

Career Progression of Young Adults: a Longitudinal Study on the Effects of Personality*

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SUMMARY: *The paper examines whether extraversion, neuroticism, need for support, need achievement, impulsivity, disinhibition, and need for change affect the course of employment careers. Such effects may be present via either of two ways; via turnover behaviour, assuming that people will change jobs only when they are able to improve their work situation, or via job performance. Both of these variables have previously been shown to be related to these personality variables, but are they also related to career progression? A sample of 580 young Dutch adults was interviewed in 1987 and in 1991. Using regression analysis a model is tested, including time one and time two-income, having changed jobs at least once during the observation period, having a steady appointment at time one/time two, level of education, labour market experience, and the personality measures mentioned above. Income is taken as indicative of the employment career, in that a high income is strongly associated with a good job. Career progression is operationalized as time-two income after controlling for the effects of time-one income, i.e. a variable that is significantly related to time-two income after holding the effect of time-one income constant is considered to be affecting the progression of the employment career.*

The results indicate that the model is largely tenable; personality variables clearly affect the course of employment careers; as 5 out of 7 personality measures (respectively need for change, disinhibition, need for support, need achievement, and extraversion) are significantly related to either career progression or any of the causally

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preceding variables; time-one income, job satisfaction, having changed jobs, or having a steady job at time two. Impulsivity nor neuroticism affect career progression in any significant way.

1. Introduction

Over the last few decades, much research has addressed the impact of personality traits such as neuroticism, and extraversion, but also motivational and attitudinal variables, on the course of employment careers. The focus has often been on the causal chain linking personality via job satisfaction to (voluntary) turnover (cf. Arvey, Carter & Buerkley, 1991; Barrick & Mount, 1991; Lee & Mowday, 1987; Michaels & Spector, 1982; Mobley, Griffeth, Hand & Meglino, 1979; Muchinsky & Tuttle, 1979; Porter & Steers, 1973; Taris, Heesink, Feij, Van der Velde & Van Gastel, 1991). The evidence collected suggests that person-related factors indeed influence the work career (in the sense of voluntary turnover), but that the effects of the various personality measures are relatively minor in comparison with other variables, for instance, work characteristics such as task complicity, perceived work load and task variety. Compare for instance the results of Arvey et al. (1991), who estimate that only 10-30% of the variance in job satisfaction is directly accounted for by person-related factors; the remainder is presumed to be explained by other (work) variables, and by person-work interaction effects. Some authors (such as Davis-Blake & Pfeffer, 1989) even hold the rather extreme stance that personality characteristics do really not matter in determining job-related behaviour.

Career progression in the wider sense - not limited to voluntary turnover - has been studied considerably less often in psychology. Traditionally, the study of the development of careers in work and organizational psychology has been the domain of human resources development; no explanatory variables promoting and/or hindering career progression are given (cf. Boerlijst, 1984; Boerlijst & Aite-Peña, 1990; Hall, 1986). This changed by the end of the seventies, when attention was given to the development of stage models of the employment career (for instance Hall, 1976; Nicholson & West, 1988; Schein, 1978; Boerlijst, 1984, offers an overview of several of these stage models). However, an important drawback of these models is that they represent largely heuristic, rather than empirically testable representations of the employment career. Additionally, they often address not so much the development of the career itself, but the development of attitudes towards work during the career. As such, no directly applicable theories concerning the development of employment careers are available in psychology. However, many studies have shown that personality traits such as extraversion, need achievement and neuroticism can be related to work outcomes such as job performance and pay (consider for example the meta-analyses of Barrick & Mount, 1991, and Schmitt, Gooding, Noe & Kirsch, 1984; see also Heesink, 1992, p. 52-54; Tett, Jackson &

Rothstein, 1989; Van den Berg, 1992). As well-performing employees are likely to experience income increases and/or promotions (cf. Schmitt et al., 1984), this line of research is certainly of relevance here.

The present paper represents a modest attempt to show that personality variables affect the course of employment career progression, either via turnover or via job performance. Though the link between personality traits and, attitudes on the one hand and job performance and turnover on the other has been studied extensively, we know of no studies that examine the *progression* of the employment career.

Additionally, this study aims at clarifying the process of job attainment among young adults who have only recently started their occupational career. It is assumed that a sample of starters offers relatively good opportunities to detect effects of personality effects on the development of their career in comparison with samples of considerably more experienced workers, for the career of the latter will often already have unfolded itself fully. Hence, the differences between subjects will often be almost constant during the observation period, making it difficult to observe personality effects. It should be noted that there is some reason to suspect that the process operating for young adults will be different from the causal mechanism as has been constructed for more experienced workers. The latter differ from starters on the labor market in that they have ample previous labor market experiences to compare the quality of their current job with. The younger employees have less experience, and may not be able to contrast their current job with previous experiences. In many models comparing the expected benefits of alternative work situations with the present job is considered to be an important predictor of turnover, via both job satisfaction and organizational commitment (among others, Mobley et al., 1979; Wanous, 1980). Consequently, the role of the various variables in determining the turnover process - and, indeed, the role of turnover itself, in affecting the course of employment careers - may be different to young adults than to more experienced employees (cf.: Andrisani, 1978, p: 39; Feldman, 1981; Taris, Van der Velde, Feij & Van Gastel, in press). Hence, a second goal of this paper is to study the link between personality and the progression of employment careers especially among young adults, rather than using a sample of experienced workers; this viewpoint, however, may hinder the generalizability of the results to a broader population.

