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Work Experiences and Personality Development in Young Adulthood

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This longitudinal study provides an analysis of the relationship between personality traits and work experiences with a special focus on the relationship between changes in personality and work experiences in young adulthood. Longitudinal analyses uncovered 3 findings. First, measures of personality taken at age 18 predicted both objective and subjective work experiences at age 26. Second, work experiences were related to changes in personality traits from age 18 to 26. Third, the predictive and change relations between personality traits and work experiences were corresponsive: Traits that "selected" people into specific work experiences were the same traits that changed in response to those same work experiences. The relevance of the findings to theories of personality development is discussed.

During the period of "emerging adulthood" (i.e., ages 15 to 30; Arnett, 2000), most men and women become more socially dominant, warm, responsible, agreeable, and emotionally stable. These normative developmental changes in personality functioning have been observed in multiple birth cohorts, in different western nations, using both longitudinal and cross-sectional research designs (Helson & Kwan, 2000; Helson & Moane, 1987; McCrae et al., 1999; McGue, Bacon, & Lykken, 1993; Roberts, Caspi, & Moffitt, 2001; Roberts, Helson, & Klohnen, 2002; Robins, Fraley, Roberts, & Trzesniewski, 2001). However, these normative changes during the transition from adolescence to adulthood also conceal significant individual differences in change (Roberts, 1997; Roberts et al., 2001; Roberts & Chapman, 2000; Robins et al., 2001). That is, not all people change in the same direction or to the same extent over the same developmental period. The existence of individual differences in change suggests the hypothesis that certain life experiences differentially contribute to normative developmental changes. In this article, we test whether work experiences in young adulthood are related to changes in personality traits during this formative time of life. We examine this developmental process by following a sample of adolescents from age 18 to age 26 and by measuring their personalities and their work experiences over the same time period.

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Work Experiences and Change in Personality Traits

How do work experiences affect change in personality traits? The sociogenic model, which assumes that social structure shapes personality functioning (Inkeles & Levinson, 1963), is most often used as a guiding framework to address this question. Change in personality is thought to result from a person's ongoing participation in social roles and the social interactions entailed therein (Aldwin & Levenson, 1994; Roberts & Caspi, in press). Individuals are assumed to change their behavior as they learn the norms associated with their work roles (Hogan & Roberts, 2000, Sarbin, 1964). Moreover, individuals forge their self-perceptions on the basis of feedback from peers in their social roles, an essential idea of symbolic interactionism (Stryker & Statham, 1985).

A handful of studies have adopted a sociogenic approach and examined the relationship between work experiences and change in personality traits. Elder (1969) found that men's occupational mobility, defined as achieving more than one's father, was associated with becoming more dependable and responsible, independent, and motivated for success. Men who were upwardly mobile also became less self-defeating, less susceptible to withdrawal when frustrated, and less likely to lack personal meaning in their life. Mortimer and Lorence (1979) reported that men who experienced greater autonomy in work increased in competence in the 10 year period following graduation from college. Brousseau and Prince (1981) found that job characteristics were related to changes in personality in a longitudinal study of male engineers. Specifically, being called on to use a wider variety of skills on the job was related to increases in emotional stability and task significance (i.e., the perceived impact of one's work on the lives of others) was related to increases in social dominance.

Several studies have also examined the relation between work experiences and personality change in women. Clausen and Gilens

(1990) reported that women who had high labor-force participation increased in self-confidence from adolescence to midlife. Similarly, Roberts (1997) showed that women's participation and success in the paid labor force were associated with increases in measures of social dominance (dominance, independence) and conscientiousness (responsibility, norm-orientation). More recently, Roberts and Chapman (2000) showed that work satisfaction was associated with increases in measures of emotional stability. It appears that work is a socializing force for both sexes.

Research informed by the sociogenic framework has shown that work experiences are related to personality change. Unfortunately, much of the research inspired by the sociogenic perspective overlooks the reciprocal relationship between personality and work (cf. Kohn & Schooler, 1982). For example, longitudinal studies show that early-emerging traits, detectable in the first decade of life or in adolescence, also influence what people do for a living as adults (Caspi, Elder, & Bem, 1987, 1988; Helson, Elliott, & Leigh, 1989; Judge, Higgins, Thoreson, & Barrick, 1999). The association between personality and work is thus likely to reflect two mutually supportive life-course dynamics: social selection, wherein people select environments that are correlated with their psychological characteristics, and social influence, wherein environmental experiences are likely to affect psychological functioning.

We propose further that social-selection and social-influence processes are linked by the "corresponsive principle," which predicts that the most likely effect of life experience on personality development is to deepen the characteristics that lead people to those experiences in the first place (Roberts & Caspi, in press). Specifically, life experiences that are corresponsive will be viewed as validating and thus rewarding to a person, resulting in an elaboration of the dispositions being rewarded by experience. In contrast, people who enter social spheres that have demands that are extremely different from their personality (e.g., a shy person called on to work in an "extraverted" occupation, such as sales or telemarketing) will be disaffected or alienated and will work to avoid or escape prolonged exposure to the experience. Consistent with the corresponsive principle, we hypothesize that the preponderance of effects of work experience on changes in personality traits will be on those traits that predict the specific work experience. For example, if people assume high-status work, in part because they are socially dominant, then social dominance will be the disposition most likely to change in response to experiencing high-status work. In the present study, we test the corresponsive hypothesis by examining whether the personality traits that predict adult work experiences are the same traits that show change in relations to those same work experiences.

What Work Factors Are Related to Change in Personality Traits?

As previous research has shown, the scope of the work → personality relationship is broad, with work having effects on a wide variety of traits, such as emotional stability, conscientiousness, self-confidence, and agreeableness. As such, an adequate test of how work experiences are related to change in personality requires a systematic assessment of personality traits. We have incorporated into our longitudinal–epidemiological design the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982), a comprehensive personality assessment system that measures one of the better known contemporary structural models of personality traits (Church & Burke, 1994). The MPQ is well suited to examining both the higher order and lower order levels of the personality trait hierarchy. At the highest level of the hierarchy, the MPQ provides information on four higher order dimensions, or superfactors: Negative Emotionality (NEM), Communal Positive Emotionality (PEM-Communion), Agentic Positive Emotionality (PEM-Agency), and Constraint. We will use these dimensions of personality to both predict work outcomes prospectively and test whether work experiences are associated with changes in personality traits over time.

