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Pers Soc Psychol Bull 2006 32: 1482
DOI: 10.1177/0146167206291008

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The Effect of Age and Role Information on Expectations for Big Five Personality Traits

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In four studies, the authors investigated the extent to which expectations for personality traits in age-graded roles correspond to patterns of personality trait change across the life course. In Studies 1 (N = 43) and 2 (N = 126), the authors examined the age-graded roles of high school student, college student, parent, and grandparent and found that expectations for how people behave in these age-graded roles showed strong parallels to the documented pattern of personality trait development and that this pattern of expectations was largely shared by younger and older participants. In Studies 3 (N = 252) and 4 (N = 123), the authors separated age and role information (e.g., marital, parental, and employment status) and found that people use both sources of information independently in forming expectations of others. The implications for understanding the interplay of expectations and personality trait development are discussed.

Keywords: *age expectations; role expectations; roles; personality development*

A number of studies have now converged on the conclusion that personality traits show mean-level changes across the life course. Organized around the Big Five taxonomy of traits, people appear to become more agreeable, conscientious, and emotionally stable with age. These normative changes in personality have been observed in cross-sectional studies across multiple cultures (McCrae et al., 2000; Srivastava, John, Gosling, & Potter, 2003) using longitudinal designs (Roberts, Walton, & Viechtbauer, 2006) and with both self-report and peer reports (McCrae et al., 2004). Extraversion shows clear developmental patterns when split into its constituent elements of social vitality (sociability) and social dominance, with people decreasing on social vitality and increasing on social dominance (Helson & Kwan, 2000; Roberts et al., 2006). Openness to experience (or intellect in Goldberg's [1993] system) shows

the most complex pattern of change because it tends to increase in adolescence and then decrease slightly in late adulthood (Roberts et al., 2006; Srivastava et al., 2003). The normative pattern of personality development indicates that people become more functionally mature with age, whereas people appear to decrease slightly on traits related to typical activity and energy levels and appear to become more self-controlled, able to deal with stress, and more pleasant in social interactions (Allport, 1961; Hogan & Roberts, 2004).

The clear question that emerges from this pattern of mean-level change across the life course is why people change in this manner. One idea is that universal tasks of social living, such as starting a family and establishing one's career, prompt much of the personality development that is observed in adulthood (Roberts, Wood, & Smith, 2005). Evidence for the place of role experiences in shaping adult personality is steadily building. For example, there is increasing evidence that social investment in work and marriage is associated with the development of traits related to conscientiousness. In the transition from young adulthood to midlife, occupational attainment was associated with increases in responsibility and self-control (Roberts, 1997). In another study, psychological involvement in work was found to be associated with increases in facets of conscientiousness from age 18 to 26 (Roberts, Caspi, & Moffitt, 2003). Similarly, involvement in a close intimate

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PSPB, Vol. 32 No. 11, November 2006 1482-1496

DOI: 10.1177/0146167206291008

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relationship in young adulthood has been found to be related to the development of traits related to conscientiousness and agreeableness (Neyer & Asendorpf, 2001; Robins, Caspi, & Moffitt, 2002). These longitudinal studies show that investment in social roles is associated with personality development in young and middle adulthood.

Although evidence for the effects of social experiences on personality development is building, the mechanisms responsible for translating these experiences to personality change are relatively unexplored. One mechanism that may play a major part in personality development is the act of psychologically committing oneself to roles outside of one's existing identity, or what we term social investment (Roberts & Wood, *in press*; Roberts et al., 2005). By exposing individuals to the contingencies of relationships and roles, social investment may help to cause the consistent pattern of increases in traits such as agreeableness, conscientiousness, and emotional stability observed in adulthood. This idea is similar to the view of symbolic interactionists such as Mead (1934), who suggested that "a person is a personality because he belongs to a community, because he takes over the institutions of that community into his own conduct" (p. 162).

The contingencies of social investment come largely in the form of role expectations or norms for behavior that direct a person's behavioral tendencies (Hagestad & Neugarten, 1985; Sarbin, 1964). For example, people will come to their first job with a set of expectations for how they should act that are derived from watching others in the same types of roles (Caspi & Roberts, 1999). This picture may take the form of a psychological profile that can be described in trait terms. For instance, early role researchers found that people collectively expected that a manager should act industrious, serious, fair-minded, and tactful (Sarbin & Jones, 1955). These trait expectations may be widely shared, and various people may have an interest in an individual's enactment of these expectations. For example, an individual in the role of manager may be expected by superiors to behave in a disciplined manner to meet company goals, and the individual's family may reinforce these expectations because the maintenance of the job is needed for the family's financial well-being. Role-appropriate behavior may thus be encouraged from a number of different groups that the individual encounters in their daily interactions and be associated with tangible consequences.

Although research has supported the importance of expectations or norms in directing relatively narrow behaviors (Ajzen, 2001; Cialdini & Trost, 1998), the social investment principle of personality development (Roberts et al., 2005) suggests that expectations associated with age and with age-graded roles (e.g., employee, parent, spouse) also help to direct the development of

personality traits. Finding that expectations parallel the development of Big Five personality traits would be helpful in making the case that trait development is influenced by normative social mechanisms. In the present study, we thus explore whether individuals expect people to be more agreeable, conscientious, and emotionally stable at older ages than at younger ages and expect older people to be less extraverted and open to experience (Roberts et al., 2006).

We also attempt to separate general age expectations from expectations associated with age-graded roles. In the current studies, we asked participants not to rate expectations associated with age (e.g., "How do you expect a 20-year-old to behave?") but expectations associated with age-graded roles (e.g., "How do you expect a typical parent to behave?"). Individuals may expect more mature behavior among people in adult roles such as employment and parenthood than simply due to a person's age because adult roles have clearer tasks associated with them (e.g., fulfilling job demands, raising children). More precisely, we hypothesize that people in adult roles such as being married, employed, and a parent are expected to have personality traits associated with mature behavior (e.g., expected to act agreeable, conscientious, emotionally stable; Hogan & Roberts, 2004). By distinguishing between age and age-graded roles, we can explore whether the new expectations that people encounter in adulthood are mostly a consequence of entering adult roles or whether age itself is associated with expectations beyond these roles. Consistent with life span developmental theories, age may itself be considered a role if an individual encounters different behavioral expectations simply as a result of their age (e.g., Hagestad & Neugarten, 1985), an idea exemplified by the familiar admonishment to "act your age."

In four studies, we tested whether personality trait expectations in different age-graded roles correspond to the mean-level findings in trait development (e.g., Roberts et al., 2005; Srivastava et al., 2003). In Study 1, individuals were asked to report their personality trait expectations for typical teenagers, college students, young parents, and grandparents to determine the extent to which expectations parallel the mean-level changes in personality traits demonstrated in cross-sectional and longitudinal studies. In Study 2, we also examined the extent to which expectations for personality are shared across different age groups. In Studies 3 and 4, we attempted to disentangle the effects of age and age-graded roles to explore how roles are associated with trait expectations independent of expectations associated with age and, conversely, whether the differences across age groups in trait expectations found in the previous two studies remain when roles and age are experimentally unconfounded.

