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Development and Test of an Integrative Model of Job Search Behavior

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Abstract

Research on job search and the theory of planned behavior (TPB) has identified job search attitude, subjective norm, and job search self-efficacy as the most proximal determinants of job seekers' search intentions and subsequently job search behaviors. However, we do not yet know how more distal individual differences (e.g., personality) and situational factors (e.g., social context) might help to predict these key TPB determinants of job search behavior. In an integrative model of job search behavior, we propose specific relationships between these distal variables and the TPB determinants, which in turn are expected to mediate the effects of individual differences and situational factors on job search behavior. The hypothesized model is tested in a large representative sample of 1,177 unemployed Flemish job seekers using a two-wave design and provides a satisfactory fit to the data. Extraversion, conscientiousness, core self-evaluations, employment commitment, financial need, and social support are found to differentially relate to instrumental and affective job search attitude, subjective norm, and job search self-efficacy. In addition, all distal variables are indirectly related to job search behavior through their effects on the TPB variables. These results support our expanded and integrative model of job search behavior.

KEYWORDS: Job search; unemployment; job search behavior; theory of planned behavior; integrative model.

Development and Test of an Integrative Model of Job Search Behavior

Due to the worldwide economic crisis in recent years, increasingly more people are confronted with job loss and unemployment. The mobility of the workforce has grown considerably as individuals search for work following job loss and pursue opportunities to advance their careers. Job search has become so pervasive and frequent that it is considered to be an integral part of people's work life (Wanberg, 2012). At the same time, there has been a dramatic increase in research on job search and unemployment (Boswell, Zimmerman, & Swider, 2012). Given that job search behavior has been found to be the key determinant of finding (re)employment (Kanfer, Wanberg, & Kantrowitz, 2001), research has focused on identifying the predictors of job search behavior.

One of the dominant theories for predicting job search behavior has been the theory of planned behavior (TPB; Ajzen, 1991), which posits that people will be more likely to engage in job search behaviors when they have formed stronger intentions to do so. In turn, job seekers will have higher job search intentions when they have a positive attitude towards job search, when they perceive social pressure to search for jobs, and when they feel confident about being able to conduct a successful job search. Empirical findings have supported the central assumptions of the TPB in a job search context (Van Hooft, Born, Taris, Van Der Flier, & Blonk, 2004b), suggesting that the best way to stimulate people's search intentions and subsequently actual search behaviors might consist of strengthening their job search attitude, subjective norm, and job search self-efficacy.

A drawback of the TPB is that it represents mainly a proximal theory of human behavior, including only its most immediate determinants (Conner & Abraham, 2001). Therefore, we do not yet know how more distal individual differences (e.g., personality) and situational factors (e.g., social context) might help to predict the key TPB determinants of job search behavior (Conner & Armitage, 1998). Apart from the conceptual extensions, the

identification of these relationships offers valuable implications for job search counselors and policy makers. For instance, individual difference antecedents might be used to identify risk groups of unemployed individuals in need of more intensive job search counseling and training aimed at increasing their job search attitude, subjective norm, and/or job search self-efficacy, whereas situational antecedents might be affected more directly through policy decisions and job search interventions.

Therefore, the current study develops and tests a new integrative model of the predictors of job search behavior. On the basis of Fishbein's (2000) integrative model of behavioral prediction, we propose that individual differences and situational factors operate as distal variables differentially predicting the proximal TPB determinants of job search intention. In turn, the TPB variables are expected to mediate the effects of the distal variables on job search behavior. Hence, our integrative model expands and integrates two separate streams of prior research in the job search literature: (a) research that investigated the TPB determinants of job search behavior, but did not include the more distal predictors of these determinants (Van Hooft, Born, Taris, & Van Der Flier, 2004a), and (b) research that examined the impact of individual differences and situational factors on job search behavior, but did not specify the processes through which their effects might occur (Kanfer et al., 2001).

In the next section we briefly review research on job search and the TPB followed by a discussion of Fishbein's (2000) expanded model of behavioral prediction and our integrative model of job search behavior.