One of our primary goals for this study was to examine a comprehensive battery of work experiences and their relation to personality development. Most previous research testing the relation between work experiences and personality change has focused on only one or two work experiences at a time. By including multiple objective and subjective descriptions of work experience, we can better understand the role of work in personality development and test whether specific aspects of work experience are more important than others in accounting for personality development. On the basis of previous research, we identified five experiential factors that have the potential to be related to change in personality traits. The first, and most commonly studied aspect of work is occupational attainment (Elder, 1969; Helson et al., 1989; Kohn & Schooler, 1978; Roberts, 1997). Occupational attainment reflects differing levels of success according to an objective or consensual perspective; low-level jobs involve unskilled, low-paying work professions (e.g., construction laborer, oyster canner), whereas high-level jobs involve highly skilled, well-paying work (e.g., dentist, lawyer). Typically, measures of occupational attainment, which consist of educational level, earnings, and job prestige, overlap greatly with the work complexity, which is a critical dimension related to changes in both cognitive functioning and personality (Kohn & Schooler, 1978). On the basis of previous research, we hypothesized that occupational attainment would be related to decreases in NEM traits and increases in Agentic traits and to traits drawn from the domain of Constraint (Elder, 1969; Helson et al., 1989; Roberts, 1997).[1]

A second domain of work-related socialization that is often thought to be related to occupational status is power: the ability to get things done, to mobilize resources, and to get and use whatever it is that a person needs for the goals he or she is attempting to meet in work settings (Kanter, 1993). Power can be differentiated into aspects within a person, such as charisma, and aspects within the organizational role or position that a person occupies, such as the resources available to a chief executive officer to act on an idea (Yukl, 1989). In the present article, we focus on attributes of power associated with a person's position in an organization; what French and Raven (1959) called "reward power" and "coercive power." Reward power reflects the ability to persuade individuals to act through giving them some tangible asset such as a job, raise, or a

[1] Given the corresponsive hypothesis, we expect that every hypothesis stated in terms of how work experiences are related to change in personality will also hold for the predictive relationship between personality and work experiences.

promotion. Coercive power reflects the ability to take these same assets away through firing or demoting a person. No previous research has tested the relationship between power and change in personality. On the basis of cross-sectional research relating social power to personality, we hypothesized that this domain of work should be positively related to "leadership" traits, which corresponds to the PEM-Agency dimension (Anderson, John, Keltner, & Kring, 2001).

To complement these objective indices of work success, we also assessed the subjective experience of success captured in measures of satisfaction and involvement in work. Previous research has shown that the subjective or emotional aspects of work experiences, such as work satisfaction, are related to changes in traits found in the domain of NEM (Roberts & Chapman, 2000). Also, cross-sectional studies have shown a strong relationship between the emotional commitment to work, captured in measures of job involvement, and personality traits related to Constraint and PEM-Communion (Organ & Lingl, 1995). We assessed both work satisfaction and involvement and relate these two experiences to change in personality with the expectation that higher work satisfaction should be related to decreases in NEM, and work involvement should be related to increases in traits from the domains of Constraint and PEM-Communion.

An additional psychological aspect of work that is especially important during the transition from adolescence to adulthood is the feeling that one is gaining financial security. According to Arnett (2000), young adults who feel that they earn enough money to be financially secure are more likely to also feel that they have "made" the transition to adulthood or maturity. Given the association between maturity and traits such as emotional stability, agreeableness, and conscientiousness (Roberts, Robins, Caspi, & Trzesniewski, in press), we hypothesized that achieving financial security should be related to decreases in NEM, and increases in social closeness, and Constraint.

Finally, we also assessed job characteristics associated with desirable and undesirable work (Jencks, Perman, & Rainwater, 1988). These included questions about the amount of close supervision a person experienced, decision latitude, whether a person got dirty on the job, and whether a person performed a wide variety of stimulating tasks. We performed a principal-components analysis on these dimensions to arrive at a smaller set of job characteristics and therefore have no specific hypotheses about these features of the job.

In the present study, we gathered information on occupational attainment, power, work satisfaction and involvement, financially independence, and job characteristics. Our analysis proceeds in five steps. First, we describe the normative transitions that the sample experienced from age 18 to age 26 and the types of jobs the participants occupied at age 26. Second we use principal-components analysis to identify unique work-related socialization factors in young adulthood. Third, we test the predictive associations between adolescent personality traits and work experiences in young adulthood. Fourth, we test whether specific work experiences were related to specific personality changes from adolescence to adulthood. Fifth, we test whether the predictive associations between adolescent personality traits and work experiences in young adulthood were corresponsive with the associations between work experiences and changes in personality.

Method

Participants

Participants are members of the Dunedin Study (see Silva & Stanton, 1996), a longitudinal investigation of the health and behavior of a complete cohort of consecutive births born between April 1, 1972, and March 31, 1973, in Dunedin, New Zealand. When the children were traced for follow-up at 3 years of age, 1,037 children (91% of the eligible births, of whom 52% were boys) participated in the assessment and formed the base sample for the longitudinal study. With regard to social origins, the children's families were representative of the social-class and ethnic distribution in the general population of New Zealand's South Island. With regard to ethnic distribution, the study members are of predominantly European ancestry. Fewer than 7% identify themselves as Maori or Pacific Islander. Cross-national comparisons and replication analyses lend some confidence about generalizing findings from the Dunedin Study to other western nations (see Moffitt, Caspi, Rutter, & Silva, 2001). Follow-ups of the sample have been carried out at ages 5, 7, 9, 11, 13, 15, 18, 21, and most recently, 26, when we assessed 980 (96%) of the 1,019 study members still alive. For the current study, we focus on the subset of individuals who provided information about their work experiences at age 26 and who were not homemakers at the time of the interview (N = 910).

Personality Measure

As part of the age-18 and age-26 assessments, participants completed a modified version (Form NZ) of the MPQ (Tellegen, 1982; Patrick, Curtin, & Tellegen, in press; see also Krueger, Caspi, & Moffitt, 2000). Complete personality protocols on both occasions are available for 921 participants. The MPQ is a self-report personality instrument designed to assess a broad range of individual differences in affective and behavioral style and yields 10 primary scales (the Absorption scale was not included in our administration of the MPQ). These 10 primary scales can be organized under a three (NEM, Positive Emotionality [PEM], and Constraint) or four superfactor structure in which PEM is further divided into PEM-Agency and PEM-Communion. For the purposes of the present research we use the four-factor structure.

NEM is a combination of the Aggression, Alienation, and Stress Reaction scales. Individuals high on this dimension have a low general threshold for the experience of negative emotions such as fear, anxiety, and anger, and tend to be involved in antagonistic relationships. PEM-Communion is a combination of the Social Closeness and Well-Being scales and reflects positive emotional responsiveness and interpersonal connectedness. PEM-Agency is a combination of the Achievement and Social Potency scales and reflects positive emotional responsiveness and effectance. Constraint is a combination of the Traditionalism, Harm Avoidance, and Control scales. Individuals high on this factor tend to endorse social norms, act in a cautious and restrained manner, and avoid thrills. We scored these superfactors by summing the relevant subscales and used these as a supplement to the primary MPQ scales. Scale names, reliability estimates, and descriptions of high scorers are shown in Table 1.