In the remainder of this Section the theory and hypotheses to be tested will be discussed.

Theory: the process of career progression among young adults

Voluntary turnover. A large part of the literature addressing career development has discussed voluntary turnover behaviour. The often-used model of

Mobley, Griffeth, Hand & Meglino (1979) states that personality variables only serve as determinants of job satisfaction. Job satisfaction in turn affects the actions taken to secure another job; these may, eventually, lead to voluntary turnover. Parts of this model have extensively been tested. For instance, Miller, Katerberg & Hulin (1979) examined the relation between job satisfaction and turnover, and found this part of the model to be tenable; this conclusion complies with the results of Arnold & Feldman (1982), Taris et al. (1991), and Ward (1988). Van den Berg (1992) and Van den Berg & Feij (1991) show that personality variables as well as work-related variables affect the intention to quit the job, while Lee & Mowday (1987) show that this intention is a reliable indicator of actual turnover behaviour. Taris et al. (1991) have tested the model almost integrally; their results indicate that personality variables are indirectly of importance in determining voluntary turnover, via job satisfaction and the intention to quit the job. It may be expected that people do only quit voluntarily if they have a better alternative to their current job, for example in terms of job prestige, job security (having a permanent appointment versus a temporary contract) and/or pay. Hence, quitting a job would be positively associated with job progression.

Personality and performance. The second line of research of relevance here concerns studies about the validity of measures of personality traits. In personnel selection, often specific personality traits are measured; it is assumed that these traits affect job performance. The validity of this assumption has often been investigated, with somewhat mixed results. However, recently: some major literature reviews using advanced statistical methodology have appeared, yielding rather good insight in the degree to which personality is of importance in job performance. These will be discussed in short below.

The validity of measures of various personality traits were examined by Barrick & Mount (1991), Schmitt et al. (1984) and Tett, Jackson & Rothstein (1991). An important difficulty in this line of research is that personality characteristics may be of varying importance in explaining the performance of subjects in different jobs. For example, social extraversion may be important in predicting the performance of people in jobs where interaction with other people is significant (i.e., salespeople, managers); in other kinds of jobs, this feature may be of only minor importance. As Tett et al. (1991) state, "It is unreasonable to expect validities of personality measures to generalize across different jobs and settings..." (p. 704). This suggests that it is impossible to investigate the impact of various personality characteristics on job performance (or any other criterion variable, such as career progression), when no controls for the requirements of; the job are incorporated in the analysis. Only jobs which have an about equal functional structure may be pooled. Only then can the effects of various personality traits adequately be investigated.

Of course, many different personality traits which may be of varying importance for job performance can be distinguished. However, recent research has suggested that many of these, if not all, can be seen to measure one of five major personality dimensions; following Digman (1990), these are respectively extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience. Traits frequently being associated with *extraversion* are being sociable, assertive, talkative, and active. Hogan (1986) states that this dimension consists of two components, respectively ambition and sociability. In the current paper the emphasis is on sociability only. The analyses of Barrick & Mount (1991) show that this dimension is especially significant in jobs where interaction with people is of major importance, such as salespeople and managerial jobs. Additionally, Tuma (1985) shows that verbal ability affects the type of changes met in a career: the verbally able experience rather more positive transitions than the others. *Emotional stability* is also often referred to as simply stability or its opposite pole, emotional liability or neuroticism. Common traits associated with emotional liability are being insecure, depressed, angry, and worried. It is assumed that emotionally unstable people will generally perform worse than emotionally stable persons; the analyses of Barrick & Mount (1991) give some evidence for this hypothesis. *Agreeableness* is also often labelled friendliness or liability. People scoring high on this dimension are courteous, flexible, tolerant and cooperative. Again, this dimension would be of special importance in case the job contains much interaction with people. There is some disagreement concerning the essence of the fourth dimension, *conscientiousness*. Some authors assert that conscientiousness reflects dependability, being careful, thorough, responsible and organized (cf. Botwin & Buss, 1989; John, 1989). However, the evidence cited by Digman (1990) suggests that volitional aspects such as hardworking and being achievement-oriented may be added to this list. The last dimension, *openness to experience*, has proved to be the most difficult to identify. Digman (1990) states that traits associated with this dimension include imaginativity, being cultured, original, broad-minded, and artistically sensitive. It has shown to be related to various criterion variables, for instance turnover. Additionally, it is assumed to affect job performance via the will to follow extra job training (Barrick & Mount, 1991). Hence, this dimension should be of about equal importance for all jobs.

