Parenting Practices and the Development of Adolescents' Social Trust

Laura Wray-Lake,
Claremont Graduate University

Constance A. Flanagan
University of Wisconsin – Madison

Abstract

Social trust (ST) (i.e., beliefs that people are generally fair and trustworthy) is a critical disposition for democratic governance. Yet there has been scant research on its developmental foundations. We assess factors related to ST in 11 – 18 year olds with survey data collected over two years from 1150 U.S. adolescents and their mothers. Adolescents' ST in year 1 and their reports of a positive neighborhood climate predicted ST one year later. Adolescents' reports of family practices were stronger predictors of their ST than were mothers' reports. Regression analyses revealed different factors predicting changes in ST for three adolescent age groups: With ST at T1 and background factors controlled, democratic parenting boosted ST for early- and middle-adolescents. Adolescents' reports that parents encouraged compassion for others boosted ST for middle- and late-adolescents, and parental cautions about other people taking advantage diminished ST among middle adolescents. Results suggest that the disposition to trust others is formed, in part, by what adolescents hear from parents about their responsibilities to fellow human beings and by modeling of democratic parenting.

Keywords

social trust; democratic dispositions; democratic parenting; compassion

In a classic article in the *Annual Review of Psychology*, Sullivan and Transue (1999) argue that democratic societies require more than laws and institutions. Democracies also depend on certain psychological dispositions in people, with an ethic of civic participation and tolerance of and trust in others high on the list. This paper concerns social trust in adolescence and the role of family processes in its development. Social trust is the belief that people generally are fair, helpful, and trustworthy and is positively related to many forms of civic attitudes and behaviors. Studies across nations indicate that individuals who endorse this belief also exhibit democratic values such as tolerance and open-mindedness

laura.wray-lake@cgu.edu .

and behaviors such as voting, volunteering, and participating in community affairs (Delhey & Newton, 2005; Jennings & Stoker, 2004; Phan, 2008; Putnam, 2000; Uslaner, 2002; Wallace, 2008; Welch, Rivera, Conway, Yonkoski, Lupton, & Giancola, 2005). Although it is likely that the foundations of this basic belief about people are formed prior to adulthood, most of the research on social trust is based on studies of adults.

The current study explores adolescents' beliefs that people generally are trustworthy rather than out for their own gain in a large sample of U.S. adolescents followed over two years. We argue that, to understand the development of social trust in adolescents, we must pay attention to family processes, in particular, the importance of compassion and responsibility for others that adolescents hear from their parents. We examine the relative contributions of mothers' own beliefs about the trustworthiness of people as well as mothers' and adolescents' reports of the values and practices emphasized in their families. With respect to values, we focus on what adolescents hear from parents about how one should treat others, i.e., with compassion (e.g., by being respectful, open-minded, and responsive to their needs) and caution (e.g., by being guarded lest other people take advantage); with respect to parenting practices, we focus on democratic parenting (i.e., the degree to which parents and adolescents respect one another's point of view). In addition, we control for demographic (age, gender, and race/ethnicity) and extra-familial factors (interpersonal trust in friendships and perceptions of a positive neighborhood climate) that may contribute to adolescents' social trust.

Developmental research has focused primarily on interpersonal trust in familiar others. However, social trust extends beyond such interpersonal relationships and taps one's beliefs about people in general. In his discussion of types of trust, Uslaner (2002) labeled the former "strategic" trust, that is, our level of confidence in those we know, and the latter "moralistic" trust, that is, our decision to treat others we do not know as we would wish them to treat us. Unlike familiars, people we do not know are less predictable. We cannot say with confidence that they are fair, honest, and benevolent and so, in making the leap of faith of placing our trust in them, we leave ourselves vulnerable to the possibility that other people may treat us unfairly or dishonestly. Social trust, then, is a gauge of our willingness to give others we do not know the benefit of the doubt. In so doing, we accept them as part of our moral community (Uslaner, 2002).

Research on the developmental foundations of social trust is sparse. However, longitudinal work following high-school seniors into their mid-thirties suggests that social trust crystallizes towards the end of the third decade of life and, except for major disruptions due to negative life events, remains rather stable thereafter (Damico, Conway, & Damico, 2000; Jennings & Stoker, 2002; Stolle & Hooghe, 2003; Uslaner, 2002). In light of the significance of this disposition for democratic governance, it seems imperative that we learn more about the development of these beliefs prior to adulthood.

Although developmental work on social trust per se is sparse, research has shown that, by the time they are early adolescents, children already hold implicit theories about people. Some early adolescents, labeled *entity theorists*, believe that people's traits are fixed and unlikely to change. In contrast, other so-called *incremental theorists* believe that people are

capable of change. The latter group also is less inclined to judge others (Dweck, 1999; Levy & Dweck, 1999) or to stereotype outgroups such as homeless people and is more likely to see similarities between themselves and members of stereotyped groups (Karafantis & Levy, 2004). Although these studies are not specifically focused on social trust, they do suggest that even early adolescents differ in their willingness to give others whom they do not know the benefit of the doubt.

Longitudinal work looking specifically at social trust found that adolescents' beliefs in the trustworthiness of other people are both more positive and more malleable in early adolescence when compared to middle or late adolescence. Early adolescents report higher levels of social trust than do middle or late adolescents and, over the period of one year, even early adolescents' social trust declines. Whereas late adolescents' social trust measured in one year is a powerful predictor of their social trust one year later, there is more change in early adolescents' beliefs about the trustworthiness of others across this same time frame. In other words, social trust tends to crystallize as adolescents age. Consequently, parents' beliefs about the trustworthiness of other people should have the strongest impact in early adolescence, when adolescents' social trust is more malleable.

Developmental studies also have shown that capacities to conceive of abstract groups and to differentiate aspects of the social world from one's personal experiences increase between early and late adolescence (Eisenberg & Sheffield Morris, 2004; Keating, 2004). Compared to early adolescents, late adolescents are more likely to distinguish their general beliefs in a just world from perceptions that they are usually treated fairly (Dalbert & Sallay, 2004). Likewise, late adolescents are more likely than early adolescents to distinguish social trust from interpersonal trust in friendships (Flanagan & Stout, 2010). In summary, whereas early adolescents' beliefs about the world and about the trustworthiness of people are less abstract and differentiated from their personal experiences, late adolescents' beliefs are more crystallized. Based on previous research, we examine age differences in social trust, expecting a declining age trend from early adolescence to late adolescence. In addition, we assess the association of mothers' reports of their own beliefs in the trustworthiness of others with those of their early, middle, and late adolescents, expecting stronger associations between mothers and their early adolescent children.

