

The Relations of Maternal and Social Environments to Late Adolescents' Materialistic and Prosocial Values

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Organismic theories and recent research suggest that environments that do not support growth and self-expression are associated with valuing financial success relatively more than affiliation, community feeling, and self-acceptance. This prediction was investigated in a heterogeneous sample of 18-year-olds using a variety of methods and informants. Teenagers who rated the importance of financial success aspirations relatively high compared to other values were found to have mothers who were less nurturant. Further, materially oriented teenagers grew up in less advantageous socioeconomic circumstances and were raised by mothers who especially valued the teens' financial success. Discussion focuses on explicating the different ways values are acquired.

The culture and social circumstances in which persons are embedded have an immense influence on their behavior, beliefs, and values (Deci & Ryan, 1985b; Sameroff, 1987; Sameroff & Fiese, 1990; B. Schwartz, 1990). United States culture in particular encourages individuals both to aspire for financial success and to value family, community, and personal growth as important aspects of life. Yet recent empirical research suggests that these materialistic and prosocial values are rather inconsistent with each other. For example, S. H. Schwartz and Bilsky (1987, 1990) found across several cultures that in circumplex models of people's value configurations, affiliative and prosocial values are antipodal to those for individual achievement. Similarly, Richins and Dawson (1992) found that the more people valued materialism, the less they valued "warm relationships with others." Further, Kasser and Ryan (1993) demonstrated in three samples that late adolescents evidenced lower well-being (e.g., more depression, lower global adjustment and self-actualization) when aspirations for financial success were highly valued relative to aspirations for self-acceptance, affiliation, or community feeling.

Although this literature suggests that a focus on external rewards and praise runs generally counter to prosocial and affiliative values, it is important to emphasize the relative nature of the results. Values can be most meaningfully understood only

when their relative centrality is considered (Rokeach, 1973). That is, both potential conflict between values and values' relationships to other variables depend on the overall configuration of people's value systems, which necessarily implies that the importance of a particular value is assessed in comparison with other values.

The current study expands on this literature by examining the idea that people who especially value financial success, relative to prosocial values, have experienced maternal and social environments that are less supportive of growth, self-expression, and intrinsic needs. This prediction stems from both empirical and theoretical work, to which we now turn.

Issues Concerning the Origins of Values

The process by which values are acquired has been widely discussed but surprisingly little researched. Most theorists agree that values are strongly influenced by socialization patterns within the family (Kilby, 1993) and take as their point of departure the idea that value transmission is accomplished through a process of *identification* in which children emulate the values of their caretakers. Typically it has been argued that identification with parental values is facilitated by certain characteristics of the parents—most especially warmth (Maccoby, 1980), low power assertive discipline (Hoffman, 1960), and autonomy support (Ryan, 1993; Ryan, Connell, & Grolnick, 1992). These theories thus suggest that children are more likely to internalize values if those values are held by parents and the parents are warm and receptive to their offspring's perspective.

The values that people hold also depend on factors within individuals, such as their personal needs (Kasser, 1992; Maslow, 1954; Rokeach, 1973). Thus the extent to which family environments support people's intrinsic needs may have additional relationships to the values people acquire. For example, A. Kohn (1990) has argued that the experience of growing up in a nurturant, caring, responsive family environment directly facilitates prosocial values by meeting many of children's needs and freeing them from self-preoccupation. This connection between security of attachment and prosocial values has received some empirical support (e.g., Waters, Wippman, & Sroufe, 1979).

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On the other hand, cold, inconsistent, and controlling family environments have been associated with a relative lack of prosocial behavior and a tendency to be aggressive, antisocial, and oriented toward manipulative and hedonically gratifying acts (e.g., Buss, 1966; Kazdin, 1987; McCord & McCord, 1964).

Similar alienating conditions in which people are controlled, contingently valued, and not supported in terms of their own growth and self-expression may also lead them to hold materialistic aspirations as relatively more important than prosocial ones. Humanistic theorists such as Rogers (1964) and Maslow (1954) believe that when parents do not provide safe and supportive environments, children both hide and ignore their own desires so as to sustain security. Later in life, a strong need for security might be expressed by attempts to attain financial success (Maslow, 1954).

