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Gender Differences in the Age-Changing Relationship Between Instrumentality and Family Contact in Emerging Adulthood

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Data from the Children in the Community Transitions Study were used to examine gender differences in the impact of family contact on the development of finance and romance instrumentality from ages 17 to 27 years. Family contact decreased among both men and women across emerging adulthood, although it decreased more rapidly in men than in women. Both finance and romance instrumentality increased for men and women across emerging adulthood. The growth rate did not differ between men and women in either domain, although men tended to be characterized by higher levels of instrumentality than women. There were noteworthy gender differences in the impact of family contact on the development of instrumentality. At age 17, family contact was negatively associated with instrumentality for both men and women; at age 27, the impact of family contact on instrumentality was less negative for women and was positive for men.

Keywords: finance and romance instrumentality, gender differences, family contact, emerging adulthood, gender roles

Over the last decade, researchers have become increasingly interested in the developmental changes that occur in emerging adulthood (Arnett, 2000). Until the age of 17 years, most young people live at home with parents, have no children, are not married, and are enrolled in school. By age 30, most have completed their education and are married, and many have their own children.[1] One of the important changes that takes place during this period is the gradual development of autonomy, which consists of two separate but related dimensions: instrumentality (agency) and separateness (Kagitçibasi, 1996). Instrumentality refers to the degree to which an individual is taking responsibility for his or her actions, or "agent-like versus pawn-like (dependent) functioning" (Kagitçibasi, 1996, p. 180). Separateness refers to the degree of distancing of the self from others, and in the context of late adolescence and early adulthood, this refers to the family of origin.

Autonomy has been identified as an intrinsic psychological need that, when realized, promotes mental health and well-being. The failure to develop autonomy, it has been hypothesized, may lead to decreased motivation and lowered self-esteem (Ryan & Deci, 2000). According to Boles (1999), the development of autonomy allows emerging adults to initiate assumption of increasingly adult levels of responsibility, including romantic relationship development and financial independence. Research has indicated that emerging adults tend to consider taking responsibility for the self,

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[1] Although adolescence as a life stage is nearly universal, emerging adulthood is not. Emerging adulthood as a period of development predominantly characterizes industrial societies in which marriage and employment can be postponed and education and exploration extended. In addition to these between-country differences, there are also within-country differences in emerging adulthood that are a function of social class. Historically, minority groups such as African Americans and Hispanics have had more limited educational and career opportunities. Economic circumstances for many members of these groups will not allow for an extended educational period after high school that facilitates exploration of alternative life directions.

making independent decisions, and becoming financially independent as the most important criteria for developing a subjective sense of being a fully functioning, autonomous adult (Arnett, 2000).

Autonomy represents a cornerstone of psychological theories of personality development. For example, Mahler and colleagues (e.g., Mahler, Pine, & Bergman, 1975) maintained that the development of an autonomous and psychological healthy person resulted from the process of separation (i.e., emergence from a sense of oneness with the mother) and individuation (i.e., development of individuality). It has been hypothesized that the separation and individuation process is elaborated during a "second individuation" in adolescence and resolved during a "third individuation," which tends to take place during early to middle adulthood (Colarusso, 1990). Erikson (1963) contended that the development of trust, autonomy, initiative, and industry during childhood provides the building blocks for adolescents to develop a clear sense of themselves, their personal beliefs and values, and their place in the community (i.e., identity achievement).

However, Gilligan (1979, 1982) argued that theories emphasizing the development of autonomy (i.e., instrumentality and separation) may be more characteristic of men's than of women's personality development. She noted that women tended to reason about moral dilemmas in distinctly different ways than men, preferring to consider the web of interpersonal relationships rather than hierarchies and rules. She suggested that attachment, connectedness, empathy, and intimacy may tend to play a more prominent role in women's personality development. Consistent with this perspective, research has indicated that masculinity tends to be associated with a high level of instrumentality (i.e., being decisive, assertive, and independent), whereas femininity tends to be associated with affection, caring, expressiveness, and warmth (Abele, 2003; Bem, 1974; Deaux & LaFrance, 1998; Ruble & Martin, 1998). To the extent that traditionally feminine gender roles are undervalued in a society that values autonomous, independent functioning, low instrumentality may tend to be viewed as being indicative of a developmental deficit. This tendency may be so pervasive that low instrumentality is portrayed negatively in the psychological and psychiatric literature, even when it is associated with positive traits such as interpersonal affiliation, cooperation, and prosocial behavior.

One explanation for these gender differences is that men and women are socialized differently throughout childhood and adolescence (Chodorow, 1978). Differential socialization may also lead to fundamental differences in identity formation among men and women. From this perspective, women's identity formation originates in the context of relationships because girls tend to identify with relationally oriented mothers. Men's identity formation, however, tends to originate in the context of separation because boys tend to identify with their fathers, who are often more distant and unavailable. Cross and Madson (1997) noted that parents are more likely to discuss emotions with girls than with boys and that parents are more likely to assign child-care responsibilities to girls than to boys. Moreover, girls' relationships are characterized by intimate friendships and cooperation, whereas boys' groups are characterized more by competitiveness and rough play. Consequently, women tend to value family affiliation and closeness more than men do, and they tend to view their parents as being a more important source of emotional support than men do (Kenny & Donaldson, 1991). In addition, parental attachment has been found to play a more important role in identity formation among women than among men (Palladino & Blustein, 1991). Further, close family relationships have been found to be more strongly associated with psychological well-being among women than among men during adolescence and early adulthood (Johnson, 1993; Kenny & Donaldson, 1991; Lopez, Campbell, & Watkins, 1988; Mann, 1988).

Such differences in socialization have important implications for the development of autonomy (instrumentality and separateness) in emerging adulthood. To function independently and to take on mature role responsibilities (instrumentality), a person must devote an increasing amount of time and energy to activities and relationships outside the family (separation). This requires becoming emotionally and functionally independent from the family (Hoffman & Weiss, 1987). According to Gilligan (1979, 1982), women tend to struggle with the development of instrumentality (as traditionally conceived) and separation during adolescence and early adulthood because they tend to be more relationally oriented, whereas men tend to have more difficulty in developing and maintaining emotional relationships. Research has indicated that men and women differ with respect to how they develop autonomy during adolescence and early adulthood. Women tend to maintain closer relationships with their parents during the transition to adulthood than do men, and they tend to be more strongly affected by their relationships with their parents than men are (Hoffman & Weiss, 1987; Lopez, Campbell, & Watkins, 1986; Rice, 1990). Men, however, tend to view separation from their parents during late adolescence as promoting increased independence (Moore, 1987). Similarly, undergraduate women have been found to be more ambivalent than undergraduate men are about separation from their parents (Mann, 1988).