Variables and hypotheses to be tested

On the basis of the theoretical considerations discussed above, a model which relates personality variables and work outcomes was constructed. This model was tested using data collected at two points in time, which were separated by a four-year period (see Method). The constituent (clusters of) variables are described below, together with the hypotheses to be tested.

-Time-one and time-two, income. Career progression is conceptualized as time-two income, after time-one income is controlled for. If all subjects experience about the same career progression in time, the order of the subjects when rated on the basis of their income should be about the same for every occasion, yielding a high correlation between time one and time two-income. This correlation, however, will presumably not be perfect; hence, some of the variance in time-two income may be accounted for by other explanatory variables. Hence, variables are considered to affect career progression when they have a significant effect on time-two income, independently of the direct effect of time-one income and possible other effects on time-one income.

Income, rather than job prestige, was chosen for two reasons. First, as it is assumed that people will often experience career progression within an organization, it is likely that their job title (for example, "manager") will not change, even when career progression is being made. Hence, no change in prestige will be detected, even when a promotion has occurred. However, such a promotion will undoubtedly be reflected in a higher income.

Second, income is a presumably less culture-bound concept than job prestige. Comparable jobs may have a different prestige in different countries. In this respect, income is a more generalizable concept than job prestige: though wage levels may vary between countries, within these countries income can always be used to compare subjects; a high wage remains a high wage, whereas high-prestige jobs in one country may be medium-prestige jobs in another.

-Steady appointment. Measures concerning the steadiness of the job for both time points are also included in the study. It is known that temporary jobs are associated with lower pay and relatively bad career prospects (cf. De Gijssel, Muysken & Wolfs, 1991). Hence, having a steady appointment should be positively associated with income. Additionally, it is expected that people having a steady appointment will change jobs less often than people having a temporary job. The association between changing jobs and having a steady job at time two will be mediated by time-one steady appointment: Changing jobs will only affect having a steady job at time two when the subject did not already have such an appointment.

-Turnover. It is hypothesized that people who change jobs are able to realize an improvement of their work conditions, for example, they are able to realize an important increase in income, better working conditions, a permanent instead of a temporary appointment, et cetera. Hence, voluntary turnover should be positively related to time-two income, all other variables being equal. Additionally, turnover may affect having a steady appointment at time two.

-Job satisfaction. This variable has often been shown to be negatively related to turnover (cf. Mobley et al. 1979), in that a low satisfaction increases the intention to leave a specific job. The satisfaction with a specific job will also be positively related to time-one income.

-Level of education. Many theories stress the importance of education in determining income. Obviously, higher-educated people tend to have better jobs than people with a low education, as many of the better jobs require a relatively high education. Additionally, education has been shown to be related to job satisfaction and turnover; that is, higher educated change jobs more often than others and are less satisfied with their job (cf. Mobley et al., 1979; Taris et al., 1991).

From a psychological point of view may be mentioned that level of education is strongly correlated with cognitive abilities; these, in turn, have been shown to be an important determinant of job performance, regardless of the setting and job in question (Schmidt, Hunter, & Caplan, 1981; Schmidt, Hunter, Pearlman & Shane, 1979). Hence, level of education may be an important determinant of job progression, in that higher-educated would experience more progression than others.

Personality variables. As stated above, many different relevant personality variables may be studied. Often these may be fit into the "big five" conceptual framework addressed earlier. In this study, several personality traits are included; however, as the study was not primarily intended to test the validity of the big five-framework, the personality variables that were included in the study do not cover all five dimensions extensively and conclusively. Available in this study are social extraversion, neuroticism, need for change, disinhibition, impulsivity, need achievement, and need for support. Below the hypothesized relations between these variables and other variables will be made explicit; the big five will be used as a frame of reference here.

As stated above, *extraversion* will be of importance only in determining job performance when the job involves a lot of interaction with people. Hence, no direct effects of either extraversion or task structure (operationalized as a subjective measure indicating the degree to which the job involves a lot of contact with other people) are expected. However, it is the interaction of these two variables that should be significantly and positively related to time-two income.

The second big-five dimension, emotional stability, is covered by the inclusion of a scale measuring *neuroticism*. This variable is assumed to be negatively related to job performance, across all jobs and situations.

The third dimension of the big five-framework, conscientiousness, is covered by a scale measuring *need achievement*. Subjects who obtain a high score on this variable are determined to perform better than others, work hard, and try to obtain difficult goals. It is hypothesized that subjects with a high need for achievement perform well, and are likely to experience relatively high career progression.