In the same vein, Deci and Ryan (1985b, 1991) have argued that parents who are warm and autonomy supportive facilitate the development of a "core organismic self" (Ryan, 1993) by satisfying intrinsic needs for autonomy, relatedness, and competence. Conversely, parents who are cold and controlling force individuals to give up autonomy in order to maintain safety or approval (Ryan & Lynch, 1989; Ryan, Stiller, & Lynch, 1994). Such individuals are likely to be "control oriented," a personality style associated with less self-actualization, more public self-consciousness (Deci & Ryan, 1985a), less emotion-behavior congruence (Koestner, Bernieri, & Zuckerman, 1992), and a higher value placed on financial success (Kasser & Ryan, 1993). Kasser and Ryan (1995) examined these proposed relations between parental styles and the values of college undergraduates, finding that students especially oriented toward financial success perceived their parents as less autonomy supportive, involved, and warm than did students oriented toward more prosocial values. This pilot work and the organismic perspectives mentioned above thus suggest that having mothers who are controlling and cold may lead individuals to believe that their own worth and security hinge primarily on external sources such as money, whereas warm and autonomy-supportive maternal environments may inherently facilitate the development of prosocial and self-acceptance values by nurturing people's needs for growth, self-expression, and love.

Socioeconomic and social-contextual factors can also influence the values people acquire. For example, M. L. Kohn (1977) has argued that, on average, the lower an individual's socioeconomic status, the more likely the person is to have jobs and social roles that require conformity rather than self-direction. These conformist social roles can then influence the values that parents have regarding their offspring. Although the relations between socioeconomic status and parental values for self-direction versus conformity are well supported (see M. L. Kohn, Slomczynski, & Schoenbach, 1986), little research has examined whether parents' socioeconomic status and values are associated with their children's values. Mothers of a relatively low socioeconomic status and those who value conformity more than self-direction may send their children a message that following the demands and strictures of others is more important than following one's own true desires. Such children may then believe financial success is more important than other values.

Another extrafamilial, social factor influencing the development of values is the neighborhood where individuals live. Just as cold and controlling families are associated with aggressive

behavior and a relative lack of prosocial values, dilapidated neighborhoods are associated with more delinquency and conduct disorders (Farrington, 1986). Further, Burns, Homel, and Goodnow (1984) showed that parents from high-risk neighborhoods placed less value on sociability and curiosity than those from lower-risk neighborhoods, perhaps because being curious and sociable is relatively nonadaptive in neighborhoods characterized by poverty and crime. High-risk neighborhoods may thus make individuals feel less secure about their own safety and less able to follow their own intrinsic desires, which may then translate into valuing aspirations that are based on organismic needs relatively less than financial success.

Present Study

From this review, we conclude that personal values, like many other aspects of individuals (e.g., Bronfenbrenner, 1986), evolve in a complex social context in which factors at multiple levels are operating. Among these levels are the parents' child-rearing styles, the family's socioeconomic circumstances, and the parents' own values. The study described below was designed to test hypotheses at each of these contextual levels.

First, we hypothesized that nonnurturant parenting styles on the part of the mother would be associated with a relatively strong focus by adolescents on financial success in comparison to affiliative, community, or self-acceptance values. That is, mothers who are less warm and more cold, and who are less democratic and more controlling, were predicted to have offspring more oriented toward money than toward the other three values. A number of indicators of maternal nurturance were therefore examined in relation to teens' value configurations.

The second hypothesis was that teenagers from less advantageous socioeconomic circumstances are likely to value financial success more than the other three values. Family income and education was therefore examined, as was M. L. Kohn's (1977) parenting value scale. Measures of poverty and crime rates in the family's neighborhood were also assessed as other markers of socioeconomic disadvantage.

Third, we examined the identification model of value transmission. We predicted that mothers who value their child's financial success relatively more than the other three values would be especially likely to have offspring with a similar value configuration. Further, we suggested that the same socioeconomic circumstances associated with teens' relative values would be related to their mothers' relative values.

Method

Participants

Participants included 140 eighteen-year-olds and their mothers who were involved in a follow-up to the Rochester Longitudinal Study. More information on this sample can be found in Baldwin et al. (1993) or Sameroff, Seifer, and Zax (1982). Briefly, the teenagers in this sample included 74 males and 66 females; 67% were Caucasian, 31% African American, and 2% other. The teenagers had a wide range of school outcomes, with 17% in college and 21% having dropped out of school at some point. The teenager's mother was generally interviewed at the same time as the youth, although in seven cases a father, grandmother, or aunt was interviewed instead.¹ Mothers ranged from 32 to 61 years

¹ For purposes of this study, we refer to the parent who was interviewed as the mother, despite these other possibilities.

of age. Twenty-two percent of them were unemployed or receiving some public assistance, whereas 7% had professional jobs according to Hollingshead and Redlich (1958) criteria. Additionally, 15% of the mothers had not finished high school, whereas 20% were graduates of college.