Parents' Roles in the Socialization of Social Trust

Uslaner (2002) argues that our beliefs about other people being trustworthy reflects a moral stand, a commitment to the Golden Rule of treating others as we would wish them to treat us. As such, the foundations of social trust are set early in life through the values we learn in families. In this paper we focus on parent-adolescent relationships and argue that there are three important roles that parents play in the development of children's social trust (see also Flanagan, 2003).

First, they are moral guides, admonishing children about relationships with fellow human beings and how one should treat them (i.e., don't judge people before you get to know them, attend to and respond to other people's needs). According to cross-national work, parental admonitions to be aware of and responsive to the needs of others are consistently

and significantly related to adolescents' civic commitments, i.e., the importance they attach to serving their country and community (Flanagan, Bowes, Jonsson, Csapo, & Sheblanova, 1998). In addition, research with adolescents in the United States points to significant associations between adolescents' political views and their reports that parents encourage them to be compassionate toward others: Adolescents who reported that an ethic of compassion was emphasized in their families were significantly more likely to see the systemic and structural roots of poverty, unemployment, and homelessness and less likely to blame individuals for these problems (Flanagan & Tucker, 1999). Neither of these studies examined the relationship between family values of compassion and adolescents' social trust. However, analyses of trends over several decades among American adolescents showed that, as self-enhancing values (materialism) increased, levels of social trust declined (Rahn & Transue, 1998). In other words, when cohorts of youth adopted materialism as an important goal for their lives, they were more likely to believe that people in general were out for their own gain and were not trustworthy. Based on the extant literature, we examined maternal messages of compassion in relation to adolescents' social trust, expecting that compassion messages are one way that parents socialize adolescents' moralistic beliefs about others.

Second, parents play a role in the development of adolescents' social intelligence and their capacities to discern when people may not be trustworthy. Trust reflects an individual's social intelligence, or his or her capacities to „read' people (Yamagishi, 2001). Trust differs from gullibility or naiveté because it is informed by good judgment and tempered by skepticism (Rotter, 1980). In the real world, there are times when people will take advantage of us, and no parent wants their child to be the unwitting object of unfair treatment. Thus, parents of adolescents, including parents who urge their children to be compassionate toward others, also may warn them that they should be careful in dealing with people because sometimes people may take advantage of others. Although messages to be compassionate and to be cautious towards others are both important, high parental emphasis on caution should be at odds with a disposition of social trust. In this study, we examined the role of maternal messages of caution in relation to adolescents' social trust, expecting a negative association.

Finally, parents play a role in the development of adolescents' social trust by interacting with their sons or daughters in a way that communicates that they consider their child trustworthy. That is, if parents are open-minded toward and respectful of adolescents' views, then adolescents, in turn, should be more open-minded toward and trusting of other people. Erikson (1968) alluded to the relationship between trust and trustworthiness in adolescence when he discussed the role of fidelity as the cornerstone of identity; that is, when seeking ideas they can believe in and others who share them, adolescents also need to feel that they are being true to themselves.

Mothers and fathers can play different roles in value socialization processes (Boehnke, 2001; Grusec & Goodnow, 1994). Mothers spend more time with children, on average, are typically more responsible for caregiving than fathers (Parke & Buriel, 2006), and tend to be more knowledgeable about their children's daily experiences (Crouter, Helms-Erikson, Updegraff, & McHale, 1999). Thus, mothers may have more opportunities to communicate

with adolescents about values, and the messages adolescents hear about values likely most often come from mothers. Although ideally our study would have surveyed both parents, prior evidence suggests that mothers would be the most reliable informants, and this study relied on mothers' reports of value messages communicated to adolescents.

Although the types of messages that parents communicate are undoubtedly important for understanding socialization processes for social trust, adolescents must accurately perceive parental value messages before they can internalize them (Grusec & Goodnow, 1994). Internalization of values is a cognitive process, and adolescents are active agents in their own socialization. Across studies, adolescents' and parents' reports of values are only weakly correlated (Hoge, Petrillo, & Smith, 1982; Whitbeck & Gecas, 1988). Parents may communicate inconsistent messages in which verbal messages contradict behavioral examples (Knafo & Schwartz, 2003), and adolescents actively interpret parental messages. The messages adolescents hear from parents, rather than what parents report communicating, inform adolescents' ideas and behaviors (Padilla-Walker & Carlo, 2004). Thus, adolescent reports of parental messages are arguably more important than parents' own reports. In examining both mother and adolescent reports of value messages (i.e., compassion and caution) and parenting practices (i.e., democratic parenting), we expect that adolescents' perceptions of parenting will be the most formative for their social trust.

Extrafamilial Contexts

Family life is not the only context in which adolescents interact with and develop their beliefs about other people. Adolescents also develop beliefs about the trustworthiness of other people through peer relationships and community interactions. Concerning the former, adolescents should learn some basics about trust through friendships insofar as many of the elements of trust including fairness, accountability, and loyalty are issues that friends negotiate (Rotenberg, 1991). Further, having friends and socializing with other people are correlated with higher levels of social trust (Uslaner, 2002). In fact, people who have few friends may have problems reading social cues: They believe that other people do not trust them, despite conflicting reports from their peers (Rotenberg, 1994). Thus, interpersonal trust between friends should provide a foundation for social trust.

However, as noted, interpersonal and social trust are distinct. Between early and late adolescence there is an increasing capacity to conceive of abstract groups (like humanity or people in general) and to differentiate one's personal experience from these abstractions (Eisenberg & Sheffield Morris, 2004; Keating, 2004). In addition, empirical work has shown that, whereas the quality of early adolescents' friendships has a positive association with their social trust, the relationship disappears by middle adolescence (Flanagan & Stout, 2010). Therefore, we examined adolescents' reports of interpersonal friendships in relation to their social trust, expecting a positive association that would be stronger for early- and middle-adolescents than for late adolescents.