Openness to experience is operationalized as *need for change*. This variable, also labelled boredom susceptibility, is part of the sensation-seeking concept of Zuckerman (1979), but Costa & McCrae (1988) show that it may also be taken as a marker of openness to experience. Need for change has been shown to be important

in determining the course of careers; the literature shows that subjects having a large need for variety are less satisfied with their job than others (Perone, DeWaard & Baron, 1979; Adler & Weiss, 1988; Furnham, 1992; Taris et al., 1991).

Additionally, two other personality measures are included. The first is a scale measuring the amount of *support* a person needs to perform well. People scoring high at this scale are uncertain about their performance, and need a lot of support in order to perform their tasks in a proper way. It is hypothesized that people needing a lot of support are apt to experience less career progression than others, across all occupational groups. Finally, a scale measuring *disinhibition* is included in this study. This is a second dimension of the Zuckerman (1979) sensation-seeking construct. It might be seen as the anti-social counterpart of need for change. It is hypothesized that this variable to a large degree work in a similar way as need for change.

-Personal data. This cluster of variables includes labor market experience, and gender. *Labor market experience* is hypothesized to affect time-one income and job prestige positively, for people having much experience will have had relatively much time to obtain a good job, including a high wage, high job prestige, and good promotion prospects.

It is of major importance in the current study to control for the effects of *gender*, as it is well known that males and females differ concerning the scores on personality traits. For example, Feij (1979) found that female students obtained higher scores than males on emotionality, but that they score lower on sensation-seeking; these results were confirmed by Feij & Kuiper (1984), who additionally showed that male adolescents are more extravert and impulsive. Finally, much sociological research has shown that females tend to experience less career progression, due to various causes; as they often expect to leave the labor force in order to raise their children, they invest less effort in building a career than males do (Schippers, 1987): Alternatively, as employers expect women to leave the labor force, they would tend to pass competent women for promotions. Figure 1 presents a graphical representation of the model to be tested.

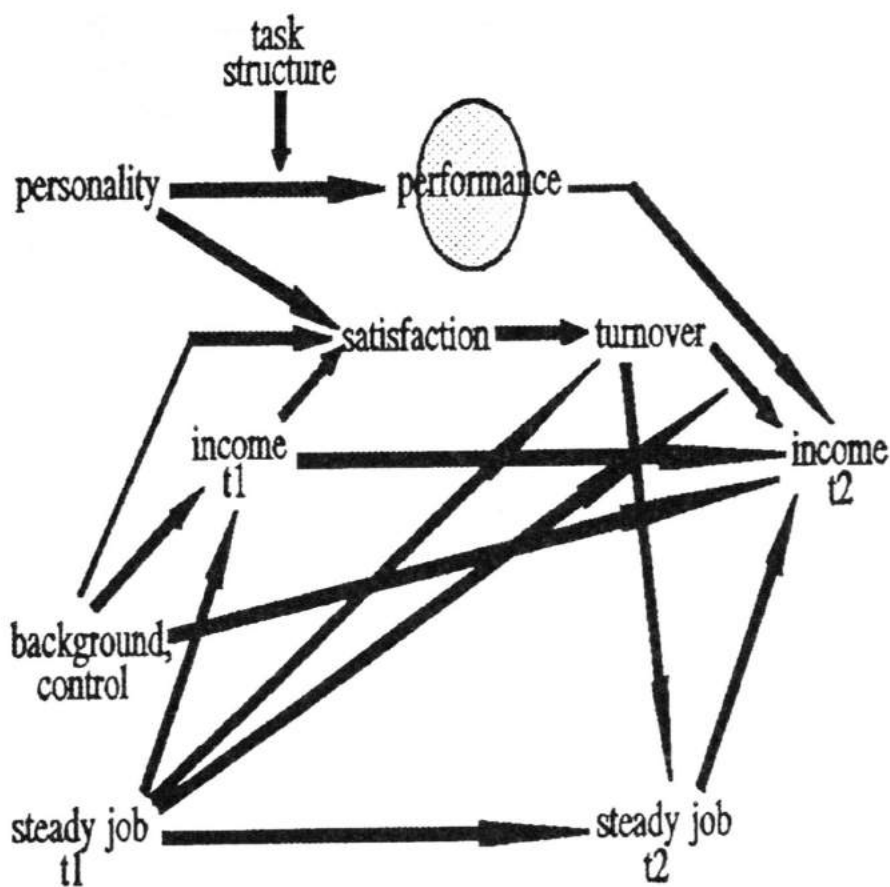


Figure 1. The model to be tested.