Procedures

After giving informed consent, mother and teenager were interviewed separately for approximately 2 hr. The teenager was seen by a senior clinician and an advanced graduate student in clinical psychology, and the mother was seen by one of two senior developmental psychologists. After the interview, participants were each paid \$25 for their participation.

Measures

Aspiration Index (Kasser & Ryan, 1993). Teenagers rated 14 items regarding a possible future event on two scales: (a) the personal importance that it will happen in the future; and (b) the likelihood it will happen in the future. Aspirations are conceived of as relatively high-level goals (Emmons, 1989), which are desirable states that may occur in the future. Items were written to represent such future states in rather general terms, so that participants could interpret, for example, what "financial success" is to them personally. The importance ratings for four life domains were used in this study. (a) *Self-acceptance* aspirations tap hopes for autonomy, self-esteem, and personal control ($\alpha = .55$). (b) *Affiliation* aspirations express hopes for positive relations with family and friends ($\alpha = .63$). (c) *Community feeling* aspirations involve desires to improve the surrounding world through activism ($\alpha = .64$). (d) *Financial success* aspirations are desires to attain wealth and material success ($\alpha = .73$). See Appendix for items. These four value domains were chosen on the basis of their identification as distinct needs, values, or goals by organismic theorists (e.g., Deci & Ryan, 1985b; Maslow, 1954) and various researchers (e.g., Braithwaite & Law, 1985; Novacek & Lazarus, 1990; S. H. Schwartz & Bilsky, 1987, 1990; Wicker, Lambert, Richardson, & Kahler, 1984).

As can be seen in Table 1, most of the correlations between the teenagers' aspiration scores were significantly positive. Although financial success was less strongly correlated (mean $r = .17$) with the other three values than they were among themselves (mean $r = .30$), these correlations show a general tendency for participants to value aspirations at high or low levels, regardless of their content. This response tendency is one reason why it is important that analyses consider values relative to one another. Despite the general response tendency, exploratory factor analyses with varimax rotation of the 14 items supported the proposed internal structure of the scale. Four factors had eigenvalues above 1.0, and together they accounted for 55% of the variance. Further, all items loaded as predicted and the amount of cross-loading was negligible.

Mothers responded to the same 14 items, rating how important it was to them that the teenager attain each future state. Alphas for the moth-

ers were .66 for self-acceptance, .58 for affiliation, .78 for community feeling, and .46 for financial success. Pearson product-moment correlations among the four aspiration domains for the mothers' ratings are also presented in Table 1. The general response tendency is again evident, but, again, exploratory factor analyses with varimax rotation on the mothers' ratings revealed a four-factor solution that accounted for 58% of the variance. Items generally loaded as predicted, though some cross-loading did occur.

Camberwell Family Interview (Brown & Rutter, 1966). A modified version of this interview assessed the expressed emotion of the mother toward the teenager. Leff and Vaughn (1985) provided an overview of the history of this interview. One of the developmental psychologists conducted this interview and rated the number of statements the mother made that expressed emotion about the child. Two summary variables revealed in factor analyses by Baldwin et al. (1993) were used for the present study: ratings of positive affect (comments reflecting warmth, enjoyment, approval, and pride; $\alpha = .84$) and negative affect (comments reflecting disapproval, criticality, and hostility; $\alpha = .78$). Intraclass reliabilities among five raters in an earlier study ranged between .45 and .60 (Baldwin et al., 1993).

Parental Style Survey (Sameroff, Thomas, & Barrett, 1989). Mothers completed this 68-item questionnaire regarding their own behavior during the teenagers' adolescence. Items consisted of two sentences, of which the mother had to choose one and rate it as somewhat or very true of her behavior. *Warmth* was assessed by 10 items regarding whether the mother shows affection to and appreciation of the teenager ($\alpha = .63$). One item was "Some parents seem to really like their kids BUT other parents don't seem to like their kids." *Control* items concerned the extent to which the mother imposes rules on the teenager ($\alpha = .69$). One of the eight items was "Some parents don't have a lot of rules BUT other parents do have a lot of rules." *Personal role orientation or Democracy* involves allowing teenagers to have their own opinions and not be bound by their age or gender ($\alpha = .63$). "Some parents believe that it's okay for kids to ask questions or give opinions BUT other parents believe that kids should be seen and not heard" was one of the nine items. The subscales are based on factor analyses conducted in other samples spanning socioeconomic situations (Sameroff et al., 1989).