To date, no study has examined the age-changing relationship between instrumentality and separation in emerging adulthood. Because both theory and research indicate that men and women tend to separate from the family differently during this period, we investigated whether the age-changing relationship between instrumentality and family contact differed as a function of gender. In addition, we examined whether this relationship differed depending on the type or domain of functioning considered. Previous studies have suggested that there may be domain-specific differences in the development of identity (Goossens, 2001), self-concept (Young & Mroczek, 2003), self-esteem (Quatman & Watson, 2001), perceived control (Lachman & Weaver, 1998), and the assumption of mature role responsibilities during the transition to adulthood (Cohen, Kasen, Chen, Hartmark, & Gordon, 2003). As indicated above, development in men may be characterized more by separation and individuality, whereas development in women may be characterized more by connectedness. To maximize the possibility of detecting gender-specific domain effects, we examined the age-changing effect of family contact on the development of instrumentality in two domains traditionally associated with men and women: financial support role and romantic relationships. On the basis of the findings summarized above, we hypothesized the following:

1. Family contact will decrease among both men and women during the transition to adulthood. However, fam-

ily contact will tend to decrease more rapidly among men than it will among women.

2. Finance and romance instrumentality will increase among both men and women during the transition to adulthood, but men, because they are socialized to be more instrumental in general, will show higher levels of instrumentality across both domains.

3. Family contact will negatively impact or suppress the development of both finance and romance instrumentality for men and women, but there will be greater negative impact on the trajectories of women than on the trajectories of men.

Method

Participants and Procedure

For this Transitions Study, 240 young adults ranging in age from 27 to 30 years were selected for narrative interviews from a larger ($N = 800$), general-population, longitudinal cohort study designed to examine risk factors for the development of mental and physical illness (Cohen & Cohen, 1996). The original sample was randomly selected on the basis of residence in one of two upstate New York counties. At the time of original sampling (1975), the families ranged from affluent to living in poverty and resided in urban, suburban, and rural settings. The cohort was 50% female and 91% White (versus 8% Black and 1% other). Approximately 80% of those invited from the larger study participated in this Transitions Study. Like those in the full sample, most of the participants were White (92.5%), were female (52.1%), and represented a broad spectrum of socioeconomic backgrounds. In this study, we measured socioeconomic status (SES) by combining standardized measures of years of maternal and paternal education, maternal and paternal highest occupation status, and family income, which were based on our 1986 maternal interviews when the participants were children still living at home.

Of the 240 participants in the Transitions Study, 200 were selected with a probability that enhanced the statistical power to detect effects of and on personality disorder symptoms. These probabilities increased with departure from the centroid of the scatterplot of total personality disorder symptoms assessed at mean ages 16.5 and 22.4 years. Additional selection factors were being between age 27 and age 30 at the time of narrative interview (1996–1998) and willingness to participate in this lengthy (3–5-hr) interview. An additional 40 participants were randomly selected from the younger members of the larger longitudinal study to participate in a coordinated methodological study on recall bias. Consequently, the Transitions Study had a slightly narrower age range ($SD = 2.46$ years) than the larger study ($SD = 2.86$ years). The data from these 40 participants did not differ from those of the 200 participants described above and are included in the present analyses.

Although we originally selected participants randomly, using a four-corners design to increase the probability of detecting effects of and risk factors for the development of personality disorders, the sample ultimately was comparable on average to the larger population-based cohort. To highlight this fact, all analyses presented in this article were rerun weighting participants back to reflect their prevalence of personality disorder symptoms in the original population-based sample. These weighted analyses did not differ substantively from the unweighted analyses and are not presented.

Narrative Interviews

The narrative interview began by establishing a framework for the period of interest (ages 17–27) through asking participants to complete a "life chart" of the changes that took place over this 10-year period in where they lived, worked, and studied and the dates of important milestones and significant experiences. A large literature in the cognitive investigation of autobiographical memory indicates the importance of contextual cues in the storage and retrieval of memories (e.g., Bradburn, 2000; N. R. Brown, Shevell, & Rips, 1986). The life chart was reviewed with the interviewer to establish a common framework for the subsequent narrative. Six domains—residence, finance, romance, school, career, and parenting—were assessed on a scale ranging from 0 to 100 with regard to the maturity of roles assumed and qualitative aspects of role change in each of the 120 months during the 10-year interval. Changes in psychosocial domains were dated on the basis of the month when they occurred. If there was more than one change within a month, the changes were attributed to consecutive months, retaining the sequence reported by the respondent. Using this procedure, we obtained 120 monthly records from each respondent. Participants were asked to report as many behavioral descriptions as possible (e.g., "Who paid for that?"; "What did you do there?"; "Who signed the lease?"; "How often did you see each other?"; "Who did the shopping?") so as to allow the interviewers to assess level of independence and responsibility assumed within each domain.

To maximize the reliability and validity of these quantitative ratings, the narrative study used several critical design aspects that have been identified in previous research as eliciting accurate recall. First, as indicated above, participants completed a life chart prior to the interview, which provided a context for the narrative. Second, the interview focused on concrete aspects of settings and roles. Participants were asked for concrete descriptions of their varied settings and role-related behaviors. This allowed the participants to reconstruct the context sufficiently in memory to enable further accounts of their behaviors in the setting. Third, during interviewer training, it became clear that cross-referencing between different events and settings was a major assistance to participants in sorting out the sequence of their experiences. Consequently, interviewers cross-referenced between settings to assist participants in more accurately sequencing events. Fourth, interviewers were trained to ask about participant experiences and behaviors rather than participant evaluations of situations.