TABLE 1: Mean Personality Trait Expectations for Different Targets

Target	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect
High school student	3.85 ^a (.44)	3.20 (.58)	2.52 (.54)	2.02 (.42)	3.89 ^a (.43)
College student	3.86 ^a (.39)	3.71 (.44)	3.38 (.63)	2.33 (.40)	4.11 (.41)
Parent	3.54 (.40)	4.00 (.55)	4.34 (.40)	2.61 (.40)	3.76 ^a (.49)
Grandparent	2.98 (.50)	4.22 (.57)	4.04 (.53)	3.06 (.52)	3.42 (.62)
<i>F</i> (1, 42) ^a	54.41	43.59	122.56	50.45	25.02
η^2	0.43 (.56)	0.35 (.51)	0.64 (.75)	0.43 (.55)	0.22 (.37)

NOTE: $N = 43$. Standard deviations of the ratings within each target group are shown in parentheses. Means in the same column with shared subscripts are not significantly different via tests of dependent t tests using a $p < .01$ criteria. Effect sizes (η^2) obtained through between-person F tests are listed first and from within-person F tests are listed in parentheses.

a. Indicates that the group of means varied significantly by the within-person F test using lower-bound degrees of freedom ($p < .05$).

STUDY 1

Method

PARTICIPANTS

Students were recruited from an upper-level undergraduate course on social science research methods. A total of 43 students completed the full research instrument during the first lab section of the class. The majority of the sample was female (77%). All participants completed an informed consent form before the survey and were fully debriefed following the conclusion of the survey.

PROCEDURE AND MATERIALS

The survey materials were available on a Web site and participants were given instructions on how to complete the materials online. Participants completed the materials in a computer lab during a scheduled class period. After entering the Web site and reading the consent form, participants were given a form headlined with the question, "How do you expect a typical high school teenager to behave?" Additional instructions were given as follows:

It is thought that people will often act according to the expectations other people have for the role or roles they play in life, such as teenager, parent, sister, or friend. In this section of the survey we would like you to describe how you would expect a *typical high school teenager* to behave. By "expectation" we mean the style or manner you expect a *typical high school teenager* to act. Your expectations can be both positive and/or negative depending on how you believe a typical teenager behaves. For example, one might expect a person in the role of telemarketer to be "extraverted" (positive) yet "unsympathetic" (negative).

The instructions above were modified slightly to rate a typical college student, parent, and grandparent by replacing the target in the instructions. Participants

thus completed the survey, rating four different target groups for expected personality characteristics.

Big Five measure. Participants were asked to rate expectations of the target on 53 trait adjectives. These items were selected from Goldberg's 100 markers of the Big Five (Goldberg, 1992). For each Big Five trait, 10 of Goldberg's 20 items were selected that have demonstrated good reliability in self-reports of personality in past research, with the exception of the emotional stability scale, which was composed of 3 additional items for a total of 13 items (Walton & Roberts, 2004). It should be noted that the items of the extraversion scale (e.g., talkative, energetic, shy) align the measure more with the social vitality facets of extraversion, which have been found to decrease with age (Roberts et al., 2006). Participants completed this list for each target being considered; thus, each target group (high school student, college student, parent, and grandparent) had ratings on expected levels of extraversion, agreeableness, conscientiousness, emotional stability, and intellect.¹ The items were rated on a 5-point scale ranging from *very uncharacteristic* (1) to *very characteristic* (5). The alpha reliabilities of the Big Five scales in rating these targets were greater than .75.

Perceived age of target. Following the ratings of personality expectations of the target, participants were asked the age of a typical person of each target group. The mean perceived age of the typical high school teenager was 16, college student was 20, parent was 40, and grandparent was 68 years old, $F(1, 41) = 2150.6$, $p < .05$, $\eta^2 = .97$ and indicated that participants were clearly interpreting the different groups as age-graded.²

Results

Personality expectations across targets. The mean-level patterns of expectations for the four target groups are shown in Table 1. Because participants supplied ratings for each target group, creating dependence between the target ratings, repeated-measures ANOVA

and paired-sample t tests were used to test for differences between the target groups. Given the large number of possible pairwise comparisons (e.g., expected extraversion of high school students and grandparents), a more conservative $p < .01$ criteria was used to evaluate significant differences. The results are explained separately for each trait.

Extraversion. Consistent with the existing research on the social vitality facet of extraversion, we found expectations for extraversion to decrease across age groups. There were no differences between high school and college students, indicating that individuals expected the typical high school and college student to act in an extraverted fashion, $t(42) = 0.13, p = .90$. Parents were expected to be less extraverted than college students, $t(42) = -4.5, p < .01$, and grandparents were expected to be less extraverted than parents, $t(42) = -7.7, p < .01$.

Agreeableness. Consistent with research, expectations for agreeableness increased significantly at each successive age. College students were expected to be substantially more agreeable than high school students, $t(42) = 5.9, p < .01$. In turn, parents were expected to be more agreeable than college students, $t(42) = 3.4, p < .01$, and grandparents were expected to be more agreeable than parents, $t(42) = 2.87, p < .01$.

Conscientiousness. Also consistent with cross-sectional and longitudinal research, the expectations for conscientiousness rose across age groups. College students were expected to be more conscientious than high school students, $t(42) = 8.9, p < .01$. In turn, parents were expected to be more conscientious than college students, $t(42) = 9.3, p < .01$. Of interest, the mean expectation for conscientiousness for grandparents was slightly lower than for parents, $t(42) = -4.2, p < .01$. Nonetheless, the expectations for grandparents were still higher than those for college or high school students, $t(42) > 6.3, ps < .01$. The largest differences between groups were seen for this trait, with the typical parent expected to be nearly two points higher than high school students on the 5-point conscientiousness scale, indicating that high school students were expected to act in a somewhat unconscientious manner ($M = 2.52$), whereas parents were expected to act in a very conscientious manner ($M = 4.34$).

Emotional stability. Mirroring actual personality change findings, participants expected higher levels of emotional stability as the age of the targets increased. Expected emotional stability was higher in college students than high school students, $t(42) = 4.2, p < .01$, for parents than for college students, $t(42) = 3.2, p < .01$, and in turn, for grandparents than for parents, $t(42) = 5.5, p < .01$. Despite the statistically significant increase at each level, the magnitude of the differences was

smaller than for agreeableness and conscientiousness. Participants did not expect high levels of emotional stability from the typical high school student ($M = 2.02$) but expected levels of emotional stability near the scale midpoint (neither characteristic nor uncharacteristic) for grandparents ($M = 3.06$).

Intellect. Similar to the finding of personality change in intellect throughout the life span, expectations for intellect appeared to show a curvilinear pattern similar to that found in longitudinal studies (Roberts et al., 2006). Expectations increased from high school to college students, $t(42) = 3.9, p < .01$, but then descended across the other age groups, becoming successively lower between college students and parents, $t(42) = -4.6, p < .01$, and between parents and grandparents, $t(42) = -4.9, p < .01$.

Discussion

Overall, the pattern of results supports the hypothesis that expectations for behavior in age-graded roles mirror the pattern of personality changes found in diverse longitudinal and cross-sectional studies. Paralleling the actual development of personality traits, expectations for conscientiousness, agreeableness, and emotional stability were higher for individuals in adult roles, whereas expectations for extraversion and intellect were lower. One limitation of this study, however, is that this study was conducted entirely with college students and thus may not be representative of how society at large views the various age groups. Finding that expectations for how to behave in age-graded roles are similar across age groups also would be helpful in making the case that these are prevalent norms that are important in development because part of the power of expectations in guiding behavior is thought to be contingent on how widely shared they are in society (Neugarten, Moore, & Lowe, 1965). The effects of expectations on behavior should be stronger and more enduring when individuals encounter the same expectations from a variety of others (Smith, Jussim, & Eccles, 1999; Morris & Miller, 1975). In Study 2, we thus explored whether the personality trait expectations identified in Study 1 represent a set of shared expectations that can be found across raters of different age groups.