Kohn Parent Values (M. L. Kohn, 1977). Mothers rank ordered 13 values as to how much they valued them in their teenager. M. L. Kohn (1977) found that 8 of the values distinguished between valuing self-direction as opposed to conformity. Conformity values included having good manners; being obedient, neat, and clean; being a good student; and acting consistently with sex-typed behavior. Self-direction values emphasized being interested, responsible, and considerate. High scores represent valuing self-direction more than conformity.

Family socioeconomic status. Families were rated on two variables using the Hollingshead and Redlich (1958) criteria. The mother's and father's education were rated on a 5-point scale and averaged to provide a measure of family education. Occupation was rated for both parents on a 9-point scale, then summed to provide a measure of family income.

Table 1
Intercorrelations of Aspiration Index Subscales for Both Teen (n = 140) and Mother (n = 129)

Subscale	Financial success		Self-acceptance		Affiliation		Community feeling	
	Teen	Mother	Teen	Mother	Teen	Mother	Teen	Mother
Financial success	—	—	—	—	—	—	—	—
Self-acceptance	.19	.25	—	—	—	—	—	—
Affiliation	.15	.34	.24	.23	—	—	—	—
Community feeling	.16	.41	.43	.36	.24	.43	—	—

Note. Pearson product-moment correlations of .19 or greater are significant at $p < .05$.

Mothers' preferred value

		Financial success	Self-acceptance
Teens' preferred value	Financial success	50	22
	Self-acceptance	20	37

$\chi^2 = 15.13***$

Mothers' preferred value

		Financial success	Affiliation
Teens' preferred value	Financial success	34	27
	Affiliation	28	40

$\chi^2 = 2.73*$

Mothers' preferred value

		Financial success	Community feeling
Teens' preferred value	Financial success	41	31
	Community feeling	22	35

$\chi^2 = 4.29**$

Figure 1. Number of teens preferring Financial Success versus Self-Acceptance, Affiliation, and Community Feeling as a function of their mothers' relative preferences for these values. (Cell frequencies and chi-square analyses, $n = 129$). Scores are for the value on which participant is higher. * $p < .10$. ** $p < .05$. *** $p < .01$.

Neighborhood variables. Two neighborhood variables were used, both based on information obtained when the teenager was 13 years old. First was the average family income for the census tract where participants lived. Neighborhood income ranged from \$7,800 to \$59,000 per year ($M = 23.06$, $SD = 9.62$). The second measure was the crimes per

capita per year in the census tract where participants lived. Counts were made of police calls to the participants' neighborhood regarding murders, assaults, robberies, rapes, sexual offenses, larcenies, criminal mischief, disorderly conduct, controlled substances, and simple assaults. The number of these crimes committed in a census tract (averaged over a few years) was divided by the number of people in that census tract, yielding an index of yearly neighborhood crime that ranged from 1 crime per 100 people to 84 crimes per 100 people ($M = 16$, $SD = 13$).

Results

Gender differences in teenagers' aspirations were first examined. Females were higher than males on the importance of self-acceptance (male $M = 14.7$, $SD = 1.6$; female $M = 15.2$, $SD = 1.2$), $t(138) = 1.98$, $p < .05$; community feeling (male $M = 11.4$, $SD = 2.2$; female $M = 12.3$, $SD = 2.2$), $t(138) = 2.36$, $p < .05$; and affiliation (male $M = 13.5$, $SD = 2.6$; female $M = 14.6$, $SD = 2.1$), $t(138) = 2.56$, $p < .05$. We also examined whether mothers rated values differently depending on their child's gender; no significant results were detected.