Measures of Work Experience

To assess work experiences, study members were interviewed about their work as part of a life-history interview inquiring about their transition to adulthood.

Occupational prestige. Each study member's occupational status was measured with a 6-point scale that places each occupation into one of six categories (1 = *unskilled laborer* [e.g., oyster canner], 6 = *professional* [e.g., dentist]) on the basis of the educational levels and income associated with that occupation in data from the New Zealand census (Elley & Irving,

Table 1
Multidimensional Personality Questionnaire (MPQ) Scale Descriptions and Reliability Estimates

MPQ scale	Age-18 reliability[a]	Age-26 reliability	Description of high scorer
Constraint	.82	.87	Endorses social norms; acts in a cautious and restrained manner; avoids thrills
Traditionalism	.63	.74	Desires a conservative social environment; endorses high moral standards
Harm Avoidance	.71	.79	Avoids excitement and danger; prefers safe activities even if they are tedious
Self-Control	.79	.81	Is reflective, cautious, careful, rational, and planful
Negative emotionality	.86	.89	Experiences elevated levels of negative emotions such as fear, anxiety, and anger; antagonistic
Aggression	.78	.81	Hurts others for own advantage; will frighten and cause discomfort for others
Alienation	.76	.83	Feels mistreated, victimized, betrayed, and the target of false rumors
Stress Reaction	.80	.83	Is nervous, vulnerable, sensitive, prone to worry
Agentic positive emotionality	.80	.79	Seeks pleasurable experiences by engaging the environment and conquering the challenges it may present
Achievement	.69	.75	Works hard; enjoys demanding projects and working long hours
Social Potency	.76	.78	Is forceful and decisive; fond of influencing others; fond of leadership roles
Communal positive emotionality	.76	.84	Seeks pleasurable experiences by establishing warm relationships with others
Well Being	.67	.75	Has a happy, cheerful disposition; feels good about self and sees a bright future
Social Closeness	.75	.80	Is sociable; likes people and turns to others for comfort

[a] Cronbach's alpha was used for reliability estimates of the 10 primary scales. Composite reliability was used for reliability estimates of the Constraint, Negative Emotionality, Agency, and Communion superfactor scales.

1985). Homemakers and students were excluded from this analysis ($n = 44$, or 5% of the sample).

Occupational complexity. We also derived complexity scores from empirically derived core scales generated from analyses of the *Dictionary of Occupational Titles* codes for each study member's job title at age 26 (Gottfredson & Holland, 1996; Kessler & Frank, 1997). Total complexity reflects the level of complexity having to do with data, people, and things on the job.

Education level. Education level was measured on a 5-point scale relevant to the New Zealand educational system (0 = *no school certificate*, 1 = *school certificate*, 2 = *sixth form certificate*, 3 = *bursary*, 4 = *university attendance*).

Earnings. Participants indicated how much money they earned at their job and the time unit that the earnings represented (hour, day, week, month, or year). Pretax hourly wages were computed for each participant using this information.

Power. Interview items were written to assess the extent to which study members had control over people and money in their work situations. Control over people was reflected in items such as having a say in hiring or firing coworkers, supervising people (all scored yes = 1, no = 0), and number of people supervised. Control over money was reflected in items such as having a say in giving pay raises and having a budget at work (scored yes = 1, no = 0).

Work satisfaction. Work satisfaction was measured with self-report interview questions that tapped the study members' satisfaction with work (Greenberger & O'Neil, 1993). Sample items from the work satisfaction scale included the following: "How satisfied are you in this job?," scored on a 3-point scale ranging from 0 (*not satisfied*) to 2 (*very satisfied*); "Do you often think of quitting your job," scored on a 2-point scale (yes = 1 and no = 0); and "Is this the right job for you?," scored on a two-point scale (yes = 1, and no = 0). Items were z-scored before being combined into a scale. The five-item Work Satisfaction scale had an alpha reliability of .70.

Work involvement. Work involvement also was measured with self-report interview questions that tapped the study members' behavioral and psychological commitment to their job (Greenberger & O'Neil, 1993). Work involvement was measured with an eight-item scale (alpha reliability = .81). Sample items included the following: "Your job is very important to you"; "The most important things in life happen to you at work"; and "You would work despite winning the lotto." The work involvement questions were scored on a 3-point scale ranging from 0 (*not true*) to 2 (*very true*).

Financial security. As part of the life-history interview, we asked study members three questions about the adequacy of their earnings: "Did you ever have no money for food?"; "Did you ever have no money for medications?"; and "Did you have trouble paying bills?" (Mayer & Jencks, 1989). Responses to these questions were rated on a 3-point scale ranging from 0 (*never*) to 2 (*often*). These three questions were reversed and summed in order to score people on the financial security dimension (alpha reliability = .71).

Job characteristics. Dichotomously answered interview items (yes = 1 and no = 0) were drawn from the work of Kohn and Schooler (1982) and the job desirability index (Jencks et al., 1988). We selected items for this study that reflected day-to-day activities on the job, such as whether the person had a boss, whether their job allowed them to use their skills and abilities, and whether they could set their own hours.

Analytical Issues

The number of participants in the study guaranteed high power, which rendered statistical significance a relatively meaningless system for evaluating the existence of effects (e.g., correlations of .07 were statistically significant at the $p < .05$ level). Given the number of relationships we evaluated, we used the $p < .01$ level of statistical significance to refer to an effect as statistically significant. Moreover, we used Cohen's (1992) effect size scale as a heuristic to guide our interpretation of findings (i.e., $r = .10$ is a small effect, $r = .30$ is a medium size effect, and $r = .50$ is a large effect). Specifically, we only considered small effect sizes (e.g., $r = .10$ or larger) as meaningful.

Results

The Developmental Context of the Sample

Consistent with the idea that young adulthood is a time of flux, the sample experienced tremendous changes over the 8 years of

this study. During their 18th year of life, 70% of study members were still enrolled in school and only 26% were working more than 35 hours per week. Only 1 person was married and fewer than 2% had children. In contrast, by age 26, 18% had completed college, and 4% had received an advanced degree; 18% of the study members were now now married, 22% had children, and 79% worked more than 35 hours per week.