It has long been recognized that autobiographical narratives necessarily reflect a person's history as seen through the filter of their own motivational and cognitive schema (Neisser & Fivush, 1994). By asking, for instance, what chores participants performed when they lived with their parents, interviewers gathered behavioral evidence about the living situation rather than participants' interpretation of it. This division between the behavioral and the psychological recognizes that there are two aspects that may exist. The first is the extent to which one feels instrumental, and the other is the extent to which one actually is instrumental. In this study, the latter was used as a more objective assessment of instrumentality. Eliciting behavioral evidence allows ratings to be made on the basis of study definitions and coding guidelines. This is the method of investigator-based rating (G. W. Brown & Rutter, 1966). It ensures that the codes relate to the variables as defined in the study (which the participants cannot know), avoids emotion-based evaluations by participants, and assures consistency across all interviews. Although autobiographical descriptions can never free themselves entirely from engaging motives to organize one's past in the service of a coherent self-presentation (Barclay, 1994), the elicitation of information on settings and concrete behaviors rather than on evaluations and motivations enables investigators to maximize the objectivity of an assessment.

Instrumentality

Instrumentality ratings, which ranged from 0 to 100, indicated how much choice and influence the individual exercised in attaining new settings or roles. Interview questions obtained behavioral evidence of instrumentality—such as goal setting, concrete planning, preparation, and choice—in both of the domains assessed (i.e., finance and romance). For

instance, regarding choosing to start college, participants were asked if they actively chose to go to college or if it was just expected of them and they went along. Then they were asked to describe the process by which they decided which colleges to apply to, who took these actions, how much time and effort was involved, and why they chose the college they eventually attended.

An instrumentality rating of 99 indicated that the participant actively pursued and took full responsibility for his or her level of romantic involvement or financial independence. An instrumentality rating of 75 indicated that the participant was basically responsible for his or her level of romantic involvement or financial independence. An instrumentality rating of 50 indicated that the participant played a meaningful role in making decisions and initiating appropriate actions in these domains but that these decisions were also substantially influenced by others. An instrumentality rating of 25 indicated that the participant generally accepted and went along with plans that were determined by others. Ratings below 25 were given to unwilled changes in roles, such as those required by parental withdrawal of financial support despite personal objection or being unwillingly left by a romantic partner.

Although related, the level of financial independence achieved or the level of romantic commitment attained is not synonymous with the degree of instrumentality or responsibility one takes for the decisions one makes in reaching those levels. For example, in the domain of finance, a participant whose parents make him or her work to pay for room and board may be self-supporting (high level of financial achievement), but he or she may not have been responsible for that decision (low level of finance instrumentality). Similarly, in the domain of romance, one may terminate a romantic relationship because it is unsatisfactory (high romance instrumentality), but so doing would, at least temporarily, lower one's level of romantic commitment. In this study, the partial correlation (adjusting for linear and quadratic age trends) between level of financial self-support achieved (financial transition level) and finance instrumentality was .69. The partial correlation (adjusting for linear and quadratic age trends) between level of romantic commitment attained (romantic transition level) and romance instrumentality was .25. The discrepancy between these two partial correlations most likely reflects the fact that it is more common to take the initiative to lower one's romantic transition level—for example, ending a romantic relationship—than it is to personally decide that one's parents will increase their level of financial support, thus lowering financial transition level.

As indicated above, all interviewer-coded interviews were tape-recorded and blindly recoded by another interviewer. The interrater intraclass reliability coefficient for the two sets of finance instrumentality ratings was .75 across all participants and months, and the interrater intraclass reliability coefficient for the two sets of romance instrumentality ratings was .73.

Family Contact

Ratings of contact with the family of origin (i.e., parents or siblings) were obtained for each of the 120 months in the transitional period. As with instrumentality, family contact ratings ranged from 0 to 100. Using a 0–100 scale rather than a Likert-type rating scale permits raters to make more subtle degrees of differentiation, and it also adds interpretive clarity in that changes can be interpreted in terms of percentage-point units. Face-to-face meetings, telephone calls, letters, and electronic mail were all considered evidence of family contact. A rating of 0 indicated contact with a family member no more than twice per year. A rating of 25 indicated that the participant made contact with one or more family members more than twice per year but no more than twice per month. A rating of 50 indicated that the participant made contact with a family member more than twice per month but no more than twice per week. A rating of 75 indicated that the participant made contact with a family member more than twice per week. A rating of 99 indicated that the participant had daily contact with one or more family members. Intermediate ratings were assigned if the level of family contact was between these indicators. The interrater reliability coefficient for the two sets of family contact ratings was .94.

Prospective and Retrospective Agreement

As noted above, narrative reports are subject to a multitude of distorting influences. To determine the validity of the retrospective reporting method used here, Cohen, Kasen, Bifulco, Andrews, & Gordon (in press) analyzed the agreement between prospective and retrospective reports in a sample of 149 participants (including 40 from the current study). These participants were first interviewed at an average age of 22 years, with two subsequent interviews at yearly intervals covering the intervening months. Together, the data from these three interviews constituted the prospective data. Participants were then interviewed a final time and reported retrospectively about the entire time period since their 17th birthday using the narrative method described above. The average test–retest correlations for the means and variances of family contact were .76 ($p < .01$) and .34 ($p < .01$), respectively. The test–retest correlations for the means and variances for average monthly finance instrumentality were .58 ($p < .01$) and .41 ($p < 01$), respectively. The test–retest correlations for the means and variances for average monthly romance instrumentality were .51 ($p < .01$) and .23 ($p < 01$), respectively. These estimates indicate an acceptable level of agreement across the study period between prospective and retrospective reports per person in instrumentality and family contact.

Data Analysis

We used the SAS PROC MIXED program to estimate random and fixed effects of a series of multilevel regression models (Singer, 1998; Singer & Willett, 2003). Growth-curve analyses for family contact proceeded in two steps. First, we estimated *random* differences between participants in the mean level of family contact (value at age 17) and in the linear and quadratic changes with age. We also added autocorrelation to the unconditional model because residuals, as expected, were not independent over adjacent months. Linear and quadratic changes with age for the average individual (*fixed* effects) were also estimated in this unconditional nonlinear growth-curve model. In a second model, we added the fixed effect of gender as well as hypothesized differences in the linear and quadratic changes with age in family contact for men and women (interaction terms).

Growth-curve analyses for the two instrumentality variables (i.e., finance and romance) proceeded in three steps. First, we estimated the unconditional growth-curve model, which estimated random differences between participants in their mean level of finance or romance instrumentality (values at age 17), in the linear and quadratic changes with age, and in autoregression. Linear and quadratic changes with age in instrumentality for the average individual (fixed effects) were also estimated in this model. In a second model, the gender differences model, we estimated the overall fixed effect of gender as well as hypothesized differences in the linear and quadratic age changes in instrumentality for men and women (interaction terms). In a third model, the family contact model, we added the time-varying predictor family contact and included two- and three-way interaction terms involving the linear and quadratic age changes, gender, and family contact. Improvement in fit for all models tested was evaluated using the chi-square test of the difference between the -2 log likelihoods (-2LLs) of successive models with degrees of freedom equal to the difference in the number of parameters in the models.