STUDY 2

As in Study 1, college students were asked to fill out questionnaires describing their personality expectations of individuals in different age-graded roles; however, we also asked students to enlist older participants (e.g., parents, grandparents, older acquaintances) to complete the same materials. We hypothesized that personality

TABLE 2: Mean Personality Trait Expectations for Different Targets, Separated by College Student and Older Adult Raters

Target	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect
College student raters ($N = 59$)					
High school student	3.56 ^a (.42)	3.26 (.46)	2.58 (.40)	2.21 (.39)	3.77 ^a (.47)
College student	3.65 ^a (.42)	3.60 (.50)	3.46 (.46)	2.62 (.39)	4.08 (.50)
Parent	3.56 ^a (.47)	3.99 ^a (.51)	4.07 ^a (.47)	2.87 (.43)	3.70 ^a (.52)
Grandparent	3.15 (.43)	4.00 ^a (.59)	3.88 ^a (.53)	3.03 (.42)	3.46 (.59)
$F(1, 58)^a$	23.00	38.47	130.41	55.60	24.86
η^2	0.17 (.28)	0.27 (.40)	0.62 (.70)	0.38 (.49)	0.16 (.30)
Older adult raters ($N = 67$)					
High school student	3.55 ^a (.48)	3.61 (.67)	2.98 (.72)	2.46 (.52)	3.88 ^a (.54)
College student	3.66 ^a (.59)	3.89 (.55)	3.55 (.67)	2.75 (.45)	4.10 (.52)
Parent	3.60 ^a (.42)	4.14 (.61)	4.09 ^a (.54)	2.94 (.51)	3.78 ^{ab} (.52)
Grandparent	3.38 (.44)	4.26 ^a (.59)	3.99 ^a (.59)	3.12 (.45)	3.65 ^b (.62)
$F(1, 66)^a$	6.30	35.10	82.31	34.91	14.34
η^2	0.06 (.09)	0.15 (.35)	0.34 (.56)	0.22 (.35)	0.08 (.18)

NOTE: Standard deviations of the ratings within each target group are shown in parentheses. Means in the same column with shared subscripts are not significantly different via tests of dependent t tests using a $p < .01$ criteria. Effect sizes (η^2) obtained through between-person F tests are listed first and from within-person F tests are listed in parentheses.

a. Indicates that the group of means varied significantly by the within-person F test using lower-bound degrees of freedom ($p < .05$).

expectations for the various age-graded roles would again match the developmental patterns of personality across the life span and that the expectations would be largely shared between both college and older participants.

Method

PARTICIPANTS

Two sets of participants were sampled for this study. The first sample consisted of 59 undergraduates who completed the full survey as part of their upper-level research methods course in personality psychology (age $M = 21.2$ years, $SD = 1.8$). This group was composed of 65% women. These participants were asked to recruit two individuals they knew in older age groups (preferably one between 40 and 60 years of age and another older than 60). A total of 67 individuals older than 40 years of age completed the full survey and were placed in a single group of older adults (age $M = 56.3$ years, $SD = 9.9$). As with the undergraduates, the older group was composed largely of women (64%). All participants in both groups completed an informed consent form before the study and were debriefed following the study.

PROCEDURE AND MATERIALS

The Web site and materials that were used in Study 1 was again used for this study. The college participants completed the Web survey during the 1st day of class and then were given passwords for the older adults to log on to the class Web site. The adults then completed the survey during their own time. The alpha reliabilities of all Big Five dimensions were greater than .70.

Perceived age of target. As in Study 1, participants saw each group as clearly distinct in age, $F(1, 110) = 3572$, $p < .05$, $\eta^2 = .95$; however, an interaction between rater group and target group suggested that participants did not have perfect agreement in the ages of the targets, $F(1, 110) = 14.1$, $p < .05$, $\eta^2 = .09$. College students perceived the four targets to have mean ages of 16, 20, 40, and 69, respectively, whereas older adults perceived the targets to be 16, 20, 41, and 63. The two rater groups thus perceived similar ages for all target groups except for grandparents, with college students perceiving the typical grandparent to be older than the adult raters.

Results and Discussion

We first conducted two separate repeated-measures ANOVA analyses for the younger and older groups. The results are shown in Table 2. Overall, the results closely replicated the findings in Study 1. Participants in both groups expected older people to be less extraverted than younger people and, consistent with Study 1, expected older people to be more agreeable, conscientiousness, and emotionally stable. Expectations for intellect varied across target groups, and once again, intellect was expected to be higher in college than in high school but was expected to be lower in parents and grandparents.

We formally tested whether the personality expectations differed across rater groups by conducting a two-way repeated measures ANOVA on each trait, with ratings of personality on different target groups entered as a repeated factor and rater group (college student vs. older adult) as a between-group factor. There were significant effects for rater group on agreeableness,

conscientiousness, and emotional stability, $F(1, 124) \leq 4.65$, $ps < .05$, $\eta^2 \leq .04$, indicating that across targets, older raters expected higher levels of these traits than college raters. Of central interest, however, was the Target \times Rater interaction term, which if significant, would indicate different patterns of expectations across the two rater groups. Only conscientiousness showed a significant Target \times Rater interaction, $F(1, 124) = 4.39$, $p < .05$, $\eta^2 = .03$. The size of this interaction, however, was very small relative to the size of this main effect of the target on conscientiousness expectations, $F(1, 124) = 209.60$, $p < .05$, $\eta^2 = .63$, and inspection of Table 2 indicated that the difference arose because adult raters expected the typical high school student to be more conscientious than expected by college raters. Thus, the pattern of expected personality traits across target groups appeared largely comparable between college students and older adults.³

Beyond replicating the results of the first study, the most important finding of Study 2 is that personality expectations for typical individuals in different age-graded roles are shared across age groups. In turn, this congruence strengthens the argument that role expectations may be a strong normative force in the development of personality traits, in that the force of expectations on behavior should be greatest when expectations are consistent across various constituencies (Morris & Miller, 1975; Smith et al., 1999). This study suggests that precisely this sort of consensus may exist concerning how people are expected to act within age-graded roles.

STUDY 3

Because the roles of the targets rated in the first two studies were very clearly associated with certain ages, it is unclear from these studies whether participants were using the information about the roles or the ages of the targets in forming their expectations of the targets. Age and role information are thus confounded in these studies. For instance, the increase in expectations for conscientiousness observed between college students and parents in our studies may be due to expectations of how to act in the parent role relative to a college student role. Alternatively, the difference may be due to how a 40-year-old should act relative to a 20-year-old.