We examined the participants' job titles to get a picture of the type of work typical to this age group. The five most common jobs held by Dunedin participants were working as a sales assistant or representative ($n = 86$), secretary and bartender ($n = 23$ each), primary school teacher ($n = 20$), and general clerk ($n = 18$). The variety of jobs was diverse, ranging from senior government policy analyst to slaughterer.

Principal-Components Analysis of Work Variables

As a first step, we performed a principal-components analysis of the occupational attainment, power, and job characteristics variables to reduce the variables to a more meaningful and manageable number. Table 2 shows the component structure of these variables. The scree plot indicated a clear four-factor structure that accounted for 49% of the variance. The first component was an unambiguous *occupational attainment* factor and consisted of the following four items: occupational status, job complexity, education level, earnings, and whether a person got dirty on the job (reversed). The second component consisted of four power items having to do with the ability to hire, fire, give pay raises, supervise people, and supervise many people; we called this factor *resource power*. The third component we called *work autonomy*. It consisted of items reflecting the person's ability to set his or her own hours, control a budget (originally a power item), and whether they were supervised. The final component we called *work stimulation*, and it consisted of the following three items: "I use my skills and abilities at work," "I learn new things at work," and "Others come to me for advice at work." The following two items failed to load high enough on any given factor to be included in the subsequent scales: "Number of times a week a supervisor checks on your work" and "Do you do the same thing over and over on your job?"

Table 3 shows the alpha reliabilities (on the diagonal) and correlations among these work variables and the remaining three scales tapping *work satisfaction*, *work involvement*, and *financial security*. All of the reliabilities were acceptable, especially given the small number of items on several scales (e.g., *financial security*). A number of the relationships should be highlighted. Individuals who were in higher status jobs tended to find their work more stimulating ($r = .30$, $p < .01$). People who had more resource power also experienced more autonomy ($r = .32$, $p < .01$). And finally, work satisfaction was positively correlated with work involvement ($r = .24$, $p < .01$).

Age-18 Personality Predictors of Age-26 Work Outcomes

To test whether adolescent personality traits predicted work experiences in young adulthood, we correlated the age-18 MPQ traits with the age-26 work variables (see Table 4). As we hypothesized, age-18 traits from the NEM superfactor were related to lower levels of occupational attainment, less job satisfaction, and less financial security at age 26. Of the NEM primary traits, age-18 Alienation was most strongly linked to occupational attainment ($r = -.32$, $p < .01$) and financial security ($r = -.23$, $p < .01$), indicating that adolescents who were primed to feel hopeless, deceived, and mistreated by others were likely to end up in less desirable jobs. In addition, Aggression was negatively related to occupational attainment ($r = -.21$, $p < .01$), work satisfaction ($r = -.10$, $p < .01$), and financial security ($r = -.11$, $p < .01$), indicating that aggressive, hostile adolescents were less likely to obtain successful, satisfying jobs.

Table 2
Principal-Components Analysis of the Age-26 Prestige, Power, and Job Condition Variables

Variable	Occupational attainment	Resource power	Work autonomy	Work stimulation
Elley–Irving SES code	**.79**			−.34
Complexity code	**.75**			.31
Highest education level completed	**.72**			
Do you get dirty on the job?	**−.62**			
Pretax hourly wage	**.50**			
Do you have a say in hiring or firing the people that you supervise?		**.80**	−.25	
Do you have a say in giving pay raises and pay cuts?		**.71**	−.34	
Do you supervise the work of other employees?		**.70**		.24
In all, how many people work under you?		**.48**		
Do you have a boss?			**.76**	
Does your boss have a boss?	.21		**.68**	
Can you set your own hours?	.30		**−.58**	
Are you responsible for a budget at work?	.27	.35	**−.51**	
How many times a week does a supervisor check your work?			.22	−.21
Does your job allow you to use your skills and abilities?				**.78**
Does your job help you learn new things that could lead to a better job or to a promotion?				**.74**
Do other people come to you for advice on how to do their work?		.40		**.52**
Do you do the same thing over and over on your job?	−.33			−.38

Note. $N = 910$. Loadings below .20 are not shown. Boldface indicates primary factor loading. SES = socioeconomic status.

Table 3
Correlations Among Age-26 Work Variables

Age-26 work variables	Occ. attain.	Resource power	Work satisfaction	Work involvement	Financial security	Work autonomy	Work stimulation
1. Occupational attainment	(.75)						
2. Resource power	**.12**	(.67)					
3. Work satisfaction	**.20**	**.13**	(.70)				
4. Work commitment	**.12**	.09	**.24**	(.81)			
5. Financial security	**.25**	.06	**−.17**	**.18**	(.73)		
6. Work autonomy	**.15**	**.32**	**.14**	.01	.03	(.63)	
7. Work stimulation	**.30**	**.27**	**−.40**	**.25**	**.19**	**.11**	(.61)

Note. $N = 910$. All correlations above .09 are statistically significant at $p < .01$. All correlations considered small or large in relative magnitude of their effect are shown in boldface (i.e., $r = .10$ or higher). Reliabilities are shown in parentheses. Occ. attain. = occupational attainment.

Our hypotheses that the PEM-Communion superfactor and the constituent traits of Social Closeness and Well-Being would be related to higher levels of occupational attainment, work satisfaction, and financial security were supported. The age-18 PEM-Communion superfactor was positively related to occupational attainment ($r = .19$, $p < .01$), work satisfaction ($r = .15$, $p < .05$), and financial security ($r = .13$, $p < .05$). Adolescents with the capacity for interpersonal warmth, sociability, and happiness were likely to be working in prestigious jobs, to be satisfied with their work, and to feel financially secure. Although we did not hypothesize a relationship, the PEM-Communion traits had the strongest relation to work stimulation compared with the remaining MPQ domains (see Table 4), indicating that warm, sociable people end up in jobs that afford them the opportunity to learn new things and to share this knowledge with others.

Similar to the PEM-Communion superfactor, we hypothesized that the PEM-Agency superfactor and the constituent traits of Social Potency and Achievement would be linked to occupational attainment. We also hypothesized that traits from the PEM-Agency domain would be positively related to resource power. Both of these hypotheses were supported. Social Potency was positively related to occupational attainment ($r = .20$, $p < .01$) and resource power ($r = .11$, $p < .01$). In addition, the PEM-Agency superfactor was positively related to work autonomy ($r = .13$, $p < .01$) and work stimulation ($r = .17$, $p < .05$). Of all the adolescent personality traits assessed, the Agency traits were the best predictors of resource power and work autonomy, which reflects the importance of the capacity for social dominance to the acquisition of leadership positions that contain some measure of decision latitude.