Results

Table 1 presents the means and standard deviations for family contact and finance and romance instrumentality for men and women for ages 17, 22, and 27 years. As can be seen from this table, the average frequency of family contact decreased over the emerging adulthood period from daily contact at age 17 (96.98) to

Table 1
Descriptive Statistics for Family Contact, Finance Instrumentality, and Romance Instrumentality Across Emerging Adulthood for Men, Women, and the Total Sample (N = 240)

Time-varying measure	Age 17 years	Age 22 years	Age 27 years
Family contact			
Men	97.07 (8.46)	79.03 (22.02)	69.78 (22.93)
Women	96.91 (7.58)	82.03 (20.29)	81.58 (17.68)
Total	96.98 (7.99)	80.60 (21.15)	76.04 (21.10)
Finance instrumentality			
Men	39.36 (12.04)	54.36 (15.24)	62.44 (15.91)
Women	34.52 (10.81)	53.25 (14.08)	60.34 (14.80)
Total	36.83 (11.64)	53.78 (14.63)	61.32 (15.32)
Romance instrumentality			
Men	47.87 (13.70)	50.75 (13.31)	55.03 (13.38)
Women	45.07 (13.12)	51.60 (12.82)	54.11 (12.20)
Total	46.40 (13.45)	51.20 (13.04)	54.54 (12.74)

Note. Values are means (on a 0–100 scale), with standard deviations given in parentheses.

Table 2
Fixed- and Random-Effect Estimates for Growth-Curve Models of Family Contact

Variable	Model: Unconditional nonlinear growth curve	Model: Gender differences
Fixed-effect estimates		
Intercept (age 17)	95.26 (0.77)**	94.76 (1.07)**
Age	−4.53 (0.49)**	−4.01 (0.51)**
Age^2	0.28 (0.05)**	0.28 (0.05)**
Gender	—	1.043 (1.530)
Age × Gender	—	−1.08 (0.32)**
Random-effect estimates		
Intercept	139.91 (13.50)**	139.80 (13.49)**
Slope	55.09 (5.20)**	55.26 (5.22)**
Intercept × Slope	−29.60 (6.29)**	−29.62 (6.31)**
Slope^2	0.570 (0.054)**	0.570 (0.054)**
Intercept × Slope^2	1.87 (0.62)**	1.89 (0.62)**
Slope × Slope^2	−5.27 (0.51)**	−5.29 (0.52)**
Residual	104.06 (0.89)**	104.06 (0.89)**
−2 log likelihood	212,176.9	212,164.9

Note. All models use full maximum-likelihood estimation. Values in parentheses are standard errors. Dashes indicate variables not included in the model. Female = 0; male = 1.
** $p < .01$.

contact about twice a week (76.04) at age 27, with corresponding increases in individual variation. Instrumentality, on average, increased over the emerging adulthood period. Both domains hovered around an instrumentality rating of approximately 50, with fairly large dispersion (approximately 12 or 13 points). This level of instrumentality indicates that participants played a meaningful role in making decisions but that many of their decisions continued to be substantially influenced by others, including parents, across the study period.

Change in Family Contact Among Men and Women Across Emerging Adulthood

Our first objective was to examine the trajectory of family contact over emerging adulthood for men and women. The fixed- and random-effect estimates for the two models evaluated are presented in Table 2. The average level of family contact for the 17-year-olds' estimates from the average growth curve was approximately 95 (similar to the actual average shown in Table 1). As this model also indicates, family contact declined significantly and nonlinearly, with greater decreases during the immediate post-high-school years than in the later emerging adulthood period.

To explore the hypothesis that family contact decreases more rapidly among men than among women over emerging adulthood, we estimated a second model that added the overall fixed effect of gender and interaction terms to model the hypothesized gender differences in age changes in family contact. This model significantly improved model fit ($\Delta -2LL = 12$), $\chi^2(2, N = 240) = 9.21$, $p < .01$. The linear slope for men decreased more steeply ($B = [-4.01 + -1.08] = -5.09$, $p < .01$) than the linear slope for women ($B = -4.01$, $p < .01$). The quadratic effect was similar for men and women.

We examined the impact of gender differences in SES on both the level and slope of family contact by including SES and the SES × Age and SES × Age × Gender interaction terms in the final model. These terms were nonsignificant and are not included in the final family contact model depicted in Figure 1. As can be seen in this figure, family contact decreased in a curvilinear manner throughout the emerging adulthood period, with men separating more quickly than women and maintaining less contact with their families overall at age 27.

The Development of Finance Instrumentality During Emerging Adulthood

Our second objective was to examine the development of finance instrumentality. First, we examine the unconditional growth-curve model, which determines the overall shape of the finance instrumentality trajectory. Next, we consider gender differences in the development of finance instrumentality. Third, we explore the age-changing role of family contact on these gender-specific trajectories.

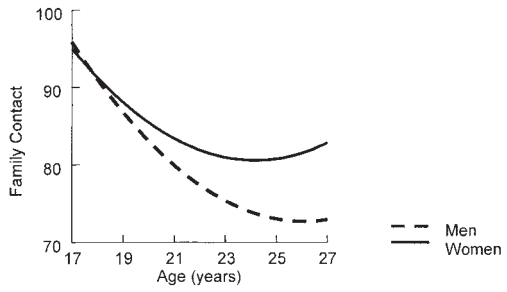

Figure 1. Change in family contact (as rated on a 0–100 scale) over emerging adulthood for men and women.

Unconditional growth-curve model. The unconditional nonlinear growth-curve model for financial instrumentality, which includes fixed linear and quadratic age changes and all significant random components, is reported in Table 3. This model indicates that the average level of finance instrumentality at age 17 was approximately 37, reflecting the tendency for most 17-year-olds to have their financial support determined largely by others. This model further indicates that the overall trajectory of finance instrumentality was curvilinear, with greater increases in early emerging adulthood as opposed to later emerging adulthood, when gains in financial instrumentality began to level off.