Theory of Planned Behavior and Job Search

The TPB has received substantial empirical support in predicting a wide range of behaviors (Armitage & Conner, 2001). According to the TPB, the best predictor of human behavior is one's intention to perform the behavior (Ajzen, 1991). Furthermore, intentions are predicted by an individual's attitude towards performing the behavior, subjective norm or the

perceived social pressure to perform the behavior, and perceived behavioral control which refers to the perceived ease or difficulty of performing the behavior (Ajzen, 1991).

Several studies have found support for the applicability of the TPB for predicting job search behavior among employed and unemployed job seekers as well as those seeking full-time and temporary employment (Song, Wanberg, Niu, & Xie, 2006; Van Hooft, Born, Taris, & Van Der Flier, 2005; Van Hooft et al., 2004a, 2004b; Van Hooft & De Jong, 2009; Van Ryn & Vinokur, 1992; Vinokur & Caplan, 1987; Wanberg, Glomb, Song, & Sorenson, 2005; Zikic & Saks, 2009). In particular, job search attitude, subjective norm, and perceived behavioral control have been found to predict job seekers' intention to search for jobs, which in turn is the main determinant of actual job search behavior. Research on the TPB and job search has defined and operationalized perceived behavioral control as job search self-efficacy – job seekers' belief or confidence that they can successfully perform various job search activities (Van Hooft et al., 2005). In addition, the TPB has proven to be useful for predicting job search behavior in a number of different countries including the Netherlands (Van Hooft et al., 2004a), the United States (Wanberg et al., 2005), Canada (Zikic & Saks, 2009), and China (Song et al., 2006).

As one of the original founders of the TPB (Fishbein & Ajzen, 1975), Fishbein (2000) later revised and expanded the TPB to improve the prediction of behavior by integrating several theories of behavioral prediction and behavior change. The resulting integrative model extends the TPB by including distal or external variables such as personality traits, attitudes towards targets, other individual difference variables, and situational variables that are proposed to play an indirect role in influencing behavior (Fishbein, 2000; Fishbein & Cappella, 2006; Fishbein & Yzer, 2003). Specifically, these distal variables are thought to affect the beliefs underlying the three more proximal psychosocial variables (attitude, subjective norm, and self-efficacy) that predict behavioral intentions (Fishbein et al., 2003).

For instance, scoring higher on a particular personality trait can increase the likelihood that a person will perceive that she can perform a specific behavior, even in the face of barriers or obstacles, strengthening her self-efficacy beliefs (Fishbein & Cappella, 2006).

Importantly, the integrative model of behavioral prediction only expects the distal variables to be related to performing a behavior when they are systematically related to at least one of the three underlying types of attitudinal, normative, or control beliefs (Fishbein, 2000). When they are not, they are unlikely to be related to the behavior in question. This implies that any effects of the distal variables on behavior are proposed to be indirect and mediated by their effects on attitude, subjective norm, and self-efficacy subsequently affecting intention and finally behavior (Fishbein & Yzer, 2003).

To date, the integrative model of behavioral prediction has mainly been applied in the area of promoting health-related behaviors (Fishbein & Cappella, 2006). However, it seems highly relevant for understanding job search behavior and for integrating the TPB variables with other – more distal – job search predictors. In the present study, we focus on the distal variables of Fishbein's (2000) integrative model because they are very similar to the trait and contextual variables that have been found to predict job search behavior (Kanfer et al., 2001) but are not included in current conceptualizations of the TPB and job search.

Integrative Model of Job Search Behavior

On the basis of Fishbein's (2000) integrative model of behavioral prediction, we develop a model integrating the predictors of job search behavior. As shown in Figure 1, both individual difference variables (extraversion, conscientiousness, core self-evaluations, and employment commitment) and situational factors (financial need and social support) were selected to operationalize distal variables potentially relevant in a job search context. Whereas prior research has found a relationship between each of these variables and job search behavior (for a review and meta-analysis, see Kanfer et al., 2001), it is not yet clear through

which processes they might exert their effects. Our integrative model proposes that the relationships between the distal variables and job search behavior are indirect and mediated by the TPB variables. Specifically, the distal individual difference and situational variables are expected to differentially predict the more proximal TPB determinants – job search attitude, subjective norm, and job search self-efficacy. In turn, these psychosocial variables are expected to predict job search intention which subsequently predicts job seekers' intensity of engaging in job search behaviors.