Community interactions also are a context in which adolescents are likely to hone their beliefs about other people. Studies of adults indicate that social trust is positively correlated with social intelligence, that is, those with higher social trust are better at "reading" others

and at paying attention to cues about when they should be wary. It appears that adolescents learn these skills by interacting with other people insofar as social isolates have lower levels of social trust and social intelligence (Yanagishi, 2001). Among adolescents, involvement in community-based organizations, especially those that also engage youth in volunteer work, is positively associated with adolescents' beliefs that people in their community are trustworthy, helpful, welcoming to newcomers, and committed to working together to solve collective problems (Flanagan, Gill, & Gallay, 2005). Thus, we expected that a positive neighborhood climate would predict higher social trust among adolescents.

Study Hypotheses

This survey of relevant literature leads to the following hypotheses, tested in the current study. First, between early and late adolescence, we expect that levels of social trust will decline and that mothers' social trust will have less direct impact on adolescents' beliefs in the trustworthiness of others. Second, we expect that family values of compassion, or messages to treat other people with respect, equality, and responsiveness to their needs, will positively predict adolescents' social trust and that admonitions to be cautious in interactions with other people will be negatively related to adolescents' social trust. Given the paramount importance of adolescents' perceptions of parental messages for their own values and behaviors (Padilla-Walker & Carlo, 2004), we anticipate that adolescents' perceptions of family practices will be stronger predictors of their social trust than mother reports of these practices. Third, parents who listen to and are open-minded toward their adolescents' views are modeling trust: This style of democratic parenting should positively relate to adolescents' beliefs that people are trustworthy. Fourth, interpersonal trust in friendships should be positively associated with ST for early- but not for middle- or late-adolescents but perceptions that fellow community members work together to make their community a good place to live should be positively associated with ST for all age groups.

Method

Data came from the Social Responsibility and Prevention Project, a three-year U.S. longitudinal study of adolescents, parents, and teachers with the goal of understanding the development of adolescents' social responsibility. We annually surveyed adolescents in 5th through 12th grade social studies classrooms across eight school districts in a northeastern and midwestern state, which represented rural, urban, and semi-urban districts. Adolescents and parents gave active consent for participation, resulting in a wave 1 response rate of 79% for adolescents ($N = 2516$). At wave 2, previously participating adolescents who did not graduate from high school and who were still in the school system were sought for the study, and new students were recruited in the same way as wave 1, resulting in a wave 2 response rate of 54%. At wave 3, only previously participating adolescents who were still in the school system were sought, and the wave 3 response rate was 65%.

Parents and/or guardians of participating adolescents were recruited through mailed surveys to home addresses. Two surveys were mailed to each home and parents were compensated $20 for each returned survey. No other follow-ups were conducted or incentives provided to encourage participation. Parents of participating adolescents were recruited in the same

way at each wave, regardless of whether the parents had previously participated. Thus, new parents were added at each wave. Although both parents were invited to participate, in the majority of cases, only one parent (84% mothers) participated. Response rates for one parent per family were 40% at wave 1, and were similar at waves 2 and 3 (44% and 41%, respectively) based on the obtained adolescent samples. Due to the relatively small number of fathers in the study (e.g., $n = 180$ at waves 2 or 3 and $n = 49$ across the two waves), it seemed imprudent to utilize data from fathers in the current analyses.

The current study utilized data from adolescents who completed wave 2 and/or wave 3 and who had a mother in the study ($N = 1150$). Only these two waves were used because social trust was reliably measured for adolescents and mothers at only the later waves. From here forward, waves 2 and 3 will be referred to as time 1 and time 2, respectively.

At time 1, adolescents ranged in age from 11 to 18 ($M = 13.89$, $SD = 1.81$), and 54.3% were female. Regarding ethnicity, 80% of adolescents were White, 11% were Black or African American, 5% were Latino, and 4% were of another ethnicity. The vast majority of mothers were biological parents; 5 were stepmothers and 4 were guardians. Most mothers reported completing either a high school education (33%) or some college or a community college degree (40%); 25% reported a bachelor's degree or higher and 2% did not finish high school. Family income was lower than $30,000 for 22% of the sample: 24% had family income between $30,001 and $50,000, 4% reported between $50,001 and $100,000, and 10% reported a family income of more than $100,000. The income for the largest proportion of families in our sample was comparable to the median household income for the regions surveyed ($53,317) according to U.S. Census data (www.census.gov).

Missing Data

To reduce biases to inferences due to missing data, we employed multiple imputation of missing data. Using SAS PROC MI, 40 datasets were imputed as recommended to maximize power (Graham, Olchowski, & Gilreath, 2007). The imputation included all measures utilized in analyses across as many waves as possible as well as all tested interaction terms (69 variables in total). Data were set to impute after 114 iterations, based on convergence of the expectation maximization (EM) model. The multiple imputation model converged in 64 iterations, based on EM posterior mode. Diagnostic plots of each variance, covariance, and autocorrelation indicated normality in data augmentation. Relative efficiency estimates for all regression models were above 99%, demonstrating the acceptability of the imputation.

Thus, the 40 multiply imputed datasets were used to conduct multiple regression models to test our hypotheses, and all other descriptive analyses were derived from an EM dataset. The EM algorithm provides excellent maximum likelihood estimates for descriptive parameters (e.g., means, correlations; see Graham, Cumsille, & Elek-Fisk, 2003). Given that scales were not imputed at the item level, Cronbach's alpha coefficients are reported from the original dataset.

Measures

Social trust.

Adolescents and mothers reported their social trust using two items: (a) "In general, most people can be trusted", and (b) "Most people are fair and don't take advantage of you". Cronbach's alphas for adolescent reports were .67 at time 1 and .72 at time 2, and alpha was .70 for mothers at time 2. Mothers' social trust was only measured at time 2. Response options ranged from *strongly agree* (5) to *strongly disagree* (1), and items were averaged to create scale scores. These same items have been used consistently since the 1970s to measure social trust and are utilized in nationally representative surveys such as the General Social Survey and Monitoring the Future.

Family communication.