Method

Sample. The data to be analyzed were gathered using a panel design. The first wave of the panel was conducted during fall/winter 1987. In total 1775 young adults, equally divided over the birth cohorts 1961, 1965 and 1969, as well as gender, were interviewed using a structured questionnaire, concerning their opinions, attitudes, and behaviour concerning various life domains, among which education and employment. Additionally, the subjects had to complete another questionnaire which among other things addressed various personality traits. A second wave of the study was conducted four years later, during fall/winter 1991. Due to panel attrition the total sample size decreased to 1257 subjects. Taris, Van der Vaart & Dijkstra (1993) show that the nonresponse was not correlated with factors such as employment status, but that higher educated are slightly overrepresented in the sample. From these subjects, those were selected who had a job of at least 8 hours a week at both time points. Applying listwise deletion of missing values, the final sample consists of 580 subjects. More than half (58%) is male, and the mean age as 23.1 years. The subjects had on average 4.7 years of labor market experience.

Operationalizations. The personality factors included in this sample were measured using scales, the reliabilities of these scales (Cronbach's α) ranged from .60 to .86, which was judged to be acceptable given the number of items in the various scales. The personality measures used here were measured at the first wave of the study.

Time-one and time-two income was operationalized as the net hourly income of the respondents. The subjects were asked to indicate their monthly earnings on a ten-point scale; the resulting scores were divided by the number of work hours. As in The Netherlands people get paid for at most forty hours a week, higher values for work hours were truncated at 40. As the resulting income distributions were rather skew, the square root of the net hourly-income variables was taken, after which the variables were approximately normally distributed. Most other variables were measured using single items. Labor market experience refers to the number of years the subject that passed since the subject became available for the labor market. Level of education is measured using an 9-point scale and represents the highest level of education attained by the subject. Time-one and time-two steady job indicates whether the subject held a steady job at time-one/two (score 1) or not (score 0). Satisfaction is a composite of four items which all deal with job satisfaction, rather than general satisfaction. Task structure measures on a five-point scale whether the subject indicates to be working much with people or not. Finally, turnover was operationalized as having changed employers at least once during the four-year observation period. Except where indicated, all variables were measured at time one.

It should be noted that all variables included in this study all represent subjective measures. For most variables this seems not to pose serious problems; however, in the case of task structure (working with people), this may yield unreliable results. As there is no alternative to this variable and because of its importance given the goal of the study, it will be included in the analyses.

3. Results

The standardized ordinary least-squares estimates for the various equations are given in table 1.

A comparison of the empirical results given in table 1 with the model to be tested shows that the hypotheses to be tested are largely confirmed. However, several interesting differences appear. Most of these apply to the emergence of effects which were unexpected. Alternatively, other differences concern expected relations not showing up, or even the reversal of the direction of expected effects. Below the results will be discussed per dependent variable.

Table 1: Ordinary least-squares regression estimates for the model in figure 2 (standardized estimates)

	<u>INCOMT2</u>	<u>STEADY2</u>	<u>JOBCH</u>	<u>SATISFACT</u>	<u>INCOMT1</u>
JOBCH		.517***			
STEADY2	-.251***				
SATISFACT	.090*		-.194***		
INCOMT1	.171***			.096**	
STEADY 1		.679***	-.100*		.091
JOBCH*STEADY1		-.634***			
GENDER	.163***				
EXPERIENCE	.100*		-.087*		.399***
EDUCATION	.147***		.106***		.180***
ND CHANGE	.105**			-.198*	.111**
DISINHIBITION				-.126**	-.105**
ND SUPPORT	-.117**				
ND ACHIEVEMENT				-.148***	
NEUROTICISM					
IMPULSIVITY					
EXTRA					
EXTRA*TASK	.090*				
TASK				.144***	
R ²	.22	.17	.08	.11	.21

Nb. INCOMT1/T2 = net hourly income at time 1/time 2, JOBCH = changed jobs at least once during observation period, SATISFACT - job satisfaction, STEADY/STEADY2 - has steady appointment respectively time one and time two, GENDER = gender (0 = female, 1 = male), EXPERIENCE = labor market experience in years, EDUCATION = level of education, ND CHANGE = need for change, ND SUPPORT = need for support, ND ACHIEVEMENT = need achievement, IMPULSIVITY = impulsivity, DISINHIB = disinhibition, EXTRA = extraversion, NEUROTICISM = neuroticism, TASK = task structure (0 = does not work much with people, 1 = working much with people).

* = $p < .05$, .. = $p < .01$, ... = $p < .001$.

First, time-two income is affected positively by labor market experience, job satisfaction, gender (males experience more progression than females), time-one income, education, and need for change. Negative effects of need for support, and, surprisingly, having a steady job at time two are also found. Finally, extraversion has, as expected, a positive effect at time-two income only, when the subject is employed in a job where interaction with people is important.

Second, having a steady job at time two is affected positively by having changed jobs, and having a steady job at time one. The interaction of having a steady

job and having changed jobs is highly significant, indicating that the relation between having changed jobs and having a steady job at time two is much stronger for people not having a steady job at time one.

Third, having changed jobs at least once during the observation period is affected negatively by job satisfaction, having a steady job, and labor market experience; level of education is positively related to changing jobs. These effects are all as hypothesized.