Given that Fishbein's (2000) integrative model of behavioral prediction proposes that the relative importance of the distal variables will depend upon both the behavior and the population being considered, we develop hypotheses concerning their differential relationships with attitude, subjective norm, and self-efficacy in a job search context in the following sections (see Figure 1).

Job Search Attitude

Job search attitude refers to the extent to which an individual has a positive or negative evaluation of job search behavior. Although most job search research on the TPB has only examined instrumental job search attitude (belief that job search is beneficial), a few studies have also looked at affective job search attitude (whether job search is experienced as pleasurable). These two components of job search attitude are only weakly correlated with each other, but both contribute to the prediction of job search intention (Van Hooft et al., 2004a, 2004b). Therefore, both instrumental and affective job search attitude are included in the present study and are proposed to have different determinants.

As shown in Figure 1, our model proposes that *instrumental job search attitude* is determined by conscientiousness, core self-evaluations, employment commitment, financial need, and social support. First, conscientiousness has been identified as one of the strongest distal predictors of job search behavior (Kanfer et al., 2001). It involves both aspects of

dependability (thorough, responsible, organized, and planful) and volitional tendencies (hardworking, achievement-oriented, and persevering) (Barrick & Mount, 1991).

Conscientious individuals are more likely to set goals and persist until they achieve their goals (Judge & Ilies, 2002). In fact, Côté, Saks, and Zikic (2006) found that more conscientious job seekers had clearer job search goals. Given that unemployed individuals who are more conscientious are more likely to set employment goals and try harder to achieve those goals (Van Hove & Lootens, 2013), they are also more likely to regard job search as a worthwhile activity that allows them to reach their goals.

Hypothesis 1a. Conscientiousness will be positively related to instrumental job search attitude.

Second, core self-evaluations is a broad latent construct consisting of four highly related individual difference variables: self-esteem, emotional stability, locus of control, and generalized self-efficacy (Judge, Erez, Bono, & Thoresen, 2003). It reflects the beliefs people hold about themselves and refers to having a positive overall self-concept. Given that job seekers with higher core self-evaluations are more positive and tend to see themselves as drivers of their own success (Judge et al., 2003), they are more likely to believe that investing time in job search is a worthwhile activity leading them to finding a job. Along these lines, Wanberg et al. (2005) found that core self-evaluations related positively to job seekers' intensity of engaging in job search behaviors.

Hypothesis 1b. Core self-evaluations will be positively related to instrumental job search attitude.

Third, we expect employment commitment to be positively related to instrumental job search attitude. Employment commitment consists of individuals' attitude toward the importance of employed work and has been found to be positively associated with job search behavior (Kanfer et al., 2001). Job seekers with a strong commitment to employment have a

strong attachment to work. Thus, they are more likely to believe that engaging in job search behavior is beneficial, given that it helps them to obtain a valued outcome (i.e., employment) (Van Hooft et al., 2004b).

Hypothesis 1c. Employment commitment will be positively related to instrumental job search attitude.

Fourth, financial need involves the financial hardship experienced by a job seeker, which has been demonstrated to relate positively to engaging in job search behaviors (Kanfer et al., 2001). Job seekers who have financial obligations and lack financial resources are more negatively affected by their current situation and experience a stronger need to find a new job quickly compared to job seekers who have financial resources such as unemployment benefits (Vinokur & Caplan, 1987). Therefore, it is expected that job seekers who perceive more financial need will have a more positive instrumental attitude toward job seeking.

Hypothesis 1d. Financial need will be positively related to instrumental job search attitude.

Finally, social support refers to the emotional support that job seekers receive from their social environment (e.g., family members, friends) with respect to their job search. It represents an important coping resource for job seekers as well as a source of motivation, which has consistently been found to be an important predictor of job search behavior (Kanfer et al., 2001). By encouraging job seekers in their job search efforts and by communicating their belief that pursuing a job is worthwhile, the social environment can influence job seekers' own belief that job search is an important activity (Vinokur & Caplan, 1987). As a result, job seekers with more job seeking social support are likely to have more positive instrumental attitudes toward job search.