Finally, we hypothesized that adolescent traits from the Constraint domain would be positively related to status attainment, work satisfaction and involvement, and financial security. Consistent with our expectations, the Constraint superfactor was positively associated with occupational attainment ($r = .10$, $p < .01$), work satisfaction ($r = .10$, $p < .01$), work involvement ($r = .18$, $p < .01$), and financial security ($r = .15$, $p < .01$). Furthermore, Traditionalism was the best overall predictor of work involvement ($r = .21$, $p < .01$). This indicates that adolescents who were more

Table 4
Age-18 Personality Predictors of Age-26 Work Variables

	Age-26 work variables						
Age-18 MPQ scores	Occ. attain.	Resource power	Work satisfaction	Work involvement	Financial security	Work autonomy	Work stimulation
Negative emotionality	**−.27**	−.05	**−.13**	−.01	**−.22**	−.04	−.04
Stress Reaction	**−.10**	−.09	−.09	.04	**−.16**	−.06	−.07
Aggression	**−.21**	.02	**−.10**	−.07	**−.11**	.01	.02
Alienation	**−.32**	−.02	**−.09**	−.01	**−.23**	−.02	−.04
PEM-Communion	**.19**	.08	**.15**	.08	**.13**	.06	**.15**
Social Closeness	**.10**	−.01	**.12**	.08	**.12**	−.01	**.10**
Well Being	.08	.09	**.15**	.07	**.11**	.06	**.16**
PEM-Agency	**.16**	**.14**	**.11**	**.13**	.06	**.13**	**.17**
Social Potency	**.20**	**.11**	.04	−.01	.01	**.11**	.05
Achievement	.07	.09	.06	**.16**	.03	.09	**.14**
Constraint	**.10**	−.02	**.10**	**.18**	**.15**	−.02	.07
Self-Control	**.15**	.00	.07	**.13**	**.17**	.02	.04
Harm Avoidance	−.02	−.06	.07	.07	.04	−.04	.01
Traditionalism	.08	.01	.08	**.21**	**.10**	.03	**.12**

Note. $N = 859$. All correlations above .09 are statistically significant at $p < .01$. All correlations considered small or large in relative magnitude of their effect are shown in boldface (i.e., $r = .10$ or higher). MPQ = Multidimensional Personality Questionnaire; Occ. attain. = occupational attainment; PEM-Communion = Communal Positive Emotionality; PEM-Agency = Agentic Positive Emotionality.

conventional and self-controlled also tended to be in higher status positions, to be more satisfied with their work, to make stronger emotional commitments to their work, and to feel financially secure.

With regard to sex differences, we used moderated multiple regression to test whether age-18 personality traits predicted age-26 work experiences differently for men and women. We found statistically significant interaction effects in only 7 instances out of a possible 98 examined. Despite adequate power to detect statistical interactions of moderate effect size, we found no more such effects than expected by chance.

Work Experiences and Change in Personality Traits From Age 18 to Age 26

We used hierarchical multiple regression to test whether work experiences in young adulthood were related to personality changes. Each relevant age-18 MPQ scale was entered into the equation on the first step followed by the relevant work variable on the second step. For example, to test the association between occupational attainment at age 26 and change in Social Potency from age 18 to age 26, we first entered age-18 Social Potency to control for the consistent portion of Social Potency over time. Then we entered age-26 occupational attainment on the second step, which tests the association between occupational attainment and change in Social Potency from age 18 to age 26. Table 5 shows beta weights describing the relationship between work experiences and change in personality traits and the same relationships (in parentheses) after controlling for the remaining work variables.

We hypothesized that occupational attainment would be related to changes in NEM, PEM-Communion, PEM-Agency, and Constraint. With the exception of Constraint, our expectations were supported. Table 5 shows that high-status attainment in young adulthood was associated with significant decreases in NEM ($\beta = -.11$, $p < .01$), and with significant increases in PEM-Communion ($\beta = .16$, $p < .01$) and PEM-Agency ($\beta = .13$, $p < .01$). These findings indicate that people who acquired higher status work in young adulthood became less anxious and self-defeating, happier, and more self-confident.

We hypothesized that the acquisition of power would be related to increases in PEM-Agency. Consistent with our expectations, resource power at age 26 was associated with increases in both Social Potency ($\beta = .20$, $p < .01$) and Achievement ($\beta = .20$, $p < .01$). Unexpectedly, we found that the acquisition of greater levels of resource power was associated with increases in PEM-Communion. Specifically age-26 resource power was associated with increases in Well-Being ($\beta = .11$, $p < .01$). Overall, acquiring higher levels of resource power in young adulthood was associated with becoming more socially dominant, hard working, and happier in the transition from adolescence to young adulthood.

On the basis of previous research, we hypothesized that work satisfaction would be related to decreases in NEM. This hypothesis was also confirmed. Individuals who acquired more satisfying work by age 26 were more likely to decrease in NEM from age 18 to age 26. The relationship was concentrated on Stress Reaction, such that people who were more satisfied in their work decreased on Stress Reaction over time ($\beta = -.12$, $p < .01$). Of interest, work satisfaction also was related to changes in traits from the PEM domain. Specifically, work satisfaction was associated with increases in Well-Being ($\beta = .12$, $p < .01$) and Achievement ($\beta = .11$, $p < .01$), though we do not consider these findings as reliable as they became nonsignificant when the other work variables were controlled. In general, men and women in more satisfying work became less anxious and less prone to stress.