Gender differences. To evaluate gender differences in the linear and quadratic changes with age in finance instrumentality, we added the overall fixed effect of gender and hypothesized differences in the linear and quadratic age changes (interaction terms) to the unconditional nonlinear growth-curve model. As reported in Table 3, only the overall main effect of gender significantly improved model fit ($\Delta-2LL = 9.1$), $\chi^2(1, N = 240) \geq 6.64$, $p < .01$, indicating that men on average at age 17 scored approximately 3 points higher than women on finance instrumentality.

The age-changing role of family contact. To test the main and potentially age-changing effect of family contact on the development of finance instrumentality across emerging adulthood, we added the time-varying predictor family contact to the model as well as all two- and three-way interaction terms of family contact with gender and the linear and quadratic age changes in instrumentality (higher order interactions involving the quadratic slope were nonsignificant and were removed from the final model). We also included SES and the SES × Age and SES × Age × Gender interaction terms in this model to examine the potential impact of gender differences in SES on both the level and slope of finance instrumentality. The main effect of SES ($B = -1.39$, $p < .054$) and the two-way Age × SES interaction ($B = 0.41$, $p < .0008$) were significantly different from zero and were retained in the final model (the three-way interaction was nonsignificant and was removed). Participants with higher SES started lower but increased more rapidly in finance instrumentality than their low-SES counterparts. The final family contact model, which adjusts for these significant SES differences in level and slope, is reported in Table 3 and depicted in Figure 2. This final model significantly improved fit over and above the gender differences model ($\Delta-2LL = 582.4$), $\chi^2(7, N = 240) \geq 24.32$, $p < .001$.

The overall trajectory for both men and women was curvilinear, with greater increases in the early portion of emerging adulthood and a subsequent leveling off. At age 17, men scored higher than women by about 3 points ($p < .05$). Family contact influenced change in finance instrumentality over emerging adulthood differently for men and women. For both women ($B = -0.19$, $p < .001$) and men ($B = [-0.19 + 0.065] = -0.12$, $p < .001$), family contact at age 17 was negatively associated with finance instrumentality. The negative impact of family contact on finance instrumentality, however, decreased with age. For women at age 27,

Table 3
Fixed- and Random-Effect Estimates for Growth-Curve Models of Finance Instrumentality

Variable	Model		
	Unconditional nonlinear growth curve	Gender differences	Family contact[a]
Fixed-effect estimates			
Intercept (age 17)	37.02 (0.74)**	35.48 (0.89)**	37.69 (1.01)**
Age	4.41 (0.33)**	4.40 (0.33)**	3.65 (0.35)**
Age^2	−0.200 (0.032)**	−0.200 (0.032)**	−0.140 (0.032)**
Gender	—	3.230 (1.057)**	2.93 (1.42)*
Family Contact	—	—	−0.190 (0.014)**
Age × Gender	—	—	−0.01 (0.24)
Age × Family Contact	—	—	0.007 (0.003)*
Gender × Family Contact	—	—	0.065 (0.018)**
Age × Gender × Family Contact	—	—	0.0097 (0.004)**
Random-effect estimates			
Intercept	27.01 (14.64)*	23.14 (14.38)	24.26 (14.57)*
Slope	3.71 (2.81)	3.69 (2.81)	3.89 (2.82)
Intercept × Slope	6.12 (4.87)	6.88 (4.81)	5.80 (4.91)
Slope^2	0.033 (0.026)	0.033 (0.026)	0.031 (0.026)
Intercept × Slope^2	−0.99 (0.41)**	−1.063 (0.410)**	−0.92 (0.41)*
Slope × Slope^2	−0.27 (0.26)*	−0.27 (0.26)	−0.28 (0.26)
Autoregression	0.920 (0.004)**	0.920 (0.004)**	0.920 (0.004)**
Residual	128.86 (7.02)**	128.90 (7.03)**	128.22 (7.11)**
−2 log likelihood	162,780.6	162,771.5	162,189.1

Note. All models use full maximum-likelihood estimation. Values in parentheses are standard errors. Dashes indicate variables not included in a model. Family contact was a time-varying covariate. Female = 0; male = 1.

[a] Adjusted for socioeconomic status (SES) and SES × Age.

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

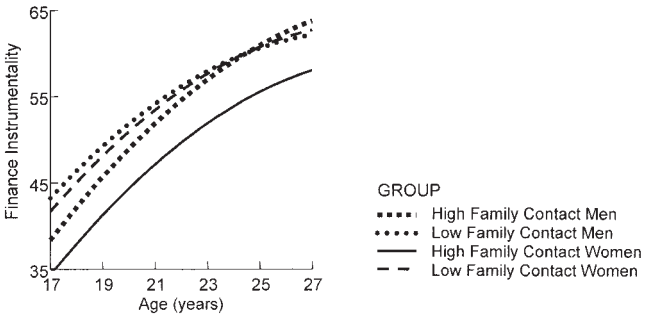

Figure 2. Age-changing impact of family contact on the development of finance instrumentality (as rated on a 0–100 scale) over emerging adulthood for men and women.

each unit of family contact was related to −0.012 units of financial instrumentality (B = [−0.19 + {10 years × 0.007}] = −0.012), but for men at age 27, each unit of family contact was related to +0.042 units of financial instrumentality (B = [−0.19 + 0.065 + {10 years × (0.0097 + 0.007)}] = 0.042). Thus, although in the early segment of this period, high family contact was related to lower instrumentality, by the time participants were in their late 20s, this effect was less strong for women and actually reversed for men. Men with higher family contact at age 27 showed higher levels of finance instrumentality than did men with less family contact.

The Development of Romance Instrumentality During Emerging Adulthood

Our third objective was to examine the development of romance instrumentality. First, we examine the unconditional growth-curve model, which determines the overall shape of the romance instrumentality trajectory. Next, we consider gender differences in the development of romance instrumentality. Third, we explore the age-changing role of family contact on these gender-specific trajectories.

Unconditional growth-curve model. In contrast to finance instrumentality, quadratic age change in romance instrumentality was nonsignificant and, therefore, was removed from the final unconditional growth-curve model. This linear unconditional growth-curve model, reported in Table 4, indicates that the average level of romance instrumentality at age 17 was approximately 48, reflecting a balanced combination of own initiative and the influence of others. This model also indicates that the average individual increases in romance instrumentality at a rate of about 0.7 points per year (B = 0.68), so that by age 27, the average individual would score approximately 7 points higher (0.68 × 10 years = 6.8) in romance instrumentality.