In Study 3, we thus attempted to disentangle the different role expectations from age expectations. If the enactment of age-graded roles is the driving force for personality development, it is possible that any apparent age effects on expectations found in Studies 1 and 2 may be eliminated once expectations associated with employment, marriage, and parenthood are separated from expectations associated with chronological age. We thus aimed to replicate the findings of Studies 1 and 2, in this

case while fully crossing the roles across age groups.⁴ One of the advantages of this approach is that it allows us to test whether life experiences such as marriage are met with different expectations at different ages. For instance, society may have a very different set of expectations for the behavior of parents who are teens relative to parents who are in midlife and may not bestow positive expectations on individuals on account of their roles unless the roles have been entered at the "right time" (Hagestad & Neugarten, 1985; Helson, Mitchell, & Moane, 1984).

We tested two major hypotheses with Study 3. First, we hypothesized that the pattern of age expectations would continue to mirror the pattern of personality change but that since the ratings of targets such as the typical parents in Studies 1 and 2 were informed both by their role (parents) and their perceived age (approximately 40), disentangling age and role information should result in a lower main effect of age on expectations. The expectation that older individuals are higher on traits associated with functional maturity (agreeableness, conscientiousness, and emotional stability; Hogan & Roberts, 2004) might be carried largely by expectations of how individuals act in adult roles such as being employed, married, and a parent. Second, by unconfounding age and roles, we expected to find interactions that would suggest more complex relationships between the two factors, whereby the trait expectations met by typical role members are not expected in individuals who are in roles at the "wrong" ages, for instance by getting married and becoming a parent as a teenager or remaining employed after typical retirement age.

Method

PARTICIPANTS AND PROCEDURE

A total of 252 participants were recruited from a subject pool for an entry-level psychology course at a large midwestern university. Participants were 59% female and had a mean age of 18.7 ($SD = 1.2$). All participants were given class credit for their participation in the experiment.

MATERIALS

Targets. Participants filled out forms describing how they expected four targets to behave. The four targets were hypothetical persons who were described with minimal demographic information about their age, gender, and roles. The information on each form described the person's age (targets were described as a 17-year-old teenager, a 28-year-old young adult, middle-aged [age 45], or old-aged [age 68]), gender (male or female), employment status (either regularly employed for several years or [the target] does not have a job), marital status (either married or unmarried), and parental status (either has two children or has no children).

There were thus two levels of each demographic variable outside of age, which had four levels. Each rating form combined these five elements to make a short, two-sentence character description, for example, "Benjamin is a 17-year-old teenager and he does not have a job. He is married, and has two children" or "Jean is old-aged (age 68) and she has been regularly employed for several years. Jean is married and has no children."

As in Studies 1 and 2, participants were asked to rate one target at each age level (17, 28, 45, and 68 years), and these were completed in order, with all participants rating the 17-year-old first and 68-year-old last. The other stimulus information concerning the target's role status and gender was combined in quasi-random fashion. For each age level, the three roles (marital, parental, and employment status) and gender were combined randomly with two constraints: (a) the participant did not receive identical combinations of the other characteristics at any two age levels (e.g., two or more targets at different ages that were both male, unemployed, married, and had two children) and (b) the participant received at least one form that contained the other value of each demographic variable (e.g., not all four targets they received were unemployed or employed). Finally, as a protection against spurious correlations between gender or role variables due to the randomization procedure, a measure was taken to ensure that all 16 combinations of the gender, and employment, marital, and parental status variables (2^4) were approximately equally represented in the sample. The randomization procedure proved successful in that none of these sources of target information were correlated within any given age group level (i.e., gender and employment, marital, and parental status were all uncorrelated; all $|rs| < .08$, $ns > 251$, $ps > .23$).

Expected personality ratings. The expectations of each target's personality traits were assessed by using the 53 trait adjectives used from the previous two studies. Participants were asked to circle a number indicating "whether that trait describes how you would expect this person to behave" on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Alpha reliabilities for all Big Five trait expectation measures were greater than .73.

Sources of expected personality. We tested for personality expectations resulting from age effects, roles effects, or their interaction. Because the conditions that participants were assigned to were random and were not repeated across participants (i.e., participants were not asked to rate the same target at each age as in Studies 1 and 2 but rated a combination of targets that was unique for each participant), assumptions necessary for repeated-measures ANOVA designs were violated and this analysis was forgone in favor of simple ANOVA analyses, with each rating of a target treated as a separate observation and possible within-person dependencies treated as error variance.⁵

Five ANOVAs were conducted (one for each Big Five trait), which simultaneously included age, gender, roles, and Age \times Role interactions. The means and significance of each set of effects are shown in Tables 3 and 4, and significant differences found for each set of effects are discussed below. Partial η^2 values are reported as the measure of effect size, which are larger than classical η^2 values and thus a more conservative test of whether the effect of age has decreased after disentangling social role information (Pierce, Block, & Aguinis, 2004).

Results and Discussion

Age and expectations. We first tested whether the pattern of expectations across age groups mirrored the pattern of expectations found in the previous two studies. We did not expect a perfect replication in this case because the target individuals in this study often were not representative of what one might call the typical person within each age group, and two of the age-graded roles analyzed in the two previous studies (grandparent and college student) were not analyzed here. Nonetheless, the patterns of expectations across each age category and Big Five trait domain closely resembled the results of Studies 1 and 2 (see Table 3). Raters expected personality differences between age groups for all Big Five traits. Small differences in expectations were observed for extraversion and agreeableness, $F_s(3, 984) \leq 9.6$, $ps < .05$, $\eta^2 \leq .04$, whereas larger variation was observed for conscientiousness, emotional stability, and intellect, $F_s(3, 984) \leq 28.4$, $ps < .05$, $\eta^2 \leq .09$. Inspection of the means from Table 3 indicated that raters expected older targets to be less extraverted than older individuals but more agreeable, conscientious, emotionally stable, and intellectual. Consistent with the two previous studies, expectations for intellect increased from adolescence to young adulthood; however, these expectations did not then decline from middle age to old age, instead appearing to increase nearly linearly across all age groups. Also, as expected, the expected mean-level differences across age groups appeared smaller in this study than the previous studies following the separation of target age and role information. Nonetheless, the majority of the findings again showed strong agreement between the pattern of personality expectations for age and the actual pattern of personality changes exhibited over the life span.

Gender differences. We next tested whether people held different expectations for men and women across the age and role categories. Women were expected to be slightly higher in extraversion, agreeableness, conscientiousness, and intellect but lower in emotional stability, all $F_s(1, 984) \leq 10.48$, $ps < .05$, $\eta^2 \leq .01$. In addition, two Age \times Gender interactions were found (see Table 4), indicating that women were expected to be more conscientious than men in middle adulthood and

TABLE 3: Mean Personality Trait Expectations for Different Target Ages, Genders, and Role Statuses (Study 3)