Table 5
Relationship Between Work Experiences and Change in Personality

Change in personality from age 18 to age 26	Age-26 work variables						
	Occ. attain.	Resource power	Work satisfaction	Work involvement	Financial security	Work autonomy	Work stimulation
Negative emotionality	**−.11** (−.08)	.02 (.02)	**−.11** (−.09)	−.03 (.03)	**−.19 (−.18)**	.07 (.06)	−.05 (.05)
Stress Reaction	−.05 (.00)	.00 (−.01)	**−.12 (−.11)**	.01 (.06)	**−.18 (−.19)**	.04 (.04)	−.02 (.05)
Aggression	−.09 (−.08)	.02 (.03)	−.04 (−.02)	−.06 (−.03)	−.07 (−.05)	.03 (.01)	−.04 (.02)
Alienation	**−.17 (−.16)**	.02 (.01)	−.09 (−.05)	−.04 (.03)	**−.17 (−.15)**	**.10 (.10)**	−.08 (.03)
PEM-Communion	**.16 (.11)**	**.10** (.07)	.09 (.03)	.09 (.05)	**.11** (.08)	.06 (.02)	**.11** (.01)
Social Closeness	**.14 (.13)**	−.01 (−.02)	.07 (.03)	.07 (.05)	**.10** (.03)	−.03 (−.06)	.06 (−.03)
Well Being	.08 (.01)	**.11** (.06)	**.12** (.07)	.07 (.03)	**.14 (.11)**	**.11** (.07)	**.12** (.05)
PEM-Agency	**.13** (.06)	**.23 (.17)**	**.12** (−.01)	**.20 (.16)**	.09 (.04)	**.13** (.07)	**.18** (.06)
Social Potency	**.11** (.08)	**.20 (.16)**	.03 (−.03)	.04 (.02)	.03 (.00)	**.11** (.05)	**.11** (.04)
Achievement	**.10** (.04)	**.20 (.14)**	**.11** (.00)	**.27 (.24)**	.07 (−.01)	**.10** (.05)	**.17** (.05)
Constraint	.03 (.00)	−.01 (−.04)	.08 (.04)	**.12 (.10)**	.09 (.07)	−.02 (−.01)	.07 (.02)
Self-Control	.08 (.04)	.01 (−.01)	.06 (.03)	.09 (.06)	**.13 (.10)**	.00 (.00)	.05 (.00)
Harm Avoidance	.07 (.05)	−.05 (−.07)	.06 (.04)	.06 (.05)	.04 (.02)	−.01 (−.01)	.04 (.01)
Traditionalism	−.06 (**−.11**)	.02 (.00)	.08 (.03)	**.19 (.18)**	.07 (.05)	−.03 (−.02)	.09 (.05)

Note. $N = 861$ for analyses with occupational attainment, and $N = 875$ for remaining variables. Coefficients are beta weights showing the relationship between work factors and age-26 personality traits holding constant the effect of age-18 personality traits on age-26 personality traits. All beta weights above .09 are statistically significant at $p < .01$. All correlations considered small or larger in relative magnitude of their effect are shown in boldface (i.e., $r = .10$ or higher). Coefficients in parentheses show the effect of a work variable holding constant all other work variables. Occ. attain. = occupational attainment; PEM-Communion = Communal Positive Emotionality; PEM-Agency = Agentic Positive Emotionality.

We hypothesized that work involvement would be related to changes in Constraint and NEM. This hypothesis was only partially supported. Work involvement was not related to NEM, but it was related to changes in Constraint. Especially striking was the relatively strong relationship between work involvement and increases in Traditionalism ($\beta = .19$, $p < .01$). Unexpectedly, work involvement was related to increases in PEM-Agency, especially Achievement ($\beta = .27$, $p < .01$). This finding is less surprising if one considers Achievement to be at least partially related to the Big Five trait of Conscientiousness. Overall, men and women who made a strong cognitive and emotional commitment to their work became more hard working and supportive of conventional social norms over time.

On the basis of the assumption that financial security is a key ingredient in making the psychological transition to adulthood, and subsequently maturity, we hypothesized that higher levels of financial security would be related to changes in NEM, Social Closeness, and Constraint. The findings were consistent with our expectations. People who attained financial security were more likely to decrease in Stress Reaction ($\beta = -.18$, $p < .01$) and Alienation ($\beta = -.17$, $p < .01$). In addition, these individuals were more likely to increase in Social Closeness ($\beta = .10$, $p < .01$) and Control ($\beta = .13$, $p < .01$).

We did not make hypotheses for work autonomy or stimulation. Work autonomy, or the opportunity and ability to work independently, was associated with increases in Well-Being ($\beta = .11$, $p < .01$) and the PEM-Agency traits. Surprisingly, work autonomy was also associated with increases in Alienation ($\beta = .10$, $p < .01$). Work stimulation was primarily associated with changes in PEM, especially Well-Being ($\beta = .12$, $p < .01$) and Achievement ($\beta = .17$, $p < .01$). It should be noted that only one of the statistically significant relationships between work autonomy and work stimulation and change in personality traits remained statistically significant when the remaining complement of work variables was controlled. This indicates that the effects of work autonomy and stimulation may be mediated by these other work variables.

The personality changes reported in Table 5 should be interpreted in the context of the normative developmental trends for each personality trait (e.g., Roberts et al., 2002). To illustrate this point, we selected three hypothesized relationships, divided the relevant work variables into either three or four categories (ranging from low to high) and computed the mean-level changes in personality traits for each category across time.[2] For example, Figure 1 shows the relationship between occupational attainment and changes in PEM-Communion for which we hypothesized a positive relationship. As can be seen by the overall pattern, there was no mean-level developmental change in PEM-Communion from age 18 to age 26, and the interpretation of the positive correlation between status attainment and change in PEM-Communion (in Table 5) is straightforward: Young adults who attained less desirable jobs decreased in PEM-Communion over time whereas young adults who attained high-status jobs increased in PEM-Communion over time. In contrast, Figure 2 shows the hypothesized relationship between financial security at age 26 and changes in NEM from age 18 to age 26. As can be seen by the overall pattern, it was normative for young adults to decrease in NEM over time. Achieving financial security is associated with an accelerated decline. The NEM of young adults who secured financial security decreased a great deal from adolescence to young adulthood, whereas the NEM of young adults who did not secure financial security decreased significantly less. Finally, Figure 3 shows the hypothesized relationship between different levels of resource power and changes in PEM-Agency. As can be seen, it was normative for the sample to increase in PEM-Agency. Moreover, young adults who assumed jobs with resource power demonstrated a faster rate of increase on PEM-Agency relative to young adults who assumed jobs with less resource power.

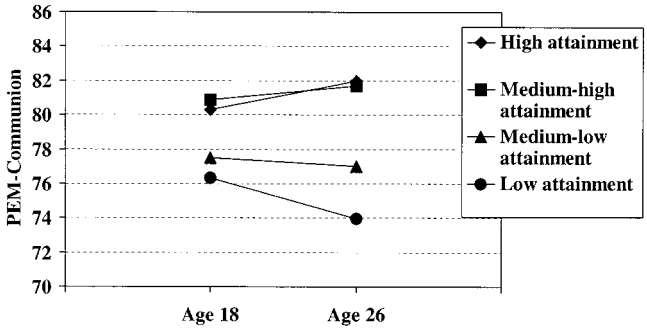

Figure 1. Changes in Communal Positive Emotionality (PEM-Communion) at different levels of occupational attainment.

Once again, we found only a small number of interaction effects when examining sex differences in the association between work experiences and changes in personality. Of the 98 interaction effects tested, only 6 were significant at conventional levels.

Were the Relations Among Personality Traits and Work Experiences Corresponsive?