Family communication was operationalized using three constructs, all with response options of *strongly disagree* (1) to *strongly agree* (5). Eight items measured family value messages of compassion from mothers' and adolescents' perspectives. Mothers' reports began with "I tell my children…" and represent the value messages they reported communicating to their adolescent (α = .77 at time 1 and .81 at time 2); adolescents' reports began with "My parents tell me…" and represent value messages they reported hearing from their parents (α = .87 at time 1; α = .88 at time 2). Content of the 8 items consisted of "be helpful to others, especially the less fortunate," "respect people no matter who they are," "treat everyone equally," "not to judge people before you get to know them," "stand up for others, not just yourself," "everyone deserves a fair chance," and "I [my parents] get angry when I [they] hear about people being treated unjustly." The 8 items were averaged to create scores for mothers and adolescents, respectively. Items were adapted from Katz and Hass (1988) and have been used in previous studies (Flanagan & Tucker, 1999).

Four items measured value messages of *caution*. Items began with the same stem as compassion items and content included, "sometimes people take advantage of you," "you can't always trust people," "stick up for your rights if someone pushes you around," and "there may be times that people will judge you before they get to know you." Reliability was acceptable for mothers (α = .58 at time 1 and .59 at time 2) and adolescents (α = .70 at time 1; α = .77 at time 2). The four items were averaged to create scale scores for mothers and adolescents, respectively.

Democratic parenting was measured by three items capturing parents' respect for adolescents' opinion and willingness to listen to adolescents and let them have input (Fuligni & Eccles, 1993). Specific items for adolescents included: "My parents let me have my say, even if they disagree," "My parents respect my opinions," and "In my family, we take the time to listen to each other's views". The first two items were reworded to capture mother reports. Cronbach's alphas were .80 at time 1 and .82 at time 2 for adolescents, and alpha was .77 for mothers at time 1 and .79 at time 2. Items were averaged to create scales for adolescents and mothers, respectively.

Control variables.

Adolescents' age, gender (*male*=1, *female*=0), and race/ethnicity (dummy variables for *Black*, *Latino*, and *Other*, with *White* as the reference category) were included as demographic control variables. For certain analyses, age was categorized into three groups based on age at time 1: Early adolescents ($n = 351$) were 11 to 12, middle adolescents ($n = 362$) were 13 to 14, and late adolescents ($n = 437$) were 15 to 19. In addition, mothers reported their level of education using a 5-point scale, where options were *Didn't finish high school* (1), *High school diploma or GED* (2), *Some training after high school or community college degree* (3), *Bachelor's or 4-year degree* (4), and *Master's, Ph.D. or professional degree* (5).

In addition to demographics, two additional variables related to friends and neighborhood were entered in an attempt to account for extra-familial contexts that may also contribute to the development of adolescents' social trust. We examined adolescents' reports of these constructs at time 1 so that constructs would predict change in social trust from time 1 to time 2. Response options ranged from *strongly disagree* (1) to *strongly agree* (5), and scale scores were created by averaging items. Specifically, *trusted friendship* was measured by 5 items: "When I'm having trouble, I have friends I can ask for help and advice," "My friends can count on me to keep a secret," "I stick up for my friends when someone says something mean about them," "I have friends I can trust to keep a secret," and "My friends mean a lot to me, I'd do anything for them." Cronbach's alpha was .82. *Positive neighborhood climate* was operationalized using 5 items, for which adolescents were first asked to think about the neighborhood or community in which they lived and then respond to the following: "Adults are nice to young people," "People feel safe," "Most people try to make this a good place to live," "Most people trust each other," and "When someone moves here, people are nice to them." Cronbach's alpha was .84. The trusted friendship (Syvertsen, Flanagan, & Stout, 2009) and neighborhood climate (Flanagan, Gill, & Gallay, 2005) measures were used in previous studies. Trusted friendship and positive neighborhood climate were positively correlated with adolescents' social trust at time 1 ($r = .22$ and $.41$, p's < .001) and time 2 ($r = .13$ and $.30$, p's < .001).

Analytic Plan

We conducted a series of models to address our research questions. In all models, the dependent variable was adolescents' social trust at time 2. Multiple regression analyses examined predictors of adolescents' social trust using adolescents' concurrent (i.e., time 2) reports of family communication (Model 1), mothers' concurrent (i.e., time 2) reports of family communication (Model 2), and adolescents' lagged (i.e., time 1) reports of family communication (Model 3). All models included adolescents' previous wave (i.e., time 1) social trust and mothers' concurrent (i.e., time 2) social trust and controlled for age, gender, race/ethnicity, mothers' education, trusted friendship, and positive neighborhood climate. Main effects were first examined, and subsequently two-way interactions among family communication variables were tested. In addition, two-way and three-way interactions with family communication variables and gender were examined. None of the interactions were

significant at $p < .05$; non-significant interactions were pruned from the final models and are not presented or further discussed due to space limitations.

Results

Descriptive Statistics

Age group comparisons.—Means and standard deviations for the full sample and for early, middle, and late adolescents are reported in Table 1. Adolescents' social trust at times 1 and 2 showed a pattern in relation to age group. A one-way ANOVA revealed that adolescent time 1 social trust differed by age group, $F(2, 1149) = 13.05$, $p < .001$, and Tukey's posthoc follow-ups showed that, as hypothesized, early adolescents had higher social trust ($M = 3.36$) than middle ($M = 3.15$, $p < .01$) or late adolescents ($M = 3.04$, $p < .001$). A similar pattern emerged at time 2, $F(2, 1149) = 7.92$, $p < .001$, such that early adolescents had significantly higher social trust ($M = 3.21$) compared to late adolescents ($M = 2.97$, $p < .001$).

Adolescents' perceptions of parental compassion messages differed by age at time 1 only, $F(2, 1149) = 4.53$, $p < .05$. Tukey's post-hocs showed that early adolescents reported hearing more compassion messages from parents ($M = 4.20$) than middle ($M = 4.10$, $p < .05$) or late ($M = 4.08$, $p < .05$) adolescents. Similarly, adolescents' perceptions of parental caution messages also differed by age at time 1 only, $F(2, 1149) = 3.48$, $p < .05$, and follow-ups showed that early adolescents reported more caution ($M = 4.18$) than middle adolescents ($M = 4.06$, $p < .05$). Adolescents' reports of democratic parenting differed by age at time 1 only, $F(2, 1149) = 11.84$, $p < .001$, such that early adolescents reported higher levels ($M = 3.83$) than middle ($M = 3.54$, $p < .001$) or late ($M = 3.57$, $p < .001$) adolescents. In summary, early adolescents endorsed higher social trust as well as higher levels of family communication indicators (only at time 1) compared to the other groups.