Fourth, job satisfaction is affected positively by time-one income; need for change, need achievement, and disinhibition are all related negatively to satisfaction. Of these, the negative relation between satisfaction and need achievement was not expected.

Finally, time-one income is affected positively by having a steady appointment, labor market experience, level of education, and need for change, while disinhibition has a negative effect in time-one income.

Of the seven included personality measures (not counting level of education as a personality measure), only impulsivity and neuroticism seem to be unrelated to the process of career development. All other personality traits are related to at least one of the dependent variables, though sometimes indirectly, or via an interaction effect.

Despite the significance and size of the effects, the proportions of variance explained are rather low. The variables account for 22% of the variance in time-two income, for the other dependent variables (having a steady job at time two, having changed jobs at least once, satisfaction, and time-one income) figures of respectively 17%, 8%, 11%, and 21 % are obtained.

4. Conclusion and discussion

The current paper presented an analysis concerning the determinants of career progression, operationalized as the time-two net hourly income, holding time-one income constant. It was hypothesized that personality measures would affect time-two income in either of two ways. First, certain personality traits affect the inclination to change jobs, via job satisfaction. It was assumed that changing jobs often would lead to a relatively strong increase in income during the observation period, as people will only accept a job when they consider this job to be a better position, for instance in terms of job prestige and income. Second, personality traits have been shown to affect job performance; as better-performing employees will be promoted; this is another way for personality to exert its influence on career progression. Below, certain interesting aspects of the results will be discussed in detail. Again, these will be discussed chronologically, per dependent variable and starting with time-two income.

Time-two income. First, having a steady job at time two has a negative and highly significant direct effect at time-two income (estimate of $-.251$, significant at $p < .001$), while a positive effect was expected (note that this hypothesis is tenable for time one). In trying to interpret this effect, it should be noted that there are strong effects between time-one and time-two income, and time-one and time-two steady job. The unexpected negative relation between time-two steady job and time-two income may be explained by assuming that people having a steady appointment at time one will often also have a steady appointment at time two, as evidenced by a $.679$ effect between these two variables. However, having a steady job often means having fixed salary scales and a rather predictable income development; every year a few percent extra. This may especially be true for the sample analyzed here, as it for a relatively large part consists of comparably low educated young adults due to the fact that many of the higher-educated people had not yet finished their education by the time of the first wave and, hence, were excluded from the sample to be analyzed. Furthermore, the people who did not hold a steady appointment at time one but do have such an appointment at time two will probably start at a relatively low wage rate; one may assume that obtaining a steady appointment may be of such value for some people, that they are willing to accept a decrease in income. Both aforementioned reasons may cause the mean income at time two for people having a steady appointment to be relatively low. Additionally, some people who do not have a steady appointment at time two may actually be rather successful in business; they may for instance have started a firm of their own, causing the mean income among the people not having a steady appointment to be rather high. Hence, having a steady job at time two could be negatively associated with time-two income

Having a steady job at time two is affected by having changed jobs at least once, and by having a steady job at time one. The effect of a job change on income is large and positive ($.517$) for people having not a permanent appointment at time one; there is a slight negative effect of ($.517 - .634 =$) $-.117$ for people who held a permanent appointment at time one, as evidenced by a negative interaction effect of having a steady job at time one and having changed jobs at least once. Hence, some people having a steady job at time one do not have a permanent appointment at time two; this finding seems to support the explanation given above for the negative effect between time-two steady job and time-two income.

Job change. Here, no unexpected results are to be noted, with the exception of the negative effect of labor market experience. However, this result may be explained by assuming that people with a lot of experience will have had a lot of opportunities to realize a favourable situation; hence, they will be less willing to change jobs, holding other variables - such as satisfaction - constant.

Job satisfaction. Again, no particularly surprising results are found. Time-one income indeed affects satisfaction with the job, and several personality variables (respectively two variables belonging to the sensation-seeking - construct and need

achievement) affect satisfaction negatively. It may be mentioned that subjects who indicate to be largely working with people in their job report a significantly higher satisfaction than others, as evidenced by a highly significant effect of 117.

Time-one income. Surprisingly, this variable is affected by the two sensation-seeking variables. However, the effects of these variables have opposite signs; i.e. need for change influences income positively, while disinhibition has a negative effect. Both effects are significant at $p < .01$. An a posteriori explanation of this finding is not difficult to give. It is known that both variables measure to some degree the same construct; disinhibition however may be considered to be the antisocial and even psychopathological counterpart of need for change (Klinterberg, Humble, & Schalling, 1992). Hence, the negative effects of sensation seeking on the work career are captured by disinhibition, while the positive aspects are covered by need for change.