We hypothesized that the personality traits that were predictive of specific work experiences would be the traits to change in relation to those same work experiences. To test this hypothesis, we conducted two tests. First, we simply counted the number of associations in Table 4 that showed either a corresponding null or a corresponding statistically significant effect in Table 5. Of the 98 predictive coefficients on Table 4, 81 change coefficients in Table 5 demonstrated a perfect correspondence (83%), which was significantly different than chance overlap in findings, $\chi^2(1, N = 98) = 41.8$, $p < .01$. A second way to quantify the correspondence between predictive associations and change coefficients is to correlate the columns of Table 4 with the columns of Table 5 after the appropriate *z*-transformation of the correlation coefficients. Across the 98 comparisons, the correlation was .87, $p < .05$. Therefore, we found strong evidence that the personality traits that predict certain work outcomes are the traits that also change in relation to those same work experiences.

[2] The reason the money troubles variable was divided into three, rather than four, categories was that 50% of the sample reported no problems with money. We assigned these individuals to the "low" category and then divided the remaining sample into the medium and high money-problems categories.

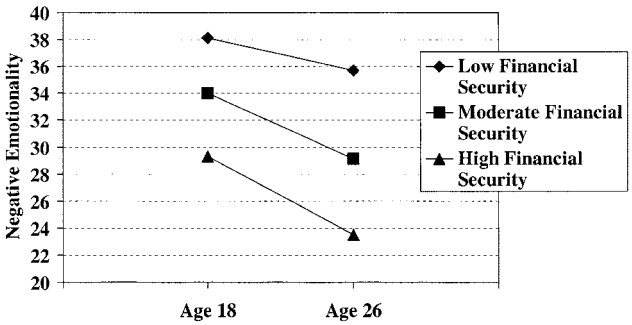

Figure 2. Changes in Negative Emotionality at different levels of financial security.

Discussion

This study shows that adolescent personality traits, assessed at age 18, predicted the nature of young adults' work experiences over the next 8 years. In turn, these same work experiences predicted corresponding changes in personality traits over the same developmental period. These findings add to a growing body of longitudinal studies that have investigated personality and work experiences in young adulthood (e.g., Mortimer & Lorence, 1979) and in midlife (e.g., Roberts, 1997). The present study is distinguished by its large, representative sample of men and women, its comprehensive assessment of personality traits, and its multidimensional assessment of work experiences. It also has important limitations. First, we studied only one cohort in one part of the world. Studies of single birth cohorts do not allow direct tests of transhistorical generalization, and our results must be compared with those of previous and future longitudinal studies. It should be noted, however, that this study revealed similar findings to those reported in studies carried out on older birth cohorts (e.g., Brousseau & Prince, 1981; Elder, 1969; Roberts, 1997). Second, the current study was limited by its exclusive reliance on self-report measures of personality and work experiences. Future studies should use multimethod assessments and draw on information from multiple sources to establish firmer conclusions about the nature of the relations between personality change and work experiences. Third, we only studied two time points, which attenuates the reliability of our assessment of personality change. This makes our findings all the more striking, as we may have underestimated the magnitude of the relations between personality change and work experiences. It is quite possible that with multiple assessments of personality and the use of more reliable techniques for estimating individual differences in change, such as growth modeling, our findings will prove more robust.

The developmental context of the study is another factor that must be considered when interpreting the results. Consistent with the idea that emerging adulthood is a time of flux and change, the majority of the sample transitioned from compulsory education and their family of origin at age 18 to a fully independent life at age 26. By age 26, many of the participants had already established the basic structures of adulthood in the form of full-time employment, marriage or a marriage-like relationship, and children. Nonetheless, the majority of the participants had yet to marry and have children. Also, given the nature of the work that the Dunedin participants were doing at age 26 (e.g., sales, clerical, retail), we can assume that these are not the jobs that these individuals will occupy for the majority of their adult life. Roberts (1997) argued that work experiences in young adulthood might not have the same impact on personality development as experiences in midlife because of the provisional nature of work experiences in young adulthood. Work in young adulthood is not as well integrated into a person's identity, and therefore work experiences may not impart as much change in personality as work experiences that come later in life, which may be more central to a person's self-definition. This may be one reason why the modal effect size in the study, for both predictive and change relationships, was modest. A second developmental consideration is that the patterns of relationships between personality and work found in young adulthood may change as the sample ages. These developmental considerations will be tested in future waves of the Dunedin Study.

Predictive Relationships Between Personality Traits at Age 18 and Work Outcomes at Age 26

The present study confirms that personality traits assessed in late adolescence are useful in understanding young adults' subsequent work experiences (Helson et al., 1989). The traits within the domain of NEM and PEM were most important for predicting work outcomes. Adolescents who scored high on NEM experienced a turbulent and unsuccessful transition into the world of work. By age 26, they occupied lower prestige jobs, were less satisfied with their jobs, and reported difficulties paying bills and making ends meet. The latter finding is significant developmentally because being financially secure is an important hurdle to leap in order to see oneself as an adult (Arnett, 2000). Alienated and hostile adolescents appear trapped in a self-fulfilling and vicious cycle. Their personality dispositions lead them to work experiences that undermine their ability to make a successful and rewarding transition into the adult world.

Adolescents who scored high on the Communal component of PEM had the opposite experience. By age 26, according to multiple measures, participants achieved work success, experienced fewer financial problems, and were happier in their jobs. They also acquired more stimulating work by age 26. These findings are interesting because PEM-Communion captures the interpersonally pleasing combination of sociability and positive affect—or nice-

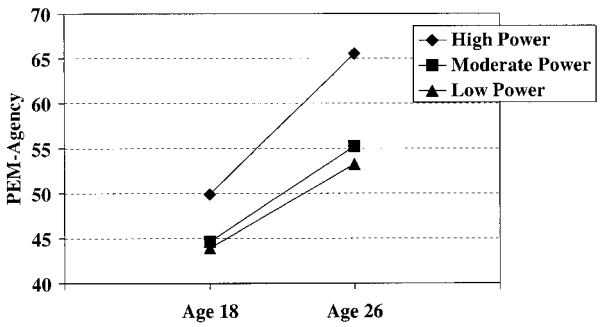

Figure 3. Changes in Agentic Positive Emotionality (PEM-Agency) at different levels of resource power.

ness. It appears that, at least in the case of young New Zealanders, nice men and women achieve more in their early careers than others. The predictive correlates of PEM-Agency were very similar to PEM-Communion, with the following exception: By age 26, adolescents who scored high on PEM-Agency also achieved more resource power. As they entered the world of work, adolescents who were forceful and decisive, fond of leadership roles, and willing to work hard rose to positions where they had direct (managerial or supervisory) control over other people.