Hypothesis 1e. Social support will be positively related to instrumental job search attitude.

With respect to *affective job search attitude*, our model proposes extraversion and core self-evaluations as predictors. First, meta-analytic findings suggest that extraversion might be the strongest distal predictor of job search behavior (Kanfer et al., 2001). It refers to being sociable, assertive, talkative, and active (Barrick & Mount, 1991). Moreover, extraverts are more likely to interpret events positively and experience positive emotions (Goldberg, 1990). Along these lines, Turban, Stevens, and Lee (2009) found that more extraverted job seekers reported more positive emotions during their job search. Therefore, we expect people with higher levels of extraversion to have more positive feelings and experiences during job search and thus to have more positive affective job search attitudes.

Hypothesis 2a. Extraversion will be positively related to affective job search attitude.

Second, given that core self-evaluations are associated with being positive as well as representing a motivational trait (Judge et al., 2003), we predict that it will be related to having a more positive affective job search attitude. In line with this theoretical assumption, empirical research has demonstrated that core self-evaluations are positively related to affective job attitudes such as job satisfaction (Judge & Bono, 2001) and affective organizational commitment (Stumpp, Hülshager, Muck, & Maier, 2009).

Hypothesis 2b. Core self-evaluations will be positively related to affective job search attitude.

Subjective Norm

Subjective norm refers to one's perception of social pressure and expectations from significant others to search for a job (Van Hooft et al., 2004b). Our model predicts that financial need and social support will be related to subjective norm. First, financial need is likely to influence the social pressure and expectations of significant others on a job seeker to find employment. When a job seeker is lacking financial resources, significant others will be negatively affected and therefore exert greater pressure on the individual to search for

employment (Vinokur & Caplan, 1987).

Hypothesis 3a. Financial need will be positively related to subjective norm.

Second, the support that job seekers receive from their social environment with respect to their job search is expected to be related to subjective norm. Job seekers who have more job seeking social support are more likely to perceive pressure and expectations from significant others for finding employment (Vinokur & Caplan, 1987). This reflects the motivational properties associated with social support and might partly underlie the positive relationship between social support and job search behavior in previous research (Kanfer et al., 2001).

Hypothesis 3b. Social support will be positively related to subjective norm.

Job Search Self-Efficacy

Our model conceptualizes extraversion, conscientiousness, core self-evaluations, and social support as predictors of job search self-efficacy. First, job search involves active and social behaviors such as asking other people about job leads and contacting potential employers (Blau, 1994). Therefore, more extraverted job seekers, who are more sociable, assertive, and active, are likely to feel more confident in successfully performing these activities (Goldberg, 1990). In addition, job seekers with higher conscientiousness have clearer job search goals (Côté et al., 2006) and spend more time on their job search (Kanfer et al., 2001). Their planful and organized approach to job search together with their tendency to persist and perform well is likely to help them learn effective job search behaviors and feel confident about performing them (Turban et al., 2009). In line with this theoretical reasoning, meta-analytic findings indicate that extraversion and conscientiousness are positively related to task-related self-efficacy (Judge & Ilies, 2002).

Hypothesis 4a. Extraversion will be positively related to job search self-efficacy.

Hypothesis 4b. Conscientiousness will be positively related to job search self-efficacy.

Second, job seekers with higher core self-evaluations are expected to have stronger job search self-efficacy beliefs because they are more positive, self-confident, and have stronger beliefs in their own agency (Judge et al., 2003). Moreover, several of the underlying constructs of core self-evaluations (e.g., self-esteem) have been found to be positively related to job search self-efficacy (Brown, Cober, Kane, Levy, & Shalhoop, 2006).

Hypothesis 4c. Core self-evaluations will be positively related to job search self-efficacy.

Finally, significant others can strengthen the job search self-efficacy of job seekers by helping them cope with the stress of job search thereby lowering their physiological arousal, and by providing encouragement and positive feedback (Vinokur & Caplan, 1987). Thus, job seeking social support represents several sources of self-efficacy information that might strengthen a job seeker's self-efficacy beliefs.

Hypothesis 4d. Social support will be positively related to job search self-efficacy.