Target Information	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect
Age 17	3.33	3.28	2.88	2.56	3.00
Age 28	3.21	3.46	3.30	2.72	3.31
Age 45	3.14	3.44	3.38	2.72	3.30
Age 68	3.09	3.57	3.62	2.95	3.45
$F(3, 984)$	11.83 ^a	9.60 ^a	65.31 ^a	35.47 ^a	28.38 ^a
Partial η^2	.04	.03	.17	.10	.09
Man	3.14	3.33	3.19	2.82	3.19
Woman	3.24	3.53	3.40	2.66	3.33
$F(1, 984)$	10.48 ^a	27.99 ^a	29.23 ^a	39.59 ^a	14.27 ^a
Partial η^2	.01	.03	.03	.04	.01
Unemployed	3.04	3.28	2.93	2.66	3.04
Employed	3.34	3.58	3.64	2.81	3.48
$F(1, 984)$	87.32 ^a	64.20 ^a	353.65 ^a	35.91 ^a	157.54 ^a
Partial η^2	.08	.06	.26	.04	.14
Never married	3.12	3.28	3.19	2.71	3.24
Married	3.27	3.59	3.40	2.76	3.28
$F(1, 984)$	20.46 ^a	67.90 ^a	29.31 ^a	3.91 ^a	1.15
Partial η^2	.02	.07	.03	.00	.00
No children	3.10	3.38	3.32	2.80	3.27
Two children	3.29	3.49	3.27	2.68	3.25
$F(1, 984)$	35.94 ^a	9.75 ^a	2.37	20.99 ^a	0.37
Partial η^2	.04	.01	.00	.02	.00
<i>SD</i>	0.57	0.66	0.77	0.47	0.63

NOTE: $N \leq 251$ for all cells. F test values for differences due to demographic information (age, gender, or roles) in the same column are shown below the means for each set of target information. F test values were obtained from an ANOVA involving age, role, and Age \times Role interactions; the F values for Age \times Role interactions are shown in Table 4.

a. Indicates that the group of means for a given trait varied significantly by the F test ($p < .05$).

that men were expected to decrease in extraversion with age more than women.⁶

Role effects. A primary goal of Study 3 was to test which types of roles were associated with the expectations identified in Studies 1 and 2. Three roles—work, marriage, and parenthood—were systematically varied across the age groups. Work was clearly the most significant in patterning expectations. Targets who were employed were expected to be substantially higher on the positive poles of all Big Five traits, with the smallest differences for emotional stability, agreeableness, and extraversion, $F_s(1, 984) \leq 35.91$, $p_s < .05$, $\eta^2 \leq .04$, and more sizable differences on intellect, $F(1, 984) = 157.5$, $p < .05$, $\eta^2 = .14$, and particularly on conscientiousness, $F(1, 984) = 353.7$, $p < .05$, $\eta^2 = .26$. Of interest, the effect size of employment status on personality expectations was larger than the effect size of age for all traits except for emotional stability. The patterns of expectations for work roles also may help to explain the drop in expected extraversion, intellect, and conscientiousness found in the previous two studies in old age because it is reasonable for raters to assume that the typical grandparent may be retired and is therefore not evaluated with expectations associated with being employed.

The marriage role was associated with smaller positive expectations for four of the Big Five domains.

People who were married were expected to be more extraverted, agreeable, and conscientious, $F_s(1, 984) \leq 20.46$, $p_s < .05$, $\eta^2 \leq .02$. Marriage appeared to have a small general positive effect on expectations for emotional stability, $F(1, 984) = 3.9$, $p < .05$, $\eta^2 = .004$.

The parent role had the smallest effect on expectations for personality traits and in one case led to expectations that contradicted the general tendency for roles to be equated with positive expectations. Being a parent engendered expectations of being more extraverted and agreeable, $F_s(1, 984) \eta = 9.8$, $p_s < .05$, $\eta^2 \leq .01$, but also of being less emotionally stable, $F(1, 984) = 21.0$, $p < .05$, $\eta^2 = .02$. The latter effect was contrary to the general trend for increased expectations of emotional stability with age, which we expected would be paralleled by increased expectations of emotional stability with the adoption of adult roles.

Interactions between roles and age. We next examined whether the effects of role status on personality expectations varied with age by considering Age \times Role interactions. As can be seen from Table 4, the effect of role information on personality expectations was regularly moderated by age. By plotting the means shown in Table 4, the general conclusion drawn from the interactions is that roles had less effect on expectations of personality traits at age 17 and affected expectations

TABLE 4: Mean Personality Trait Expectations for Different Gender and Role Statuses by Age (Study 3)

Target Age	Extraversion		Agreeableness		Conscientiousness		Emotional Stability		Intellect	
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Target gender (S1 = male, S2 = female)										
17	3.38	3.29	3.25	3.31	2.87	2.89	2.67	2.45	2.96	3.03
28	3.15	3.27	3.37	3.53	3.15	3.44	2.84	2.61	3.23	3.39
45	3.04	3.22	3.27	3.59	3.17	3.55	2.75	2.68	3.19	3.39
68	2.98	3.20	3.44	3.69	3.55	3.70	3.03	2.87	3.40	3.49
Gender × Age <i>F</i>	4.99 ^a		1.99		4.62 ^a		1.51		.78	
Partial η^2	.02		.01		.01		.01		.00	
Target employment status (S1 = unemployed, S2 = employed)										
17	3.26	3.42	3.18	3.39	2.60	3.18	2.56	2.56	2.88	3.12
28	3.00	3.39	3.23	3.65	2.77	3.76	2.59	2.84	2.94	3.63
45	2.91	3.33	3.28	3.58	2.90	3.78	2.60	2.81	3.00	3.55
68	2.96	3.22	3.43	3.71	3.45	3.80	2.87	3.03	3.32	3.57
Employment × Age <i>F</i>	3.08 ^a		1.53		14.73 ^a		3.82 ^a		10.27 ^a	
Partial η^2	.01		.01		.04		.01		.03	
Target marital status (S1 = unmarried, S2 = married)										
17	3.32	3.35	3.23	3.33	2.90	2.86	2.63	2.50	3.08	2.91
28	3.15	3.26	3.27	3.63	3.15	3.45	2.64	2.80	3.24	3.38
45	2.99	3.30	3.23	3.67	3.15	3.63	2.66	2.78	3.21	3.40
68	3.01	3.16	3.39	3.74	3.56	3.68	2.92	2.98	3.44	3.45
Married × Age <i>F</i>	3.00 ^a		4.34 ^a		8.29 ^a		6.33 ^a		5.71 ^a	
Partial η^2	.01		.01		.03		.02		.02	
Target parental status (S1 = no children, S2 = two children)										
17	3.39	3.28	3.47	3.09	3.09	2.68	2.69	2.45	3.16	2.84
28	3.10	3.33	3.37	3.55	3.32	3.28	2.82	2.61	3.34	3.28
45	2.97	3.30	3.29	3.59	3.32	3.43	2.78	2.65	3.25	3.35
68	2.93	3.25	3.39	3.74	3.56	3.69	2.90	2.99	3.33	3.56
Parental × Age <i>F</i>	10.38 ^a		21.18 ^a		11.68 ^a		8.27 ^a		12.65 ^a	
Partial η^2	.03		.06		.03		.03		.04	

NOTE: $N \leq 116$ for all cells. S1 and S2 = Status 1 and Status 2, respectively, and are indicated separately for each section. *F* test values for interactions between roles and age of target on expected personality traits are shown below the means for each given set of target information. *F* test values were obtained from an ANOVA involving age, role, and Age × Role interactions; the *F* values for main effects are shown in the preceding table (Table 3). All *F* values are tested with $df_1 = 3$, $df_2 = 984$.

a. Indicates that the group of means for a given trait varied significantly by the *F* test ($p < .05$).

most in early and middle adulthood (ages 28 and 45). For instance, although targets that were employed were expected to behave in a positive fashion at all ages, the differences in expectations between employed and unemployed targets were greatest at ages 28 and 45 and smaller at ages 17 and 68, both ages where it may be considered less normative to be employed (see Figure 1). The types of interactions identified for employment status also appeared to exist for marital status. Married targets were expected to have more positive personality characteristics than unmarried targets at ages 28 and 45, but marriage had mostly negligible effects on expectations at ages 17 and 68. We may consider that this is due to employment and marriage being the most normative in middle adulthood, whereas at 17 an individual is too young to be employed or married and at 68

there are less clear standards because individuals are then retiring and may be widowed or divorced.