Adolescents who scored high on traits from the domain of Constraint were more likely than other adolescents to achieve occupational attainment, to be satisfied with their job, to evidence higher levels of work commitment, and to be financially independent. These findings are consistent with previous research demonstrating the importance of traits from the domain of Conscientiousness to work outcomes (Judge et al., 1999). The strongest pattern of relations was with work involvement, indicating that conventional adolescents with good impulse control make stronger emotional and psychological commitments to their work than other adolescents. Although pervasive, traits from the domain of Constraint were not the best predictors of objective or subjective indicators of success, which is surprising given that previous research has shown that personality traits from the domain of Conscientiousness are widely considered the most important noncognitive predictors of work performance (Judge et al., 1999). Our weaker findings may reflect the nature of the primary traits that make up the MPQ Constraint superfactor, which differs substantially from other measures of Conscientiousness. The MPQ Constraint domain does not include facets of Conscientiousness, such as industriousness and organization, found in more comprehensive models of Conscientiousness (Goldberg, 1999). Alternatively, it could be that, whereas NEM and PEM play a more significant role in determining the nature of work experiences in early adulthood, individual differences in Constraint play a more important role in determining work outcomes later in life.

The predictive associations linking NEM, PEM, and Constraint in adolescence to work experiences in adulthood beg the question: How? There are at least three candidate processes that conform to the mechanisms outlined in the attraction–selection–attrition model (Schneider, Smith, Taylor, & Fleenor, 1998). First, it is possible that the personality → work associations reflect "attraction" effects, or "active niche-picking" (Scarr & McCartney, 1983), whereby people actively choose jobs whose qualities are concordant with their own personalities (Ickes, Snyder, & Garcia, 1997). Indirect evidence for this process comes from the fact that goals and interests partially overlap with personality traits (Gottfredson, Jones, & Holland, 1993; Roberts & Robins, 2000), indicating that the work paths that people choose are, in part, a reflection of their personality traits as well as their interests. Second, it is possible that the personality → work associations reflect selection processes, whereby people are selectively recruited into jobs on the basis of their personality characteristics (e.g., employers preferentially give opportunities to nice and assertive applicants). Third, it is possible that personality → work associations emerge as consequences of "attrition" or "deselection pressures," whereby people leave jobs that do not fit with their personality or are released from jobs because of their personality (e.g., adolescents high in Social Potency attain more in a hierarchical workplace because they handle interpersonal strains with alacrity whereas aggressive adolescents attain less because they lash out at coworkers). Obviously, these three processes are not mutually exclusive. Moreover, these processes unfold gradually over time, leading to the prediction that the associations we observed between adolescent personality at age-18 and work experiences at age-26 should become stronger with the passage of time.

Personality Change and Work Experiences

The pattern of associations between work experiences and change in personality was strongest for NEM and PEM traits. Young adults decreased faster in NEM if they were in higher status jobs that were more satisfying and if they achieved financial security. Similarly, young adults increased in PEM-Communion if they were in higher status, more satisfying jobs that provided enough money to make ends meet. The findings were similar for PEM-Agency, except that increases in Agency were also associated with experiencing more resource power and greater work involvement. Young adults who gained power became more confident and harder working. Finally, young adults increased on facets of Constraint if they were more involved in their jobs and financially secure.

Four features of these findings deserve comment. First, the findings suggest that work experiences have the potential to modify basic personality dispositions. We discovered that work experiences were associated with personality changes in young adulthood, even after controlling for adolescents' prework personalities. In fact, the modal effect size of the association between work experiences and personality change was approximately equal to the predictive association from prework personality to work experiences. These findings have implications for theories that are used either explicitly or implicitly, in contemporary personality research. For example, the five-factor model of personality (McCrae & Costa, 1999) explicitly omits any effect of life experiences on personality traits. In this model, it is assumed that traits are basic tendencies that are not affected by the environment or by life experiences. Rather, traits act on more microlevel psychological phenomena, such as well-being, and on role-based accomplishments like job satisfaction. Consistent with the five-factor model, our research demonstrates that traits are real in their consequences and predict objective, real-world phenomena in the world of work. However, our research also shows that trait change is associated with specific life experiences. The latter finding is distinctly important as it suggests that the perspective that traits do not change in response to life experiences is developmentally incomplete. This finding does not disconfirm the entire five-factor model. It only recommends a simple revision to the model in which role-based experiences are allowed to feed back on traits, acknowledging that personality traits do change and that the change comes about in part through interactions with one's environment, a key feature of alternative theoretical models of personality and personality development (see Baltes, Lindenberger, & Staudinger, 1999; Hogan & Roberts, 2000; Roberts & Caspi, in press).

Second, the findings illustrate that typical approaches to studying personality continuity and change may miss much of the story of development. Most studies of personality continuity and change focus either on rank-order consistency (as reflected in test–retest,

or stability coefficients) or on normative, developmental changes (as reflected in changing mean levels over time). Previous studies have demonstrated that there are reliable individual differences in personality change (e.g., Roberts et al., 2001; Robins et al., 2001). In the present article, we have shown that these individual differences in change can be accounted for, in part, by experiences in the paid labor market.

Third, these findings point to the fact that work experiences play a part in determining the patterns of normative changes demonstrated across many longitudinal studies. Previous research has shown that, during the transition to adulthood, individuals increase in traits associated with PEM-Agency, decrease in traits associated with Neuroticism or NEM, and increase in traits associated with Conscientiousness or Constraint (Helson & Kwan, 2000; Roberts et al., in press). These normative changes can be thought to result from species-specific patterns that arise through genetic mechanisms (McCrae et al., 2000), or to arise because of a set of shared, normative experiences that most people go through at specific ages, such as establishing oneself in a career and creating a family in young adulthood. The present findings point to the possibility that some of the personality change that appears to be normative in longitudinal studies of the natural history of personality development arises, in part, through work experiences. Coupled with findings from the domain of marriage and intimate relationships (e.g., Robins, Caspi, & Moffitt, in press), which show that continuous attachment to a partner is associated with increases in Constraint, it is possible that these normative life experiences are responsible for a significant proportion of normative change in personality during the transition to adulthood. This hypothesis merits further scrutiny in ongoing and in future longitudinal studies.

Finally, the present findings demonstrate that the predictive and change relations between personality traits and work experiences were corresponsive: The traits that "selected" people into specific work experiences, whatever the process, were the same traits that changed in response to those same work experiences. We hypothesized that this is the most probable type of personality change that occurs over the life course (Roberts & Caspi, in press). That is, life experiences do not impinge themselves on people in a random fashion causing widespread transformation in personality structure. Rather, the traits that people already possess will be deepened and elaborated by trait-correlated experiences. Work experiences may alter personality; they make us more of who we already are.

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