Gender differences. To evaluate gender differences in the linear age changes in romance instrumentality, we added the overall fixed effect of gender and hypothesized differences in the linear age change (interaction term) to the unconditional linear growth-curve model. As can be seen in Table 3, including gender (and the Age × Gender interaction) did not significantly improve model fit.

Table 4
Fixed- and Random-Effect Estimates for Growth-Curve Models of Romance Instrumentality

Variable	Model		
	Unconditional linear growth curve	Gender differences	Family contact
Fixed-effect estimates			
Intercept (age 17)	47.58 (0.74)**	47.07 (0.91)**	47.030 (1.033)**
Age	0.68 (0.10)**	0.68 (0.10)**	0.73 (0.14)**
Gender	—	1.05 (1.11)	1.51 (1.49)
Age × Gender	—	—	−0.014 (0.210)
Family Contact	—	—	−0.054 (0.015)**
Age × Family Contact	—	—	0.0050 (0.0032)
Gender × Family Contact	—	—	0.013 (0.020)
Age × Gender × Family Contact	—	—	0.013 (0.004)**
Random-effect estimates			
Intercept	132.11 (15.56)**	130.88 (15.48)**	129.58 (15.37)**
Slope	12.24 (1.90)**	12.23 (1.90)**	12.10 (1.90)**
Intercept × Slope	−23.49 (4.56)**	−23.27 (4.55)**	−22.57 (4.51)**
Slope^2	0.089 (0.016)**	0.089 (0.016)**	0.088 (0.016)**
Intercept × Slope^2	1.32 (0.38)**	1.30 (0.38)**	1.26 (0.38)**
Slope × Slope^2	−0.96 (0.17)**	−0.96 (0.17)**	−0.95 (0.17)**
Autoregression	0.810 (0.004)**	0.810 (0.004)**	0.810 (0.004)**
Residual	72.65 (1.74)**	72.65 (1.74)**	72.76 (1.75)**
−2 log likelihood	170,304.3	170,303.4	170,203.6

Note. All models use full maximum-likelihood estimation. Values in parentheses are standard errors. Dashes indicate variables not included in a model. Family contact was a time-varying covariate. Female = 0; male = 1.
** $p < .01$.

Nevertheless, for symmetry with the finance instrumentality findings, we report the main effect gender differences model in Table 4 (omitting the Age × Gender interaction term). According to this model, both men and women increased in romance instrumentality at a similar rate over emerging adulthood, with men scoring slightly, although nonsignificantly, higher than women at age 17. Because it is likely that behavioral initiatives and decisions about romantic commitments are fairly symmetrical between partners, such similarity seems consistent with expectation, although initiation of romantic relationships prior to this stage may be more traditionally a male role.

The age-changing role of family contact. Although the overall main effect of gender was not significant in the gender differences model, a synergistic effect occurred when the time-varying predictor family contact—as well as higher order two- and three-way interactions among family contact, gender, and the linear age change—was added to the model. As can be seen in Table 4, the family contact model significantly improved model fit over and above the previous gender differences model ($\Delta -2LL = 99.8$), $\chi^2(5, N = 240) \geq 26.13$, $p < .001$.

We examined the potential impact of gender differences in SES on both the level and slope of romance instrumentality by including SES and the SES × Age and SES × Age × Gender interaction terms in this final family contact model. These terms were nonsignificant and are not included in the final family contact model for romance instrumentality depicted in Figure 3. As can be seen in this figure, family contact influenced the development of romance instrumentality over emerging adulthood in different ways for men and women. Family contact at age 17 was negatively associated with romance instrumentality in a similar manner for men and women. The negative impact of family contact on romance instrumentality, however, decreased with age in a way that depended on gender. In particular, for women at age 27, each unit of family contact was related to −0.0027 units of romance instrumentality (B = [−0.054 + {10 years × 0.005}] = −0.0027), but for men at age 27, each unit of family contact was related to +0.139 units of romance instrumentality (B = [−0.054 + 0.013 + {10 years × (0.013 + 0.005)}] = 0.139). Thus, although in the early segment of this developmental period, high family contact was related to lower romance instrumentality, by the time participants were in their late 20s, this effect was less strong for women and actually reversed for men. Men with higher family contact at age 27 showed higher levels of romance instrumentality than did men with less family contact.

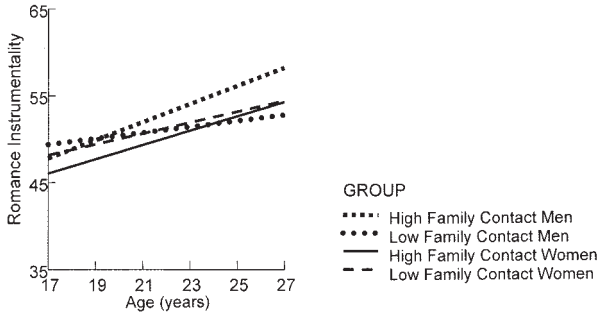

Figure 3. Age-changing impact of family contact on the development of romance instrumentality (as rated on a 0–100 scale) over emerging adulthood for men and women.

Discussion

This study contributes in several ways to an increased understanding of gender differences in the association between the development of instrumentality and the age-changing impact of family contact during the transition to adulthood. First, family contact decreased among both men and women across emerging adulthood. As expected, family contact tended to decrease more rapidly in men than it did in women. Second, both finance and romance instrumentality increased for men and women across emerging adulthood. The growth rate did not differ between men and women in either domain, although men tended to be characterized by higher levels of instrumentality than women in both domains. Third, the age-changing relationship between instrumentality (in both domains) and family contact was negative for both men and women, but the negative association decreased with age in gender-specific ways. At age 17, family contact was negatively associated with instrumentality across both domains for both men and women. At age 27, the association of family contact with instrumentality was less negative for women and actually positive for men.

Decreasing Family Contact and Increasing Instrumentality During the Transition to Adulthood

The present findings indicate that family contact tends to decline and that instrumentality tends to increase during the transition to adulthood. This pattern of findings is consistent with the hypothesis that the process of separation and individuation continues in emerging adulthood during a third individuation phase (Colarusso, 1990). This general pattern is supported by the fact that when we averaged across domains, there was a significant overall negative association between family contact and overall instrumentality ($r = -.24$, $p < .001$).