Job Search Intention

On the basis of the TPB (Ajzen, 1991) and the integrative model of behavioral prediction (Fishbein, 2000), instrumental and affective job search attitude, subjective norm, and job search self-efficacy are predicted to be positively related to the intention to search for jobs. Among those studies that have applied the TPB to job search, job search attitudes and subjective norm have for the most part been found to significantly predict job search intentions (Van Hooft et al., 2004a). However, for job search self-efficacy, some studies have found a significant relationship with job search intention (e.g., Zikic & Saks, 2009) but other studies have not (e.g., Song et al., 2006). One possible explanation might involve the different ways in which job search self-efficacy has been measured. There appears to be little consensus across studies in terms of item content as well as the number of items that has varied from one to ten (Song et al., 2006; Van Hooft & De Jong, 2009; Wanberg et al., 2005;

Zikic & Saks, 2009). Previous research has mostly used measures based on Van Ryn and Vinokur's (1992) scale of job search self-efficacy and Ellis and Taylor's (1983) task-specific self-esteem scale. Although some of these scale items closely correspond to the job search activities generally included in measures of job search intention and behavior (e.g., use friends or other contacts to discover promising job openings), others do not (e.g., make the best impression and get points across in an interview). Theoretically, commensurate measures make more sense, as job seekers are more likely to engage in specific job search behaviors if they have the intention to perform those same behaviors and if they feel confident about doing so successfully. This is consistent with Ajzen's (1991) requirement for accurate prediction that measures of perceived behavioral control and intention must correspond to the behavior of interest. Therefore, the present study uses measures of job search self-efficacy, intention, and behavior that all refer to the same job search activities.

Hypothesis 5a. Instrumental job search attitude will be positively related to job search intention.

Hypothesis 5b. Affective job search attitude will be positively related to job search intention.

Hypothesis 5c. Subjective norm will be positively related to job search intention.

Hypothesis 5d. Job search self-efficacy will be positively related to job search intention.

Job Search Behavior

According to the TPB, the best predictor of human behavior is the intention to perform the behavior (Ajzen, 1991). Furthermore, job search intention is expected to mediate the relationship of job search attitude, subjective norm, and job search self-efficacy with job seekers' intensity of performing job search behaviors (Van Hooft et al., 2004a, 2004b). Research on job search and the TPB has generally confirmed that job search intention is the

strongest predictor of job search behavior (Van Hooft & De Jong, 2009) and in most cases mediates the relationship between the other TPB variables and job search behavior (Van Hooft et al., 2005).

Hypothesis 6. Job search intention will be positively related to job search behavior.

Hypothesis 7. Job search intention will mediate the relationship of instrumental and affective job search attitude, subjective norm, and job search self-efficacy with job search behavior.

Whereas the original TPB was conceptualized as a “complete” theory of behavior, it only includes the most proximal determinants of behavior and not more distal variables such as individual differences or situational factors (Conner & Abraham, 2001). On the basis of their review of the TPB, Conner and Armitage (1998) concluded that “the model gives a description of the processes by which attitudes and beliefs determine behavior, but not of the process whereby other variables (e.g., personality) influence components of the TPB” (p. 1432). Along these lines, Ajzen (1991) argued that the influences of such distal variables on behavior are greatly attenuated by the presence of other, more immediate determinants, suggesting that they might only affect behavior indirectly through their impact on one or more of the TPB variables. Although this was used as an argument not to include distal variables in the TPB, knowing how individual differences and situational factors relate to the TPB variables might be highly valuable in understanding and influencing the key determinants of behavior (Fishbein & Cappella, 2006).

Building on this reasoning, Fishbein’s (2000) integrative model of behavioral prediction explicitly incorporates distal individual difference and situational variables and specifies the processes through which they might affect behavior. In particular, distal individual differences and situational factors are proposed to only affect behavior indirectly by influencing the beliefs underlying at least one of the three more proximal TPB

determinants (attitude, subjective norm, and self-efficacy) that in turn predict behavioral intention (Fishbein & Yzer, 2003). This implies that when a distal variable is not related to any of the TPB determinants, it will also not affect the behavior in question.