In the case of parental status, a different pattern was identified where the trait expectations associated with having or not having a role appeared to reverse at different ages. Using independent *t* tests to compare parents to nonparents within the four age groups, being a parent of two children at age 17 was associated with lower expectations of all Big Five traits relative to childless targets of the same age. Namely, 17-year-old parents were expected to be less agreeable, conscientious, emotionally stable, and intellectual, $t(247) = -4.7$, $ps < .05$, whereas even by age 28 being a parent was positively associated with expectations for extraversion and agreeableness, $t(247) \leq 2.1$, $p < .05$ (see Figure 1), and by age 68, being a parent was positively associated with expectations for all



Figure 1 Interactions between roles and age in predicting personality expectations.

Big Five characteristics except for emotional stability, $t(247) = 1.8, p > .05$. In summary, the interactions between age and roles suggested that the extent to which roles affect how we expect people to behave depends on the age of the target.

A key aim of Study 3 was to separate the effects of age and roles in age-related expectations. In doing so, we hypothesized that expectations for age-graded roles would continue to largely mirror the pattern of personality trait development that seems to occur across the life span but that the magnitude of age effects observed in the earlier studies would be reduced substantially when roles were separated. This hypothesis was largely supported. Although intellect was expected to be higher among older targets, which is contrary to the pattern of decrease found in adulthood, agreeableness, conscientiousness, and emotional stability were expected to be higher in older targets, patterning the actual increases in these traits with age (Roberts et al., 2006). As hypothesized, targets that were presented as being married, employed, or parents were generally expected to be more extraverted, agreeable, conscientious, stable, and intellectual than targets that were not, particularly among targets in middle adulthood, where the roles were most normative.

STUDY 4

A limitation of Study 3 was that it relied exclusively on college students. It was thus deemed desirable to

replicate the findings of Study 3 with a wider sampling of the general population. As with the earlier replication of Study 1 with a more general sample in Study 2, we expected that the findings from the college sample of Study 3 would be largely replicated with a non-college student sample.

Method

Participants. A total of 127 participants were recruited from two settings. First, 30 participants were approached to participate from the local community by setting up a booth at a local flea market. The remaining 84 participants responded to an ad put into the campuswide newsletter for staff employees of a large midwestern university and completed the survey through the mail. In both settings, participants were given \$5 for completing the survey, which took approximately 15 min to complete. The modal professions reported by the participants were secretary or clerk ($n = 34$), manager ($n = 17$), research assistant ($n = 16$), and teacher ($n = 13$). Only 4 participants were between 18 and 21 years old, and all 4 described themselves as students. Because the principal aim of the current study was to obtain a nonstudent sample, we excluded these 4 individuals, leaving a sample of 123 individuals. Of the remaining participants, ages ranged from 22 to 76, with a median age of 39 ($M = 41.1, SD = 12.1$). Overall, 30 participants were male (24%).

Materials. The forms used for analyses and the randomization procedures for generating sets of targets for each participant were the same as those used in Study 3. Again, the randomization procedure proved successful because none of the gender or role information variables were correlated within the same age group (all $|rs| \leq .10, ps \leq .26$). The effects of each source of information about the target can thus be considered independent.

Results and Discussion

As with Study 3, one ANOVA was conducted for each trait, which included the target's age, their gender and role statuses, and Age \times Role interactions. We discuss effects that were significant in these ANOVA analyses. The results are shown in Tables 5 and 6.

Age effects. There were again significant differences in behavioral expectations for all traits across the four age groups. As in Study 3, the nature of the effects suggested that people expected targets in this study to be less extraverted at older ages but more agreeable, conscientious, emotionally stable, and intellectual, all $F(3, 470) \leq 3.13, ps < .05$.

Gender effects. As in Study 3, across ages, women were expected to be more agreeable and conscientious than men, $F(3, 470) \leq 8.06, ps < .05, \eta^2 \leq .02$. No other

TABLE 5: Mean Personality Trait Expectations for Different Target Ages, Genders, and Role Statuses (Study 4)

Target Information	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect
Age 17	3.49	3.33	2.88	2.59	3.01
Age 28	3.25	3.42	3.26	2.80	3.22
Age 45	3.17	3.35	3.34	2.76	3.29
Age 68	3.27	3.58	3.68	3.03	3.44
$F(3, 470)$	7.47 ^a	3.13 ^a	24.86 ^a	16.84 ^a	8.72 ^a
Partial η^2	0.05	0.02	0.14	0.10	0.05
Man	3.23	3.32	3.17	2.80	3.20
Woman	3.35	3.50	3.40	2.78	3.27
$F(1, 470)$	3.35	8.06 ^a	9.93 ^a	0.87	0.79
Partial η^2	0.01	0.02	0.02	0.00	0.00
Unemployed	3.12	3.27	2.95	2.68	3.02
Employed	3.47	3.57	3.63	2.91	3.46
$F(1, 470)$	44.73 ^a	22.96 ^a	110.99 ^a	25.76 ^a	56.12 ^a
Partial η^2	0.09	0.05	0.19	0.05	0.11
Never married	3.26	3.33	3.22	2.78	3.21
Married	3.32	3.50	3.35	2.80	3.26
$F(1, 470)$	0.34	7.86 ^a	4.11 ^a	0.03	0.59
Partial η^2	0.00	0.02	0.01	0.00	0.00
No children	3.22	3.42	3.34	2.87	3.30
Two children	3.36	3.41	3.23	2.71	3.16
$F(1, 470)$	8.28 ^a	0.00	2.55	14.89 ^a	6.52 ^a
Partial η^2	0.02	0.00	0.01	0.03	0.01
<i>SD</i>	0.64	0.69	0.85	0.54	0.69

NOTE: *F* test values for differences due to demographic information (age, gender, or roles) in the same column are shown below the means for each set of target information. *F* test values were obtained from an ANOVA involving age, role, and Age \times Role interactions; the *F* values for Age \times Role interactions are shown in Table 6.

a. Indicates that the group of means for a given trait varied significantly by the *F* test ($p < .05$).

differences were found. In addition, there were no significant Gender \times Age interactions in this sample.

Role effects. As in Study 3, employment had main effects on expectations for all Big Five traits, with raters expecting employed people to be higher on all traits, $F_s(1, 470) \leq 22.96$, $p_s < .05$, $\eta^2 \leq .05$. Also, similar to Study 3, parental status was associated with expectations of being more extraverted and less emotionally stable, $F_s(1, 470) \leq 8.28$, $p_s < .05$, $\eta^2 \leq .02$, but in this study also was associated with expectations of being less intellectual, $F(1, 470) = 6.52$, $p < .05$, $\eta^2 = .01$. The most dramatic difference occurred for marital status, which in this study was only associated with higher expectations of agreeableness and conscientiousness, $F_s(1, 470) \leq 4.11$, $p_s < .05$, $\eta^2 = .01$. All other effects were insignificant and showed smaller effect size estimates than in Study 3, indicating that the present sample did not systematically see marital status as generally associated with personality characteristics in the same way as the college student sample.