The initial effect of family contact on instrumentality was domain dependent. The negative impact of family contact on financial instrumentality for men (B = [−0.19 + 0.065] = −0.12) and women (B = −0.19) at age 17 was stronger than the negative impact of family contact on romance instrumentality for men (B = [−0.054 + 0.013] = −0.041) and women (B = −0.054) at age 17. Intuitively, these findings make sense, because decisions made in the domain of romance are largely made between the members of a couple and are perhaps only indirectly influenced by family, but decisions regarding financial self-sufficiency may be much more strongly tied to family of origin and, in particular, parental financial support. This pattern of findings is consistent with a growing literature suggesting that there may be domain-specific differences in psychosocial development during the transition to adulthood (Cohen et al., 2003; Goossens, 2001; Lachman & Weaver, 1998; Quatman & Watson, 2001; Young & Mroczek, 2003).

Gender Differences in Family Contact and Instrumentality

The present findings are consistent with the hypothesis that there are noteworthy gender differences in the development of two

separate but related dimensions of autonomy in emerging adulthood (i.e., separateness and instrumentality). Women maintained significantly more contact with family members than did men. For example, at age 27, the women in this study tended to be in contact with family members two or three times per week on average, whereas the men tended to have contact with family members slightly less than twice per week. These findings are consistent with previous findings indicating that compared with men, women tend to maintain closer relationships with their parents during the transition to adulthood, to be more strongly affected by their relationships with their parents, and to be more ambivalent about separation from their parents (Hoffman & Weiss, 1987; Lopez et al., 1986; Mann, 1988; Rice, 1990).

Not surprisingly, men tended to have higher instrumentality ratings than women throughout emerging adulthood, but this difference did not reach statistical significance in the domain of romance. Although these findings are consistent with the hypothesis that men tend to be more "agentic" and that women tend to be more "communal" (Abele, 2003; Bakan, 1966; Bem, 1974; Deaux & LaFrance, 1998; Ruble & Martin, 1998), they also suggest that because women are more relationally oriented than men (e.g., Gilligan, 1979, 1982), they tend to be somewhat more instrumental in making decisions about their interpersonal lives.

Family Contact as a Domain-Specific Moderator of the Gender–Instrumentality Association

The present findings suggest that gender differences in the development of instrumentality may vary as a function of the domain of functioning under consideration as well as the frequency of family contact during emerging adulthood. For women, particularly in the domain of finance, the negative influence of family contact on the development of instrumentality was striking. These findings are consistent with social role theory (Eagly, 1987). Parents and society at large socialize children in gender-specific ways, which in turn facilitate the development of particular traits (e.g., instrumentality and communality) that predict success in these gender-specific social roles. For example, parents are more likely to assign child-care responsibilities to girls, which allows them less freedom and independence, whereas boys are assigned tasks that take them out of the home, allowing for greater freedom and independence (Cross & Madson, 1997). As a result, it does not come as a surprise that the influence of family contact, particularly in the domain of finance (a traditionally male domain), was particularly suppressive. In this regard, it is instructive that the growth curves of the women who had less frequent contact with family members at age 17 were virtually indistinguishable from the growth curves of the men in the finance instrumentality domain (see Figure 2).

For men, family contact ultimately facilitated the development of instrumentality in both domains; that is, although the age-changing effect of family contact on instrumentality was negative for men across both domains at age 17, by age 27, the impact of family contact across both domains was actually positive. Although these findings seem initially paradoxical, they are consistent with research on gender differences in identity exploration in adolescence (Cooper & Grotevant, 1987). Stressing the interdependence of individuality and connectedness in their theory of individuation, Cooper and Grotevant (1987) found that young women who displayed higher levels of identity exploration also demonstrated more separateness in their family interactions. In contrast, young men scoring high in identity exploration displayed more connectedness in their family interactions. According to Cooper and Grotevant, the greater importance of separateness for young women and connectedness for young men may serve to counter or overcome the limitations imposed by traditional gender roles.

Theoretical Implications

The findings from this study raise a number of interesting theoretical questions. First, family contact for women negatively impacted the development of instrumentality across both domains throughout emerging adulthood. Although failure to develop instrumentality to the same degree and at the same rate as men tends to be viewed as a problem that lies within the individual woman, an alternative view is that the problem lies outside the woman in a society that overemphasizes autonomy. As Gilligan (1982) has pointed out,

> The disparity between women's experience and the representation of human development, noted throughout the psychological literature, has generally been seen to signify a problem in women's development. Instead, the failure of women to fit existing models of human growth may point to a problem in the representation, a limitation in the conception of human condition, an omission of certain truths about life. (pp. 1–2)

The gender differences in development observed in this study raise a fundamental question about the nature of instrumentality: What does it mean to be instrumental in the domain of romance? Instrumentality has been traditionally associated with masculine traits such as independence, agency, and decision-making ability. Although this may be one way of defining instrumentality, working from within this perspective, one struggles to define instrumentality in the domain of romance. One possibility is that there are two equally valid ways of defining *instrumentality* within this domain. From a traditionally masculine perspective, instrumentality might be characterized by independence. However, from a traditionally feminine perspective, instrumentality might be characterized by relational responsibility, commitment, and interpersonal sensitivity—in the form, for instance, of interdependent self-assertion (Cross & Madson, 1997). For example, a faculty advisor during a doctoral dissertation defense might willingly decide to suppress the desire to assert his or her own agenda relative to the other committee members so as to make sure that the needs and wishes of his or her student are heard. This alternative perspective, however, seems to be sorely lacking from the way instrumentality is operationalized in psychological research.

Limitations

The limitations of the present study are balanced by its unique methodological strengths. The primary limitation of the present study is that the data are retrospective. However, a systematic, detailed, and comprehensive narrative interview procedure was used, and acceptable levels of agreement have been obtained using this procedure in comparison with corresponding prospective reports (Cohen et al., in press). Consequently, the present findings

are unlikely to have been unduly affected by recall bias. It is also important to note the possibility that findings regarding the age-changing relationship between instrumentality and family contact may have been influenced in a systematic way by the use of data from a single informant. It is possible that different family members had somewhat different perceptions of family contact and instrumentality. This would have been a matter of more concern if instrumentality had been assessed with a self-report questionnaire, on which participants could, for example, overestimate the extent to which they were instrumental. However, a detailed and highly structured interview was conducted, and instrumentality was assessed on the basis of actual developmental events and behaviors rather than the participant's evaluation of his or her perceived level of family contact or degree of instrumentality. A related issue concerns the actual availability of family members with whom a participant could have contact. Unfortunately, such data were not gathered in this study. Although family member availability is imbedded in the notion of family contact, it would be useful to directly measure it in future research.