It may be concluded that the results reported here largely confirm the hypotheses formulated in the first Section. Direct effects on time-two income of several personality traits were found, as well as indirect effects via satisfaction, time-one income, and job prestige. Hence, it is obvious that personality is of importance in determining the course of careers. This is even more notable when considering the fact that effects between personality and the criterion variable were conceptually linked using job performance as an intermediate variable. However, as no measure of job performance was included in the design of the study, it was expected that the effects of personality traits would often be barely significant. This turned out to be untrue; the personality traits manifested themselves rather strongly and convincingly, and largely complied with the theory specified before. Hence, we feel confident in our conclusion that personality is certainly one of the important determinants of career progression among young adults; in the first phase of their career.

Rather unexpected was the finding that having a steady job at time-two was significantly and negatively related to time-two income, while there was a positive effect at time-one. This was explained by assuming that 1) part of the sample started a firm of their own, resulting in a rather large income increase in comparison with the people holding a steady appointment; or 2) people who had a temporary appointment at time one may be willing to accept a relatively low wage in order to obtain a steady appointment at time two. Of course, further research will have to show which, if any, of these interpretations is tenable and replicable.

References

- Adler, S., & Weiss, H. (1988). Recent developments in the study of personality and organizational behaviour. In C. Cooper & J. Robertson, (eds.), *International Review of industrial and organizational psychology*, pp. 307-329: Chichester: Wiley.

- Andrisani, P.J. (1978). *Work attitudes and labor market experience*. New York: Praeger.
- Arnold, H.J. & Feldman, D.C. (1982). A multivariate analysis of the determinants of job turnover. *Journal of Applied Psychology*, 67, 350-360.
- Arvey, R.D., Carter, G.W., & Buerkley, D.K. (1991). Job satisfaction: Dispositional and situational influences. In C.L. Cooper & I.T. Robertson (eds.), *International Review of industrial and organizational psychology*. Chichester: Wiley.
- Barrick, M.R. & Mount, M.K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.
- Boerlijst, J.G. (1984). Career development and career guidance. In P.J.D. Drenth, H. Thierry, P.J. Willems, & C.J. De Wolff (eds.), *Handbook of work and organizational psychology* (pp. 313-344). New Jersey: Lawrence Erlbaum.
- Boerlijst, G. & Aite-Peña, N. (1990). Loopbaanontwikkeling en -begeleiding (Career development). In P.J.D. Drenth, H. Thierry & C.J. de Wolf (eds.), *Nieuw handbvek arbeids- en organisatiepsychologie*. Deventer: Van Loghum Slaterus.
- Botwin, M.D. & Buss, D.M. (1989). Structure of act-report data: Is the five-factor model of personality recaptured? *Journal of Personality and Social Psychology*, 56, 988- 1001.
- Costa jr., P.T. & McCrae, R.R. (1988). From catalog to classification: Murray's needs and the five-factor model. *Journal of Personality and Social Psychology*, 55, 258- 265.
- Davis-Blake, A. & Pfeffer, J. (1989). Just a mirage: The search for dispositional effects in organizational research. *Academy of Management Review*, 14, 385-400.
- De Gijsel, P., Muysken, J. & Wolfs, G.L.M. (1991). Interne arbeidsmarkten en beloning bij mannen en vrouwen in Nederland (Internal labor markets and pay with respect to males and females in The Netherlands). *Mens & Maatschappij*, 66, 257-275.
- Digman, J.M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41, 417-440.
- Feldman, D.C. (1981). The multiple socialization of organization members. *Academy of Management Review*, 6, 309-318.
- Feij, J.A. (1979). *Temperament. Onderzoek naar de betekenis van extraversie, emotionaliteit, impulsiviteit en spanningsbehoefte* (Temperament: a study concerning the meaning of extraversion, emotionality, impulsivity, and sensation seeking). Lisse: Swets & Zeitlinger.
- Feij, J.A & Kuiper, C.M. (1984). *Adolescenten Temperament Lijst: Handleiding* (manual for the Adolescents Temperament Scale). Lisse: Swets & Zeitlinger.
- Furnham, A. (1992). *Personality at work: The role of individual differences in the work place*. London: Routledge.
- Hall, D.T. (1976). *Careers in organizations*. Santa Monica (CA): Goodyear.