Role and age interactions. As in Study 3, there were a high number of interactions between the roles and age in the present sample. Employment status again interacted with age for expectations of all Big Five traits except for extraversion, $F_s(3, 470) \leq 2.64$, $\eta^2 \leq .02$, with effect sizes and patterns comparable to those in Study 3 (see Table 6). Also, parental status interacted with

expectations for agreeableness, conscientiousness, and intellect, $F_s(3, 470) \leq 2.90$, $p_s < .05$, $\eta^2 \leq .02$. Finally, the Age \times Marital Status interaction term was significant for all trait expectations except for emotional stability, $F_s(3, 470) \leq 3.91$, $p_s < .05$, $\eta^2 \leq .02$, and the effect sizes generally appeared larger than those in Study 3. The nature of the interactions again resembled the nature of the interactions depicted in Figure 1, with employment status being associated with the most positive expectations during middle adulthood and less distinct expectations at ages 17 and 68, where employment is less normative. Also similar to the last study, marital and parental status were associated with negative expectations of most Big Five traits at age 17 but with positive expectations of the same traits in later adulthood.

Effect of rater age on age expectations. Given the considerable range of ages among raters in this study, we next explored whether younger respondents to the survey expected the targets to behave differently than older respondents. This was done by conducting an ANOVA for expectations of each Big Five trait using the age of the participant (rater age) and the age of the hypothetical target (target age) as predictors. Because there were only four target ages (17, 28, 45, and 68), target age was entered into the ANOVA as a categorical variable, whereas rater age was entered as a covariate. The

TABLE 6: Mean Personality Trait Expectations for Different Gender and Role Statuses by Age (Study 4)

Target Age	Extraversion		Agreeableness		Conscientiousness		Emotional Stability		Intellect	
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Target gender (S1 = male, S2 = female)										
17	3.46	3.51	3.33	3.33	2.85	2.92	2.62	2.57	3.03	2.99
28	3.16	3.35	3.31	3.54	3.11	3.42	2.81	2.78	3.15	3.30
45	3.15	3.18	3.19	3.51	3.20	3.48	2.84	2.70	3.18	3.39
68	3.19	3.35	3.48	3.66	3.56	3.78	2.99	3.07	3.45	3.42
Gender × Age <i>F</i>	0.72		1.32		0.76		1.42		0.98	
Partial η^2	0.00		0.01		0.00		0.01		0.01	
Target employment status (S1 = unemployed, S2 = employed)										
17	3.30	3.69	3.20	3.46	2.48	3.31	2.49	2.71	2.84	3.18
28	3.03	3.51	3.18	3.71	2.83	3.78	2.64	3.00	2.92	3.59
45	2.95	3.35	3.15	3.53	2.95	3.68	2.62	2.88	2.98	3.55
68	3.19	3.36	3.56	3.60	3.59	3.77	3.02	3.05	3.37	3.51
Employment × Age <i>F</i>	1.47		3.00 ^a		7.08 ^a		2.64 ^a		4.66 ^a	
Partial η^2	0.01		0.02		0.04		0.02		0.03	
Target marital status (S1 = unmarried, S2 = married)										
17	3.63	3.38	3.46	3.23	3.09	2.73	2.63	2.56	3.23	2.84
28	3.14	3.36	3.24	3.60	3.02	3.51	2.81	2.79	3.07	3.38
45	3.09	3.25	3.22	3.51	3.20	3.51	2.69	2.85	3.21	3.37
68	3.27	3.27	3.45	3.69	3.62	3.72	3.05	3.02	3.37	3.49
Married × Age <i>F</i>	3.91 ^a		5.10 ^a		8.58 ^a		1.57		7.52 ^a	
Partial η^2	0.02		0.03		0.05		0.01		0.05	
Target parental status (S1 = no children, S2 = two children)										
17	3.51	3.46	3.48	3.16	3.17	2.58	2.72	2.46	3.22	2.78
28	3.09	3.38	3.34	3.48	3.15	3.35	3.00	2.63	3.14	3.29
45	3.06	3.28	3.32	3.38	3.39	3.29	2.79	2.73	3.39	3.17
68	3.21	3.33	3.54	3.61	3.67	3.68	3.03	3.03	3.47	3.40
Parental × Age <i>F</i>	1.50		2.90 ^a		5.87 ^a		4.18 ^a		4.46 ^a	
Partial η^2	0.01		0.02		0.04		0.03		0.03	

NOTE: $N \leq 58$ for all cells. S1 and S2 = Status 1 and Status 2, respectively, and are indicated separately for each section. *F* test values for interactions between roles and age of target on expected personality traits are shown below the means for each given set of target information. *F* test values were obtained from an ANOVA involving age, role, and Age × Role interactions; the *F* values for main effects are shown in the preceding table (Table 5). All *F* values are tested with $df_1 = 3$, $df_2 = 470$.

a. Indicates that the group of means for a given trait varied significantly by the *F* test ($p < .05$).

main effect of rater age on expectations was examined, as were interactions between rater age and target age. Finding significant main effects of rater age would indicate that younger respondents systematically rated all targets differently than older respondents, whereas significant interactions between rater age and target age would indicate that young and old respondents had different pictures of how age is associated with personality traits. We found that older participants had higher expectations for openness to experience across all targets, $F(1, 482) \leq 5.44$, $p < .05$, $\eta^2 = .01$, but otherwise generally expected similar levels of traits from the targets for all personality traits. As in Study 2, however, we found no indication of appreciable Rater Age × Target Age interactions, all $F_s(3, 482) \leq 1.37$, $p_s > .16$, indicating that young and old participants shared the same

pattern of expectations concerning how people will act at different ages.

As with Study 2, we again found that the expectations for personality traits on the basis of age and role information were quite consistent across different rater groups. The most significant differences appeared in the fewer significant main effects of parental status on expectations, although the nature of the interactions—with negative expectations of teenage parents and positive expectations of older-age parents—appeared largely the same across both studies. However, the differences in expectations between young and old raters should not be exaggerated: the sample of noncollege students sampled in Study 4 appeared to have expectations that were strikingly similar to the expectations found with a college student sample in Study 3.

GENERAL DISCUSSION

If the expectations of how people behave at different ages or in age-graded roles act as standards that direct the observed patterns of mean-level personality development, we should expect these personality expectations to be widely shared and to correspond to the developmental findings. In four studies, we found evidence that expectations of how individuals behave in age-graded roles are strikingly similar to the actual developmental patterns. The shared nature of the expected pattern of personality differences across the life span by raters of different age groups was consistent with our argument that these expectations may represent widely shared cultural norms. Although more needs to be done to demonstrate the extent to which age expectations are shared across people from more diverse backgrounds and cultures, the current findings suggest that the baseline expectations a person will encounter on the basis of their age and roles will be similar regardless of whether they are interacting with older or younger individuals, which should increase their overall power to influence behavior (e.g., Morris & Miller, 1975; Smith et al., 1999).