In order to reduce the large number of maternal and socioeconomic predictor variables, factor analyses were conducted. Factor analysis of the three mother-related parental style subscales and the two interviewer ratings of the mother yielded a single factor solution that accounted for 47% of the variance and on which all five variables loaded above .56. A summary *maternal nurturance* variable was computed by combining the standardized scores for the five ratings ($M = -0.07$, $SD = 3.46$).² Factor analyses were also conducted for the socioeconomic variables (i.e., Kohn Parent Values, family income and education, and neighborhood crime and poverty). One factor emerged that accounted for 59% of the variance and on which all variables loaded above .71. A summary *socioeconomic advantage* variable was computed by combining the standardized scores for each of these variables ($M = 0.10$, $SD = 3.82$). Maternal nurturance and socioeconomic advantage were correlated, $r = .64$ ($p < .01$), suggesting that mothers from more advantageous socioeconomic situations are more likely to be nurturant to their children.

Following Kasser and Ryan (1993), we contrasted the relative importance of financial success to teenagers with each of the other three aspiration domains by forming dichotomous groups. This procedure involved converting all raw aspiration importance ratings to z scores and then assigning a teenager to one of two groups depending on whether his or her z score was higher for financial success or for the other domain. This procedure yielded two groups of individuals for each contrast, one that valued financial success more than, for example, affiliation, and another that valued affiliation more than financial success. A similar procedure was also conducted to yield dichotomous groups for the mothers' ratings on the values.

Pearson product-moment correlations were computed between mothers' values and the two summary environmental variables. The contrast between mothers' value of financial success and self-acceptance was correlated .27 with maternal nurturance and .40 (both $ps < .01$) with socioeconomic advantage. Socioeconomic advantage was also correlated .25 with the con-

² Mothers of males and females did not differ from each other on this summary nurturance variable.

Table 2
Means, Standard Deviations, and *t*-Test Comparisons for Aspiration Contrasts With Maternal (*n* = 117) and Social (*n* = 112) Variables

Environmental variable	FS	vs.	SA	FS	vs.	AF	FS	vs.	CF
Maternal nurturance									
<i>M</i>	-0.88		0.97	-0.83		0.69	-1.09		1.15
<i>SD</i>	3.15		3.60	3.15		3.62	3.35		3.21
<i>t</i>	-2.97***			-2.43**			-3.67***		
Socioeconomic advantage									
<i>M</i>	-1.13		1.74	-1.08		1.28	-0.53		1.03
<i>SD</i>	3.53		3.59	3.55		3.74	3.74		3.78
<i>t</i>	-4.23***			-3.42***			-2.17**		

Note. Scores are for value on which participant was higher. FS = Financial Success; SA = Self-Acceptance; AF = Affiliation; CF = Community Feeling.

** $p < .05$. *** $p < .01$.

trast between financial success and affiliation, and .32 (both $p < .01$) with the contrast between financial success and community feeling. These correlations suggest that mothers who value their children's financial success more than other aspirations are less nurturant and have less advantaged socioeconomic backgrounds.

Relations of Environmental Variables to Teenagers' Values

First, we examined whether the mothers' values were associated with the teens' values. Significant correlations ($p < .05$) were found between mother and teen's self-acceptance ($r = .22$), affiliation ($r = .37$), and financial success values ($r = .21$). To examine whether mothers and teens' value configurations were similar, dichotomous groups for mothers and their children were compared using chi-square analyses; these are reported in Figure 1. Mothers who valued financial success more than self-acceptance were likely to have children with the same value configuration. This pattern of results also held for contrasts of financial success with both affiliation and community feeling, though the former was only marginally significant. We also examined whether the relative centrality of the mothers' values interacted with their child's gender in the prediction of teenagers' value configurations; no significant interactions were detected.

Second, we examined associations between maternal nurturance and the teenagers' values. As can be seen in Table 2, teens who valued financial success more than self-acceptance had mothers who were less nurturant, as assessed through these interviewer and mother reports. A negative relationship between maternal nurturance and the teens' value for financial success was also found for contrasts with both affiliation and community feeling. No interactions with gender were detected.

Socioeconomic advantage was also significantly associated with each of the three contrasts, as reported in Table 2. Teens from less advantageous socioeconomic circumstances valued financial success aspirations significantly more than self-acceptance, affiliation, or community feeling. Examination of interactions with gender found that females from socioeconomically advantaged families were more likely to value community feeling than financial success, $F(1, 108) = 3.87, p < .05$.