- Hall, D.T. (1986). An overview of current career development theory, research, and practice. In D.T. Hall (ed.), *Career development in organizations* (pp. 1-20). London: Jossey-Bass.
- Hogan, R. (1986). *Manual for the Hogan Personality Inventory*. Minneapolis: National Computer Systems.
- Heesink, J.A.M. (1992). *Uitgeschoold, ingeschaald: Loopbaanontwikkeling en psychisch welzijn van jong-volwassenen (v/m)* (Finished education, starting to work: career development and psychological well-being of young adults (f/m). Amsterdam, Vrije Universiteit (unpublished PhD-thesis).
- John, O.P. (1989). Towards a taxonomy of personality descriptors. In D.M. Buss & N. Cantor (eds.), *Personality psychology: Recent trends and emerging directions*. New York: Springer Verlag.
- Klinterberg, A.F., Humble, K. & Schalling, D. (1992). Personality and psychopathy of males with a history of early criminal behaviour. *European Journal of Personality*, 6, 245-264.
- Lee, T.W. & Mowday, R.T. (1987). Voluntarily leaving an organization: An empirical investigation of Steers and Mowdays model of turnover. *Academy of Management Journal*, 30, 721-743.
- Michaels, C.E., & Spector, P.E. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand & Meglino model. *Journal of Applied Psychology*, 67, 53- 59.
- Miller, H.E., Katerberg, R. & Hulin, C.L. (1979). Evaluation of the Mobley, Horner and Hollingsworth model of employee turnover. *Psychological Bulletin*, 86, 493-522.
- Mobley, W.H., Griffeth, R.W, Hand, H.H. & Meglino, B.M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86, 493-522.
- Muchinsky, P.M. & Tuttle, M.L. (1979). Employee turnover: An empirical and methodological assessment. *Journal of Vocational Behaviour*, 14, 43-77.
- Nicholson, N. & West, M. (1988). *Managerial job change: Men and women in transition*. London: Cambridge University Press.
- Perone, M. DeWaard, R.J. & Baron, A. (1979). Satisfaction with real and simulated jobs in relation to personality variables and drug use. *Journal of Applied Psychology*, 64, 660-668.
- Porter, L.W. & Steers, R.M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, 80, 151-176.
- Schein, E.H. (1978). *Career dynamics: Matching individuals and organizational needs*. Reading (MA), Addison-Wesley.
- Schippers, J.J. (1987). *Beloningsverschillen tussen mannen en vrouwen* (Wage differences between males and females). Groningen: Wolters-Noordhoff.

- Schmidt, F.L., Hunter, J.E., & Caplan, J.R. (1981). Validity generalization results for two job groups in the petroleum industry. *Journal of Applied Psychology*, 66, 261-273.
- Schmidt, F.L., Hunter, J.E., Pearlman, K., & Shane, G.S. (1979). Further tests of the Schmidt-Hunter Bayesian validity generalization procedure. *Personnel Psychology*, 32, 257-281.
- Schmitt, N., Gooding, R.Z., Noe, R.A & Kirsch, M. (1984). Meta analyses of validity studies published between 1964 and 1982 and the investigation of study characteristics. *Personnel Psychology*, 37, 407-422.
- Taris, T.W., Heesink, J.A.M., Feij, J.A., Van der Velde, E.G., & Van Gastel, J.H.M. (1991). Arbeidsmobiliteit van jongeren: De invloed van persoons- en werkkenmerken (work mobility of young adults: the effects of personality and work characteristics). *Gedrag en Organisatie*, 4, 444-463.
- Taris, T.W., Van der Vaart, W., & Dijkstra, W. (1993). Uitval en nonresponse (Attrition and nonresponse). In W. Dijkstra (ed.), *De gegevensverzameling voor de tweede hoofdmeting*. Amsterdam: Vrije Universiteit.
- Taris, T.W., Van der Velde, M.E.G., Feij, J.A. & Van Gastel, J.H.M. (in press). Young adults in their first job: The role of organizational factors in determining job satisfaction and turnover. *International Journal of Adolescence and Youth*.
- Tuma, N.B. (1985). Effects of labor market structure on job shift patterns. In J.J. Heckman & B. Singer (eds.), *Longitudinal analysis of labor market data* (pp. 327-363). Cambridge: Cambridge University Press.
- Tett, R.P., Jackson, D.N. & Rothstein, M. (1991). Personality measures of job performance: A meta-analytic review. *Personnel Psychology*, 44, 703-742.
- Van den Berg, P.T. (1992). *Persoonlijkheid en werkbeleving: De validiteit van persoonlijkheidsvragenlijsten, in het bijzonder die van een spanningsbehoefte lijst* (Personality and subjective experience of work: The validity of personality questionnaires, in particular the validity of a sensation-seeking questionnaire). Amsterdam: Vrije Universiteit (unpublished PhD-thesis).
- Van den Berg, P.T. & Feij, J.A. (1991). Selection and work redesign in an attempt to retain information technology professionals. In H. Schuler & U. Funke (eds.), *Eignungsdiagnostik in Forschung und Praxis. Beiträge zur Organisationspsychologie, Band 10*. Stuttgart: Verlag für angewandte Psychologie.
- Wanous, J.P. (1980). *Organizational entry: recruitment and socialization of newcomers*. Reading (MA): Addison-Wesley.
- Ward, E.A. (1988). Relation of job satisfaction and job knowledge and their effect on intention to turnover. *Psychological Reports*, 63, 611-615.
- Zuckerman, M. (1979). *Sensation seeking: Beyond the optimal level of arousal*. Hillsdale (NY): Erlbaum.