This is the first study to document gender differences in the age-changing impact of family contact on the development of instrumentality across multiple domains. It is hoped that future studies, conducted to replicate and extend the present investigation, will examine whether the findings obtained in this study are consistent with research that asks participants to evaluate their level of family contact (separateness) and degree of instrumentality (agency) using self-report measures as opposed to having data based on behavioral evidence obtained in a structured interview. Future research might also examine whether the present study findings are replicated when multiple informants (e.g., parents and significant others) are used. These additions would contribute significantly to our understanding of the age-changing relationship between family contact and instrumentality throughout the transition to adulthood.

References

Abele, A. E. (2003). The dynamics of masculine-agentic and feminine-communal traits: Findings from a prospective study. *Journal of Personality and Social Psychology, 85,* 768–776.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55,* 469–480.

Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion.* Chicago: Rand McNally.

Barclay, C. R. (1994). Composing protoselves through improvisation. In U. Neisser & R. Fivush (Eds.), *The remembering self: Construction and accuracy in the self-narrative* (pp. 55–77). Cambridge, England: Cambridge University Press.

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42,* 155–162.

Boles, S. A. (1999). A model of parental representations, second individuation, and psychological adjustment in late adolescence. *Journal of Clinical Psychology, 55,* 497–512.

Bradburn, N. M. (2000). Temporal representation and event dating. In A. A. Stone et al. (Eds.), *The science of self-report: Implications for research and practice* (pp. 49–61). Mahwah, NJ: Erlbaum.

Brown, G. W., & Rutter, M. (1966). The measurement of family activities and relationships: A methodological study. *Human Relations, 19,* 241–263.

Brown, N. R., Shevell, S. K., & Rips, L. J. (1986). Public memories and their personal context. In D. C. Rubin (Ed.), *Autobiographical memory* (pp. 137–158). Cambridge, England: Cambridge University Press.

Chodorow, N. (1978). *The reproduction of mothering: Psychoanalysis and the sociology of gender.* Berkeley: University of California Press.

Cohen, P., & Cohen, J. (1996). *Life values and adolescent mental health.* Mahwah, NJ: Erlbaum.

Cohen, P., Kasen, S., Bifulco, A., Andrews, H., & Gordon, G. (in press). The accuracy of retrospective narrative reports of developmental trajectories. *International Journal of Behavior Development.*

Cohen, P., Kasen, S., Chen, H., Hartmark, C., & Gordon, K. (2003). Variations in patterns of developmental transitions in the emerging adulthood period. *Developmental Psychology, 39,* 657–669.

Colarusso, C. A. (1990). The third individuation: The effect of biological parenthood on separation–individuation processes in adulthood. *Psychoanalytic Study of the Child, 45,* 179–194.

Cooper, C. R., & Grotevant, H. D. (1987). Gender issues in the interface of family experience and adolescents' friendship and dating identity. *Journal of Youth and Adolescence, 16,* 247–264.

Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin, 122,* 5–37.

Deaux, K., & LaFrance, M. (1998). Gender. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 788–827). New York: McGraw-Hill.

Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation.* Hillsdale, NJ: Erlbaum.

Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: Norton.

Gilligan, C. (1979). Woman's place in man's life cycle. *Harvard Educational Review, 49,* 431–446.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development.* Cambridge, MA: Harvard University Press.

Goossens, L. (2001). Global versus domain-specific statuses in identity research: A comparison of two self-report measures. *Journal of Adolescence, 24,* 681–699.

Hoffman, J., & Weiss, B. (1987). Family dynamics and presenting problems in college students. *Journal of Counseling Psychology, 34,* 157–163.

Johnson, J. G. (1993). Associations between family relationships and psychiatric symptomatology in undergraduate students: An investigation of gender differences. *Journal of College Student Psychotherapy, 7,* 79–95.

Kagitçibasi, Ç. (1996). The autonomous-relational self: A new synthesis. *European Psychologist, 1,* 180–186.

Kenny, M. E., & Donaldson, G. A. (1991). Contributions of parental attachment and family structure to the social and psychological functioning of first-year college students. *Journal of Counseling Psychology, 38,* 479–486.

Lachman, M. E., & Weaver, S. L. (1998). Sociodemographic variations in the sense of control by domain: Findings from the MacArthur studies of midlife. *Psychology and Aging, 13,* 553–562.

Lopez, F. G., Campbell, V. L., & Watkins, C. E. (1986). Depression, psychological separation, and college adjustment: An investigation of sex differences. *Journal of Counseling Psychology, 33,* 52–56.

Lopez, F. G., Campbell, V. L., & Watkins, C. E. (1988). Family structure, psychological separation, and college adjustment: A canonical analysis and cross-validation. *Journal of Counseling Psychology, 35,* 402–409.

Mahler, M., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant: Symbiosis and individuation.* New York: Basic Books.

Mann, C. H. (1988). Male and female in a changing analytic world. *Contemporary Psychoanalysis, 24,* 676–683.

Moore, D. (1987). Parent–adolescent separation: The construction of adulthood by late adolescents. *Developmental Psychology, 23,* 298–307.

Neisser, U., & Fivush, R. (Eds.). (1994). *The remembering self: Construction and accuracy in the self-narrative.* Cambridge, England: Cambridge University Press.

Palladino, D. E., & Blustein, D. L. (1991, August). *Contributions of family relationship factors to the identity formation process.* Paper presented at the annual convention of the American Psychological Association, San Francisco, CA.

Quatman, T., & Watson, C. M. (2001). Gender differences in adolescent self-esteem: An exploration of domains. *Journal of Genetic Psychology, 162,* 93–117.

Rice, K. G. (1990). Attachment in adolescence: A narrative and meta-analytic review. *Journal of Youth and Adolescence, 19,* 511–538.

Ruble, D. N., & Martin, C. L. (1998). Gender development. In W. Dammon (Ed.), *Handbook of child psychology, Vol. 3: Social, emotional, and personality development* (5th ed., pp. 933–1016). New York: Wiley.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55,* 68–78.

Singer, J. D. (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models. *Journal of Educational and Behavioral Statistics, 24,* 323–355.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence.* New York: Oxford University Press.

Young, J. F., & Mroczek, D. K. (2003). Predicting intraindividual self-concept trajectories during adolescence. *Journal of Adolescence, 26,* 589–603.

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