The findings of Studies 3 and 4 are consistent with theory that suggests our more general age expectations are largely a function of the expectations associated with age-graded roles such as being an employee or a parent (Roberts et al., 2005; Roberts & Wood, in press). Our findings indicate, however, that whereas expectations associated with age dropped dramatically with the methodological separation of expectations associated with roles, they did not disappear, even when allowing for age-role interactions. These results are consistent with the sometimes forgotten idea that age is itself a role that society associates with certain expectations for behavior (Hagestad & Neugarten, 1985).

Although the results were quite consistent across studies, the present research also has important limitations. Expectations can be theoretically separated into two large classes: descriptive expectations, associated with impressions of how individuals actually or will behave in interactions, and injunctive expectations, associated with impressions of how individuals should or ought to behave (e.g., Cialdini & Trost, 1998). Both descriptive and injunctive expectations are thought to influence behavior, but they may do so through different mechanisms. Descriptive expectations may influence behavior by providing more opportunities to interact in ways that are consistent with preconceptions (Harris & Rosenthal, 1985; Snyder & Stukas, 1999), whereas injunctive expectations may influence behavior by establishing contingencies for approval and rejection (e.g., Sampson & Laub, 1992). The present study does not clearly distinguish between descriptive and injunctive expectations.

Although the two types of expectations are often positively associated, future research might thus attempt to measure descriptive and injunctive expectations independently and simultaneously to differentiate between these normative mechanisms and better understand how each might be related to the general pattern of personality development.

A related limitation is that expectations can be the product of a person's past behavior rather than a cause of these behaviors. It should be remembered, however, that although the correspondence between age expectations and actual development can be largely attributed to perceptual accuracy (personality development → age expectations), this does not preclude them from affecting development (age expectations → personality development). For instance, Jussim and Eccles (1992) found that teacher expectations of student performance were largely accurate but that teacher expectations also guided student development beyond all accurate measures of the student's past performance, indicating that expectations reflect both perceptual accuracy and a force in development. Nonetheless, future research needs to more explicitly address whether expectations guide personality development.

A desirable direction to take to help address the questions of the causal force of expectations in development may be to integrate the assessment of role expectations into longitudinal studies of personality traits. The simultaneous assessment of expectation ratings with personality trait assessments may indicate that the way an individual believes he or she is expected to behave, or the way that important others (e.g., a spouse or employer) expect the individual to behave, helps to direct personality change. In other domains, perceived norms and group-level norms concerning substance use have been found to predict change in substance use throughout the course of a year (Kumar, O'Malley, Johnston, Schulenberg, & Bachman, 2002; Larimer, Turner, Mallett, & Geisner, 2004). Within the academic domain, a single teacher's expectations about his or her students' intelligence have been found to affect student development (Rosenthal & Jacobson, 1968), with effects that are visible even 6 years later (Smith et al., 1999). Longitudinal research could indicate that the expectations people encounter through their roles account for some of the individual differences in developmental trajectories that have been documented by other researchers (e.g., Helson, Jones, & Kwan, 2002; Mroczek & Spiro, 2003) or could help to establish the relative importance of expectations that individuals have for themselves versus expectations held by others (Heckhausen & Krueger, 1993; Martini & Dion, 2001).

Although our central interest in age expectations is in how they may direct trait development, age expectations

also may affect the age differences found with personality scales through mechanisms that do not reflect true trait change. Self-reported trait ratings are not infallible measures of traits and can be influenced by a number of perceptual biases (Lucas & Baird, 2006). Consequently, it is possible that people automatically norm their self-ratings or ratings of others to relevant age or role expectations (e.g., "Adults are quite conscientious, and I'm an adult, therefore I'm conscientious"). Alternatively, individuals may automatically use their perceptions of how people act at their age as a standard for comparison in making trait ratings. For instance, an individual may have changed dramatically in terms of performing behaviors associated with conscientiousness but not register these changes into his or her self-ratings of conscientiousness because the individual perceives that the typical person their age is performing these behaviors at similar rates. These different uses of age expectations would serve to exaggerate or suppress true trait differences by age, respectively (see Biernat, 2003). Given that self-ratings have been found to be affected by stereotypes and social comparisons in other domains (e.g., Marsh & Hau, 2003; Stapel & Koomen, 2005), personality psychologists would do well to explore how the magnitude of age differences found with subjective trait measures are affected by the age expectations documented in the present study.

A primary purpose of the current research was to demonstrate that normative role and age expectations need not be considered invisible and that researchers can test for the personality-expectation relationships that have been hypothesized by some life span developmental theorists in fairly explicit ways. The current cross-sectional studies do not disentangle the two possibilities that expectations of age and age-graded roles guide personality development or are merely accurate in describing personality development, and longitudinal investigations will have to be conducted to disentangle these two possibilities. Regardless of the directionality, however, the present findings are the first to illustrate that individuals expect typical people of different age groups to behave in a manner that shows a high correspondence to the actual developmental patterns of personality traits. Furthermore, the findings of the current study support the hypothesis that this correspondence is not due to age expectations alone but may be aided by the expectations associated with the normative, age-graded roles, such as being married and employed, that individuals encounter in adulthood.

NOTES

1. Emotional stability and intellect are labels from the Goldberg taxonomy of the Big Five, which correspond roughly to the more widely used labels of neuroticism (reverse-scored) and openness to

experience, respectively. Because measures developed within this system will be used throughout the study, Goldberg's labels for the constructs will be used.

2. Because Studies 3 and 4 are conducted using between-subjects analyses, the η^2 statistics reported here and in Study 2 are taken from between-subject ANOVA tests to make the effect size estimates comparable across studies. In addition, the F values reported in Studies 1 and 2 are from repeated-measures ANOVA using the most conservative lower-bound estimates for significance; in no cases did significance differ if more liberal critical values for the F statistic were used (e.g., assuming sphericity across the four ratings or by using Huynh-Feldt adjustments).

3. Participant Gender \times Target interactions also were explored in Study 2, and Participant Gender \times Target Age interactions were explored in Studies 3 and 4. In no cases did these interactions reach significance (all p s $\leq .13$), indicating that expected age differences in personality traits by male and female raters did not differ appreciably.

4. We determined that this approach allowed us to only focus on reasonable combinations. For instance, we decided not to vary the grandparent role across age groups because it would be impossible to be both age 17 and a grandparent. Therefore, we focused on those age-grade roles that could be more universally applied across the life course: work, marriage, and parenthood.

5. We conducted a linear mixed model ANOVA where raters were entered as a random factor to determine whether there were important mean-level differences across raters in trait ratings. For only two of the Big Five traits (agreeableness and openness to experience) did the variance due to the random effect of raters reach significance, and these effects were very small (all Wald Z s ≤ 3.6). It thus did not appear that variance across raters displayed an important general effect on trait ratings.

6. In separate ANOVA analyses, Gender \times Role interactions were explored, but of the 15 possible interactions (3 Gender \times Role interactions by 5 personality traits), only 2 reached statistical significance: Gender \times Employment Status in relation to Conscientiousness and Gender \times Parental Status in relation to Emotional Stability, $F(1, 981) > 6.53$, $p < .05$. The interactions suggest that employed men and women are expected to be equally conscientious, but unemployed men are expected to be less conscientious than unemployed women, and that men and women without children are expected to be equally emotionally stable, but women with kids are expected to be less emotionally stable than men. Overall, we can conclude that trait expectations for roles are highly similar whether the target is presented as a man or a woman.

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Received December 12, 2005

Revision accepted April 30, 2006