Turning to mothers, mother reports of compassion messages at time 1 differed by adolescent age, $F(2, 1149) = 4.02$, $p < .05$, and Tukey follow-ups revealed that mothers reported communicating more compassion messages to early adolescents ($M = 4.28$) compared to late adolescents ($M = 4.19$, $p < .05$). There were no differences by adolescent age for mother reports of caution messages or democratic parenting at time 1 or time 2. In addition, age differences were not found for mothers' social trust, i.e., there were no differences in mothers' reports of their own social trust based on the age of their adolescents.

Mother-adolescent comparisons.—In comparing mean levels of social trust at time 2 for adolescents ($M = 3.09$) and mothers ($M = 3.13$), a paired samples t-test revealed no differences, $t(1149) = 1.28$, $p = .20$. Mother reports of compassion messages ($M_{T1} = 4.22$ and $M_{T2} = 4.18$) were higher than adolescent reports ($M_{T1} = 4.12$ and $M_{T2} = 4.10$) at time 1 ($t(1149) = 4.86$, $p < .001$) and time 2 ($t(1149) = 3.76$, $p < .001$). The same was true for democratic parenting: mother reports ($M_{T1} = 4.16$ and $M_{T2} = 4.20$) were higher than adolescent reports ($M_{T1} = 3.64$ and $M_{T2} = 3.55$) at both time 1 ($t(1149) = 18.50$, $p < .001$) and time 2 ($t(1149) = 23.49$, $p < .001$). In contrast, adolescents reported higher family messages of caution ($M_{T1} = 4.12$ and $M_{T2} = 4.12$) than did mothers ($M_{T1} = 4.06$ and $M_{T2} = 3.96$), and this difference was significant at time 1 ($t(1149) = -2.89$, $p < .01$) and

time 2 ($t(1149) = -7.57$, $p < .001$). In summary, mothers were higher on reports of family communication of compassion and democratic parenting compared to adolescents, whereas adolescents reported hearing more caution from parents than mothers reported.

Gender comparisons.—Descriptive analyses also compared male and female adolescents on the main variables of interest with a series of independent samples t-tests. For adolescents' social trust, males reported higher social trust ($M = 3.15$) than females ($M = 3.04$) at time 2 only, $t(1148) = -2.25$, $p < .05$. Females reported hearing more compassion at both time points ($M_{T1} = 4.19$ and $M_{T2} = 4.20$) than males ($M_{T1} = 4.05$, $t(1148) = 4.12$, $p < .001$); $M_{T2} = 4.00$, $t(1148) = 5.77$, $p < .001$). Similarly, mothers of daughters reported communicating more compassion messages at time 2 only ($M = 4.21$) compared to mothers of sons ($M = 4.15$, $t(1148) = 2.52$, $p < .05$). Females also reported hearing more caution messages at times 1 and 2 ($M_{T1} = 4.17$ and $M_{T2} = 4.21$) than males ($M_{T1} = 4.06$, $t(1148) = 2.83$, $p < .01$); $M_{T2} = 4.02$, $t(1148) = 5.23$, $p < .001$). Likewise, mothers of daughters reported communicating more caution at time 2 only ($M = 4.00$) compared to mothers of sons ($M = 3.93$, $t(1148) = 2.50$, $p < .05$). There were no gender differences in adolescents' reports of democratic parenting. However, mothers of daughters reported higher democratic parenting at time 2 ($M = 4.24$) compared to mothers of sons ($M = 4.16$, $t(1148) = 2.61$, $p < .01$).

Bivariate correlations.—Correlations among adolescent and mother reports of social trust and family communication variables are reported in Table 2. Regarding congruence between adolescents and mothers, there were small positive correlations between adolescents and mothers for social trust, compassion, caution, and democratic parenting; correlations ranged from .13 to .28. Compassion and caution messages were also positively correlated, both among adolescents and among mothers and across both waves. Compassion messages were positively associated with social trust for adolescents as well as mothers; mothers' compassion messages at both time points were positively correlated with adolescents' social trust at time 2. Mothers' caution messages at time 2 were negatively related to their own and their adolescents' social trust. Furthermore, adolescents' perceptions of democratic parenting were positively correlated with their social trust within waves and when examining time 1 democratic parenting and time 2 social trust.

Regression Models

Multiple regression results for the full sample are shown in Table 3. Adolescents' social trust at time 2 was the dependent variable across models.

Control variables.—Across models, adolescents' social trust was higher among males. Age and race/ethnicity were not significant predictors of social trust. Mothers' education predicted adolescents' social trust significantly in Model 1 and at a trend level in Model 2, such that, unexpectedly, lower maternal education was associated with higher adolescent social trust. In addition, social trust at time 2 was strongly positively predicted by adolescents' social trust at time 1, suggesting some continuity in adolescents' social trust across a period of one year. Also across models, mothers' social trust at time 2 predicted

adolescents' social trust at the same time point. These findings indicated that when mothers' social trust was higher, their adolescents also reported higher social trust, and vice versa.

In examining the role of trusted friendship and positive neighborhood, only neighborhood climate significantly predicted adolescents' social trust. This effect was significant across models and indicated that when adolescents perceived a positive climate in their neighborhood, they were more likely to report higher social trust one year later.

Family communication.—In Model 1, adolescent concurrent (i.e., same wave) reports of family communication were used to predict their social trust. Family compassion messages positively predicted adolescents' social trust, indicating that, as hypothesized, when adolescents' perceived that they heard more compassion messages from parents, they tended to report higher social trust. Democratic parenting also positively and concurrently predicted social trust, suggesting as expected that when adolescents felt respected and listened to by parents, they tended to report higher social trust. The effect for family caution messages was marginally significant in the expected direction; this trend-level result suggested that hearing more caution messages was related to lower social trust among adolescents.

Model 2 utilized mothers' concurrent reports of family communication to predict adolescents' social trust. Results indicated a marginally positive association between mothers' compassion messages and adolescents' social trust. Although at a trend level only, this finding was consistent with adolescent reports in Model 1 in suggesting that mothers reporting higher messages of compassion were more likely to have adolescents with higher social trust. No other main effects for family communication predicted social trust.

In Model 3, adolescents' reports of family communication at time 1 were used to predict their social trust at time 2. After controlling for other factors, no family communication effects were significant in this model.