To determine whether mothers' aspirations, maternal nurturance, and socioeconomic advantage made independent contributions to adolescents' values, we conducted three regression analyses in which these three summary variables were simultaneously entered into the prediction of the adolescents' relative values. These results are reported in Table 3; positive coefficients indicate valuing financial success relatively less than the other domain. The mothers' relative values for financial success and self-acceptance were significantly associated with the teens'

Table 3
Standardized Regression Coefficients (β s) From Simultaneous Regression of Dichotomous Aspiration Contrasts on the Three Environmental Summary Variables (*n* = 95)

Environmental variable	β		
	FS versus SA	FS versus AF	FS versus CF
Mother's values	.26**	.11	.18*
Maternal nurturance	.04	.06	.28**
Socioeconomic advantage	.23*	.23*	-.04
Total R^2	.19	.10	.11
$F(3, 91)$	6.89***	3.33**	3.87**

Note. Scores are for value on which participant was higher. FS = Financial Success; SA = Self-Acceptance; AF = Affiliation; CF = Community Feeling.

* $p < .10$. ** $p < .05$. *** $p < .01$.

values for these two domains. For the contrast between financial success and community feeling, maternal nurturance was the sole significant positive contributor.³

Last, we examined interactions between the three environmental variables. Codes representing two-way interactions were entered into the regression equation after controlling for the main effects of the environmental variables. Only one was significant, $F(1, 90) = 5.31, p < .01$. Examination of cell means suggested that having a nurturant mother and a socioeconomically advantaged family was especially associated with valuing self-acceptance more than financial success.

General Discussion

Recent research has demonstrated that valuing aspirations for financial success relatively more than self-acceptance, affiliation, or community feeling is associated with lower well-being (Kasser & Ryan, 1993), a finding consistent with organically oriented psychological theories (Deci & Ryan, 1985b, 1991; Maslow, 1954; Rogers, 1964). This study therefore examined the predictions that individuals who are relatively more oriented to financial success than to prosocial and self-acceptance values have experienced maternal and social environments that are less supportive of their growth, self-expression, and intrinsic needs.

The results provided some support for the hypotheses. Late adolescents who placed a relatively high value on financial success in comparison to the other three values had less nurturant mothers. That is, mothers of materially oriented individuals were lower on an index of nurturance composed of self and interviewer ratings of warmth, democracy, coldness, and controllingness. The prediction that individuals who especially valued financial success were likely to have come from more socioeconomically disadvantaged circumstances was also supported. Materially oriented adolescents had mothers who tended to value conformity more than self-direction, who had less education and a lower income, and who raised their children in low-income, high-crime neighborhoods. Results also showed that mothers who especially valued financial success relative to other aspirations had children with similar value configurations. Furthermore, materially oriented mothers also were less nurturant and lived in less advantaged socioeconomic circumstances themselves.

The findings of this study also help disentangle the various influences of environments upon people's values. Most previous work has focused on identification with parental values as the primary means of value acquisition (Kilby, 1993). Some findings supported this model, as mothers' value configurations were generally similar to teenagers' value configurations. A second process investigated in this study involves whether the mother is supportive of the developing person's own needs, growth, and self-expression. When mothers are reported as cold and controlling, their children apparently focus on attaining security and a sense of worth through external sources (Ryan, Deci, & Grolnick, in press), such as financial success. Conversely, warm and democratic maternal environments may convey a sense that the child's own inner desires are important and acceptable, and thus may be associated with valuing aspirations congruent with intrinsic needs.

A third pathway by which values are acquired seems to in-

volve broader sociocultural forces. Teenagers and mothers from more disadvantaged socioeconomic circumstances were found to especially value financial success relative to the other three values. These relations may be due in part to valuing conformity more than self-direction (M. L. Kohn, 1977), which may lead children to pay less attention to their own desires and instead emphasize rewards from external sources. Further, the high-crime, low-income communities in which many people from disadvantaged backgrounds live may make them focus on external sources of worth and security, as oftentimes the intrinsic sources are not supported by, or even adaptive in, such environments (e.g., Burns et al., 1984). Many individuals in such environments may see conformity as necessary to securing a job and financial success as a means of escape, but they may consequently overemphasize money in their value system, relative to other more prosocial and growth-oriented values.

It should be mentioned here that although we have presented these findings in terms of the environmental correlates of financial success, the results also have relevance to the acquisition of prosocial values. The present study suggests that when mothers value prosocial aspirations and are warm and democratic in their parenting styles, their children place greater value on self-acceptance, affiliation, and community feeling. Further, being raised in a more socioeconomically advantaged situation is also associated with greater importance placed on these three prosocial values by teenagers. Thus, this study speaks not only to what parents and societies may do to forestall an overemphasis on materialism, but also suggests how to orient children toward self- and other-enhancing values.

