know if the present model works equally well for predicting behavioral outcomes (e.g., prosocial and aggressive acts towards outgroup members). It is hoped that the present study provides a good starting point for further work in this area.

³ There is unpublished data that demonstrates that the factor structure of the Aquino and Reed (2002) scale is invariant across samples from four countries—US, Germany, India, and the Philippines—(Reed, Sucharski, Aquino, & Thau, 2009). However, much more work is needed to explore the cultural bounds of identity formation processes and how different cultural norms may affect the mediational relationships that we have observed in the current study.

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Appendix A. Moral identity measure

Listed below are some characteristics that might describe a person: caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, kind.

The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions.

I	1. It would make me feel good to be a person who has these characteristics.
I	2. Being someone who has these characteristics is an important part of who I am.
S	3. I often wear clothes that identify me as having these characteristics.
I	4. I would be ashamed to be a person who had these characteristics. (R)
S	5. The types of things I do in my spare time (e.g., hobbies) clearly identify me as having these characteristics.
S	6. The kinds of books and magazines that I read identify me as having these characteristics.
I	7. Having these characteristics is not really important to me. (R)
S	8. The fact that I have these characteristics is communicated to others by my membership in certain organizations.
S	9. I am actively involved in activities that communicate to others that I have these characteristics.
I	10. I strongly desire to have these characteristics.

I = internalization, S = symbolization, R = reverse coded.

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