Regression Models for Three Age Groups

To further understand social trust by age, multiple regression models using adolescent concurrent reports of predictors were conducted separately for early, middle, and late adolescent groups (see Table 4). Adolescent concurrent reports (Model 1) were chosen as the focus because this model demonstrated the strongest effects regarding family compassion messages in the full sample.

Starting with early adolescents, gender was not a significant predictor of social trust as it was in the full model. Black youth reported lower social trust, and positive neighborhood climate was associated with higher social trust at a trend level only. Consistent with the full model, adolescents' previous wave social trust and mothers' social trust positively predicted early adolescents' social trust (although mothers' social trust was marginally significant only). As in the full model, compassion messages and democratic parenting positively predicted social trust for early adolescents, yet the effect for compassion messages was marginally significant; these findings suggested that when early adolescents perceived

higher compassion messages and democratic parenting in the family environment, they tended to report higher social trust.

Middle adolescents showed a stronger pattern of results. The effect for Black adolescents was not significant. Gender was marginally associated with social trust, in the same direction as for the full sample, indicating that males in middle adolescence trended toward having more trust. In addition, adolescents' previous wave social trust remained a strong predictor of social trust, but mothers' social trust was not related to trust for middle adolescents. Likewise, positive neighborhood climate was again associated with higher social trust. Regarding family communication, middle adolescents' reports of family compassion messages and democratic parenting were positively related to social trust, whereas caution messages were negatively related to social trust. In other words, middle adolescents who heard compassion messages and democratic parenting reported higher social trust on average, whereas middle adolescents who heard caution messages from parents reported lower social trust on average.

In late adolescence, gender predicted social trust in the same direction as for the full sample such that males tended to have higher social trust. Positive neighborhood climate predicted higher social trust for late adolescents, similar to results for other age groups and the full sample. Adolescents' previous wave social trust was strongly positively associated with late adolescents' social trust, but as in middle adolescence, mothers' social trust was not related. The only family communication factor that significantly predicted late adolescents' social trust was compassion; when late adolescents heard more compassion messages within the family, they were more likely to report higher social trust.

Discussion

For more than fifty years, scholars have noted the relevance of the disposition to trust others for democratic governance. In the 1950s when Morris Rosenberg (1956) first developed a scale to measure social trust, which he referred to as "faith in people", he argued that this belief was implied in the democratic doctrine's assumption that people are capable of governing themselves. Despite the importance of this psychological disposition to democracy (Sullivan & Transue, 1999) and despite theory pointing to the formative underpinnings of this belief (Uslaner, 2002), we know little about its developmental foundations. The current study sheds some light on the development of social trust between early and late adolescence and the processes within families that contribute to this belief.

Comparisons of early, middle, and late adolescents showed that, whereas social trust is higher in early adolescence and lower in middle and late adolescence, mothers' beliefs about whether other people are generally fair and trustworthy did not differ by the age of their adolescents. Consistent with other work (Flanagan & Stout, 2010), there was an age-related decline in social trust among adolescents but mothers' social trust was unaffected by the age of her child. Thus, mothers may transmit this disposition to adolescents in the same ways regardless of age; the link between mothers' and adolescents' social trust may also reflect genetic heritability of trust or shared environmental influences. Age group differences also were found for adolescents' reports of family communication with early adolescents at

time 1 more likely than middle or late adolescents to report that their parents emphasized compassion for and caution about other people and also that their parents respected their opinions. We had not predicted these age patterns, but they may suggest that mothers communicate more often about values with early adolescents and less often with older adolescents; middle or late adolescents may more time in activities away from family or mothers may expect that adolescents at this age have already internalized the value messages.

Although we did not hypothesize gender differences, such differences were found: At time 2, adolescent males reported higher social trust than their female peers and over time, adolescent females reported greater emphasis on both compassion and caution in their families. Mothers' reports provided some confirmation for these gender differences: At time 2, mothers of daughters were more likely than mothers of sons to report that they emphasized compassion as well as caution in their parenting. Our findings regarding compassion seem consistent with other work finding that parents discuss emotions and relational contexts more often with their daughters than with their sons (Kochanska & Thompson, 1997), and both parents and children report that parents emphasize more prosocial behaviors among daughters than sons (Eisenberg & Sheffield Morris, 2004). Results for caution also fit with prior work indicating that parents may be more restrictive of daughters' (as compared to sons') behaviors (Madsen, 2008). Perhaps adolescent boys report higher social trust because they hear less caution messages in families, an idea to be explored further in other studies.

The study also revealed that, whereas some crystallization of the belief that people generally are trustworthy has occurred by early adolescence, social trust can potentially be altered throughout the adolescent years by parenting practices. For all three age groups, adolescents' social trust in year 1 was a significant predictor of their beliefs one year later. That said, different family factors predicted increases in social trust for the three age groups of adolescents. Whereas democratic parenting (perceptions that parents respect the youth's autonomous opinions) increased early and middle adolescents' social trust, it had no effect on late adolescents' social trust. Conversely, when middle- and late-adolescents heard that they should exercise compassion for other people, their belief in the trustworthiness of people increased; for early adolescents, compassion had no significant association (although it trended in the same direction). Finally, middle adolescents were the only group for whom admonitions to be cautious, lest others take advantage of them, diminished social trust. Thus, caution messages, when emphasized at a certain time during adolescence, may be detrimental for social trust. More broadly, though in need of replication in other samples, the different age patterns we uncovered suggest that adolescents may be sensitive to different kinds of parenting practices depending on developmental stage. Developmental processes that build social trust may dynamically change across adolescence based on personal experiences and unique developmental contexts.

Importantly, it was messages about how to treat others that the *adolescents heard* and not those that mothers reported that most predicted social trust. Adolescents actively interpret interactions with parents based on their perceptions of the appropriateness of parental messages, and these perceptions inform adolescents' ideas and behaviors (Padilla-Walker

& Carlo, 2004). Thus, adolescents' choices about the parenting messages they take to heart, rather than what mothers say they communicate, may ultimately inform how social trust develops. Though we predicted this pattern based on theory, an alternative explanation is that shared method variance could explain the larger association of adolescents' perception of parenting with their social trust. A useful endeavor for future research would entail exploring the reasons for low correlations among mother and adolescent reports of family communications.