The results of this study could potentially have been stronger if other environmental factors that contribute to the development of values had been examined. For example, schools, peer groups, churches, and the media (e.g., television, commercials, and music lyrics) were left unexamined in the present study, although they likely impact individuals' values. It would be interesting to examine whether identification is the primary mode of value acquisition with regard to media presentations; this seems likely given that children may imitate admired role models such as those seen on television. On the other hand, it may be the case that nurturance is a more important factor in school settings. For example, Ryan and Grolnick (1986) found that when teachers do not support students' needs and desires, students are likely to orient toward extrinsic controls. Perhaps teachers low in nurturance also have students who especially value extrinsic rewards such as financial success and grades.

Fathers are another very important source of values left unexamined in this study. Because aspiring for financial success is traditionally a male-oriented role, it could be that fathers' configurations of values are especially predictive of their children's values. Further, examination of fathers' nurturant or controlling parental styles, which likely differ somewhat in expression from mothers', may also shed further light on how values come to be held to differing degrees by adolescents.

Studies in other cultures also need to be conducted, as this

³ Exploratory hierarchical regression analyses were also conducted to determine if any one environmental variable was predictive of adolescents' values after controlling for the effects of the other two. As suggested by the betas in the simultaneous regressions, no one variable was consistently predictive in these hierarchical regressions.

work is limited by its examination of youths at only one historical point in time in one culture. Citizens of the United States live in an individualist culture in which independence and self-assertion are especially important to a sense of self (Markus & Kitayama, 1991). Markus and Kitayama suggested, however, that different values and needs are relatively important for people with "interdependent" selves who exist in collectivist cultures. Although the content of the values involved may differ, we would predict that interdependent individuals who are especially oriented toward values regarding approval and extrinsic rewards, to the detriment of values congruent with intrinsic needs, are also likely to have experienced less nurturant and more controlling maternal and social environments. That is, although the actual values may change, the dynamic may remain the same.

Other weaknesses of this study that need to be addressed include the narrow age range of the participants, the reliance on self-report measures of values, and the use of concurrent measures of environmental circumstances and personal values. The rather low alphas of some of the Aspiration Index subscales also suggest that a revision of this scale is in order. Additionally, a better test of the identification model would be to examine parents' own personal values, rather than values regarding their child. Finally, it would be interesting to examine whether environments are differentially associated with values such as becoming famous and attractive, which are also based in obtaining rewards from an "other" (Kasser & Ryan, in press).

In summary, this research explored how both maternal and social environments are associated with the relative strength of late adolescents' values. Results showed that nonnurturant maternal behavior and socioeconomic disadvantage are associated with valuing financial success relatively more than self-acceptance, affiliation, and community feeling. Environments that do not provide support for the developing individual's own self-expression and personal needs have been suggested by organismically oriented theorists to be associated with a basic disjunction from actualizing, integrative, and growth tendencies (e.g., Deci & Ryan, 1991; Maslow, 1954; Rogers, 1964) in favor of a concentration on external sources of security and worth that are only fleetingly satisfying. Thus, cold and controlling environments may make individuals feel relatively insecure regarding their personal worth, in that expressions of their own desires are unlikely to be accepted. Individuals who experience such environments may then concentrate on pursuing financial success as a means of obtaining security and a sense of worth.

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Appendix

Aspiration Index Items

Self-Acceptance

- You will be the one in charge of your life.
- At the end of your life, you will look back on your life as meaningful and complete.
- You will deal effectively with problems that come up in your life.
- You will know and accept who you really are.

Affiliation

- You will be married to one person for life.
- You will share your life with someone you love.
- You will have children.

Community Feeling

- You will donate time or money to charity.
- You will teach others the things that you know.
- You will work for the betterment of society.
- You will participate in social or political movements.

Financial Success

- You will have a job that pays well.
- You will be your own boss.
- You will have a job with high social status.

Note. From "A Dark Side of the American Dream: Correlates of Financial Success as a Central Life Aspiration," by T. Kasser and R. M. Ryan, 1993, *Journal of Personality and Social Psychology*, 65, p. 422. Copyright 1993 by the American Psychological Association.

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