Furthermore, results were strongest when using concurrent adolescent reports of family communication. Thus, controlling for social trust levels in the prior year, these adolescents' beliefs about the general trustworthiness of people in year 2 were predicted by messages from parents they were hearing at that same time. Consistent with other work which showed that an adolescent's sense of solidarity at school boosted their social trust over time (Flanagan & Stout, 2010), these results suggest that adolescents' beliefs about whether people generally are trustworthy have not hardened, are still forming, and can be boosted by experience. In particular, family communication with their adolescents about compassion and democratic parenting seems to play an important role in the development of social trust. Longitudinal prediction of parenting values and practices for social trust was not evident in our study, and it may be that these messages about others are communicated in response to day-to-day situations rather than remaining stable and consistent over time.

With respect to our control variables, contrary to our prediction that interpersonal trust with friends would be related to early adolescents' social trust, reports of trusting friendships were not uniquely related to social trust for any age group, suggesting that adolescents distinguish trust in friends they know well from their beliefs about the trustworthiness of people in general. However, adolescents' reports that they lived in a neighborhood where people were nice to and trusted one another was positively associated with social trust for all age groups. Although this study did not assess adolescents' involvement in community-based groups, other work has shown that belonging to such groups, especially when they engage in volunteer work, is correlated with adolescents' perceptions that trust, open-mindedness, and collective efficacy characterize the people in their neighborhood (Flanagan et al., 2005).

Concerning race and ethnicity, we found only one effect: Among early adolescents, African-Americans reported lower levels of social trust. That result is consistent with the lower social trust reported by African-American adults (Smith, 1997; Uslaner, 2002). It also resonates with research on racial socialization, indicating that it is a common practice in many African-American families to prearm children for the bias from others they may encounter in life (Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006).

With the family communication and control variables in the model, mothers' beliefs about the trustworthiness of people did predict their adolescents' social trust. However, aside from the compassion and caution messages tapped in this study, we cannot say how mothers' beliefs about others get translated into family practices. This question is a matter for future research. At the bivariate level, maternal reports of emphasizing compassion were positively related both to her own and to the adolescent's social trust. Conversely, maternal reports

of emphasizing caution in dealing with people (being on guard lest some people take advantage) were negatively correlated with her own and with the adolescent's social trust. Taken together with the regression analyses, we can conclude that adolescents are more likely to believe that people in general are trustworthy and fair rather than out for their own gain when they hear from parents that they have a responsibility to treat all people equally with care, respect, and open-mindedness.

There were several limitations of this study. First, similar to previous studies of values, the correlations between mothers' and adolescents' reports of compassion, caution, and democratic parenting were low. Whereas several developmental processes may be responsible for this incongruence, several methodological explanations may also apply. For example, adolescents were reporting on *parents*' communication about other people and styles of parenting whereas mothers were reporting only on what they themselves did. Thus, discrepancies could be due to the variance not being captured by father reports in this study. It is possible that fathers and mothers play different roles in communicating about trust, and thus, agreement between parent-adolescent trust would likely be higher if we had measured both parents' reports. Also, adolescents may perceive parental messages about compassion from other sources besides explicit verbal communication, for example, when parents get their children involved in volunteer work to benefit people in need. Furthermore, there is likely heterogeneity in the degree to which adolescents accurately perceive maternal value messages (Grusec & Goodnow, 1994; Knafo & Schwartz, 2003). Some adolescents may accurately perceive what is going on in the family whereas others do not. Although we concluded that adolescents' reports of parental values communication are more informative for the development of social trust than are maternal reports, an alternative explanation for our findings is that more trusting adolescents may have more positive views of their interactions with parents, regardless of what mothers report. This important question should be addressed in future research.

A second limitation, as noted, is the lack of paternal data due to the low response rate from fathers. Fathers likely communicate important messages about how one should treat others and fathers' beliefs about the trustworthiness of people may complement or contradict mothers' beliefs. Future research should test whether processes operate the same way for fathers as mothers and whether two parents communicating the same message increases the accuracy of adolescents' perceptions and their internalizations of parental values (see Boehnke, 2001).

Third, in our regression models, independent variables are predicting change in social trust from time 1 to time 2 for the whole sample. Other methods, such as latent change models, could explore unique patterns of change over time for individuals rather than at the sample level to help us better understand how social trust changes and the variability in that change across adolescents. Finally, we focused on families as a context in which adolescents' beliefs about the trustworthiness of people are formed. Clearly there are other sources (faith-based organizations, schools, political pundits and leaders, and media to name a few) that inform adolescents' beliefs about the trustworthiness of people. Future research should cast a wider net to explore various socialization contexts important to adolescents' civic development.

Social trust reflects a willingness to give unfamiliar others the benefit of the doubt and, for this reason, it is a disposition that is crucial to democratic societies. As those societies become more heterogeneous, it is incumbent on social science to point to ways that their members can be open toward and tolerant of the perspectives of diverse others. The results of this study suggest that, although there is some crystallization of this disposition during adolescence, there also are family processes that contribute to change in these beliefs. Mothers' beliefs that people generally are trustworthy are positively correlated with the beliefs of their adolescent children. However, even more important to boosting adolescents' social trust are adolescents' reports of democratic parenting (in which both parent and adolescent respect one another's views) and especially their reports that parents tell them to treat other people with values of compassion. Consistent with Uslaner's (2002) theory that social trust reflects a moral stand, the values about how to treat others that adolescents hear from their parents are foundational to this democratic disposition.

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Table 1.

Descriptive Statistics for Full Sample and for Three Adolescent Age Groups

Variables	Full Sample N = 1150		Early Adolescence (11–12) N = 351		Middle Adolescence (13–14) N = 362		Late Adolescence (15–19) N = 437	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Social Trust								
Adolescent T1	3.17	0.87	3.36	0.85	3.15	0.88	3.04	0.86
Adolescent T2	3.09	0.84	3.21	0.86	3.11	0.85	2.97	0.81
Mother T2	3.13	0.67	3.10	0.64	3.12	0.69	3.15	0.69
Compassion								
Adolescent T1	4.12	0.59	4.20	0.49	4.10	0.60	4.08	0.64
Adolescent T2	4.10	0.59	4.11	0.57	4.09	0.57	4.11	0.64
Mother T1	4.22	0.45	4.28	0.42	4.22	0.47	4.19	0.45
Mother T2	4.18	0.43	4.19	0.42	4.17	0.44	4.19	0.43
Caution								
Adolescent T1	4.12	0.62	4.18	0.59	4.06	0.65	4.12	0.43
Adolescent T2	4.12	0.64	4.13	0.63	4.12	0.61	4.13	0.68
Mother T1	4.06	0.49	4.08	0.50	4.09	0.47	4.01	0.49
Mother T2	3.96	0.45	3.97	0.44	3.94	0.46	3.98	0.46
Democratic Parenting								
Adolescent T1	3.64	0.89	3.83	0.87	3.54	0.92	3.57	0.88
Adolescent T2	3.55	0.90	3.50	0.94	3.53	0.86	3.60	0.88
Mother T1	4.16	0.49	4.17	0.51	4.14	0.49	4.18	0.48
Mother T2	4.20	0.51	4.23	0.54	4.20	0.48	4.18	0.49
Demographics								
Male	0.46	--	0.49	--	0.44	--	0.44	--
White	0.80	--	0.79	--	0.78	--	0.84	--
Black	0.11	--	0.11	--	0.14	--	0.08	--
Hispanic	0.05	--	0.06	--	0.05	--	0.03	--
Other	0.04	--	0.04	--	0.03	--	0.05	--
Mothers' Edu.	2.99[a]	0.96	2.98	0.92	2.94	1.01	3.04	0.94
Other Controls								
Friendship	4.21	0.65	4.26	0.61	4.17	0.69	4.20	0.64
School	2.94	0.88	3.31	0.81	2.88	0.87	2.70	0.84
Neighborhood	3.53	0.80	3.76	0.77	3.47	0.86	3.40	0.73

Note. Descriptive statistics are reported from the EM dataset.

SD = Standard Deviation. Standard deviations not shown for proportions.

[a] Mothers' education measured on a 5-point scale.

Table 2.

Correlations among Adolescent and Mother Reports of Social Trust and Family Communication

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) A ST T1	1													
(2) A ST T2	.40***	1												
(3) M ST T2	.17***	.22***	1											
(4) A Comp T1	.20***	.18***	.07	1										
(5) A Comp T2	.03	.23***	−.003	.48***	1									
(6) M Comp T1	.02	.10*	.13**	.13**	.20***	1								
(7) M Comp T2	.05	.17***	.17***	.06	.16***	.58***	1							
(8) A Caut T1	.02	.03	−.12*	.48***	.26***	.002	−.04	1						
(9) A Caut T2	−.16***	.02	−.22***	.27***	.65***	.04	−.001	.39***	1					
(10) M Caut T1	−.07	−.002	−.22***	.06	.08	.19***	.13**	.13**	.16***	1				
(11) M Caut T2	−.15***	−.10*	−.25***	.02	.13**	.13**	.31***	.13**	.28***	.53***	1			
(12) A Dem T1	.16***	.10*	.04	.54***	.33***	.11*	−.01	.40***	.20***	.01	−.04	1		
(13) A Dem T2	.08	.25***	.05	.29***	.50***	.05	.03	.19***	.29***	.04	−.01	.47***	1	
(14) M Dem T1	−.08	.02	.01	.21***	.17***	.41***	.29***	.16***	.17***	.25***	.24***	.20***	.11*	1
(15) M Dem T2	−.03	.09*	.05	.11*	.17***	.27***	.46***	.02	.14**	.23***	.34***	.04	.21***	.45***

Note. Correlations reported from the EM dataset. A = Adolescent. M = Mother. ST = Social Trust. Comp = Compassion Messages. Caut = Caution Messages. Dem = Democratic Parenting. T1 = Time 1. T2 = Time 2.

†
$p < .10$,

*
$p < .05$,

**
$p < .01$,

***
$p < .001$.

$N = 1150$.

Table 3.

Multiple Regression Models with Family Communication Predicting Adolescents' Social Trust

	Model 1: Adolescent Concurrent Reports	Model 2: Mother Concurrent Reports	Model 3: Adolescent Lagged Reports
Intercept	1.89 ***	1.44 ***	1.43 ***
Control Variables			
Age	−.02	−.01	−.02
Gender (Male=1, Female=0)	.14 **	.11 *	.12 *
Race: Black	.02	−.02	−.02
Hispanic	−.10	−.15	−.14
Other	−.16	−.25	−.23
Mothers' Education	−.06 *	−.05 †	−.04
Trusted Friendship	−.03	.001	−.01
Positive Neighborhood Clim.	.13 ***	.18 ***	.17 ***
Social Trust			
Adolescents' ST[a] T1	.24 ***	.27 ***	.27 ***
Mothers' ST[a] T2	.13 **	.12 *	.14 **
Family Communication			
Compassion Messages	.30 ***	.13 †	.10
Caution Messages	−.09 †	−.09	−.03
Democratic Parenting	.12 ***	.05	−.02
R^2 Total	.26	.20	.21

Note. N = 1150. Unstandardized betas reported. Pooled estimates across multiply imputed datasets are shown.

†
p .10,

*
p .05,

**
p .01,

***
p .001.

[a]ST = Social Trust.

Table 4.

Multiple Regression Model with Adolescent Reports of Family Communication at Time 2 Predicting Time 2 Social Trust for Three Adolescent Age Groups

	Early Adolescence (11–12) $N = 351$	Middle Adolescence (13–14) $N = 362$	Late Adolescence (15–19) $N = 437$
Intercept	1.81[***]	1.68[***]	1.39[***]
Control Variables			
Gender (Male=1, Female=0)	−.01	.19[†]	.21[*]
Race: Black	−.34[*]	.22	.10
Hispanic	−.19	−.04	−.02
Other	−.31	−.01	−.11
Mothers' Education	−.02	−.08	−.06
Trusted Friendship	−.04	−.02	−.05
Positive Neighborhood Clim.	.13[†]	.12[*]	.14[*]
Social Trust			
Adolescents' ST[a] T1	.23[***]	.23[***]	.26[***]
Mothers' ST[a] T2	.15[†]	.09	.12
Family Communication			
Compassion Messages	.20[†]	.39[***]	.31[**]
Caution Messages	.02	−.22[*]	−.08
Democratic Parenting	.16[**]	.14[*]	.08
R^2 Total	.26	.25	.29

Note. Unstandardized betas reported. Pooled estimates across multiply imputed datasets are shown.

[†] p .10,

[*] p .05,

[**] p .01,

[***] p .001.

[a] ST = Social Trust.