Therefore, our integrative model of job search behavior proposes that the TPB variables will mediate the relationships between the distal variables and job search behavior. Specifically, we expect that any effects of the distal trait and contextual variables on job search behavior will be indirect, operating through their hypothesized effects on job search attitude, subjective norm, and/or job search self-efficacy subsequently affecting job search intention and finally job search behavior. The specific mediating TPB variables for each of the distal variables follow from the preceding hypotheses and are shown in Figure 1. For instance, job seekers higher in conscientiousness are expected to spend more time on job search behaviors because they are more likely to believe that job search is a worthwhile activity (instrumental job search attitude) and that they are able to conduct a successful job search (job search self-efficacy), both leading them to form stronger job search intentions.

Hypothesis 8. The variables from the TPB (instrumental and affective job search attitude, subjective norm, job search self-efficacy, and job search intention) will mediate the relationship between the distal variables (extraversion, conscientiousness, core self-evaluations, employment commitment, financial need, and social support) and job search behavior.

Method

Participants and Procedure

The data for this study were collected in a two-wave design in collaboration with the Public Employment Service in Flanders, the Dutch-speaking district of Belgium, as part of a broader research project. The distal and TPB variables were measured at Time 1 and job search behavior was assessed at Time 2, three months later. At the time of the data collection,

the Flemish unemployment rate was relatively high (8.52%). To create a geographically representative sample of unemployed job seekers, participants were recruited from 35 different Workforce Centers across Flanders' five main regions. It was stressed that (1) participation was voluntary and would in no way affect their official record, (2) answers would be treated confidentially, and (3) they should answer honestly on the basis of their own opinion or experiences, as there were no right or wrong answers. If job seekers agreed to participate, they could complete the Time 1 survey on one of the computers in the Workforce Centre. Following recommendations for electronic data collection strategies (Stanton & Rogelberg, 2001), the data were carefully screened (i.e., for responses not matching "legal" identifiers and for inadvertent and malicious multiple responses), and all suspect cases were removed. In addition, all respondents who indicated that they were not unemployed and/or not looking for a job were removed from the data. In total, about 10% of the cases were deleted, resulting in 1,876 usable responses. Research assistants were trained to administer a follow-up survey by phone three months after participants completed Time 1 measures. Given that some job seekers were only recently unemployed at Time 1, this time interval of three months was chosen to allow the distal and TPB variables to exert their effects on job search behavior. If participants could not be reached after three attempts, they were deleted from the phone list. In total, 1,177 individuals completed the Time 2 survey, yielding a response rate of 63%.

Of our final sample of 1,177 unemployed job seekers, 52% were women and age ranged from 17 to 58 years ($M = 27.29$, $SD = 9.24$). With respect to education, 12% obtained a primary school degree, 59% a high school degree, and 29% a college degree. The most important reasons participants stated for their job search were recent graduation (i.e., new entrants) (33%), end of contract (22%), and involuntary turnover (21%). Regarding occupation, 65% was looking for a white-collar job and 35% for a blue-collar job. In terms of unemployment duration, a large majority (80%) of respondents had been unemployed for less

than one year, with 7% being unemployed between one and two years, and 13% for two or more years ($M = 11.04$ months, $SD = 29.75$; median = 1 month). At Time 2, 49% of our sample had become (re)employed¹.

With respect to the total population of Flemish unemployed job seekers at the time of the study, 51% were women; the average age was 30 years; 17% obtained a primary school degree, 60% a high school degree, and 23% a college degree; and 57% was unemployed for less than one year, 18% between one and two years, and 25% for two or more years. Our sample did not differ significantly from this population in terms of gender composition, $\chi^2(1) = 0.82, p > .05$, and number of job seekers with a high school degree, $\chi^2(1) = 0.31, p > .05$. However, our sample was somewhat younger than the average Flemish job seeker, $t(1,176) = -10.08, p < .01$, and contained less people with a primary school degree, $\chi^2(1) = 17.24, p < .01$, more people with a college degree, $\chi^2(1) = 38.57, p < .01$, and less long-term unemployed individuals, $\chi^2(2) = 186.28, p < .01$.

To check for selective nonresponse at Time 2, all Time 1 variables were entered in a logistic regression analysis predicting the probability of being included in the Time 2 sample (Goodman & Blum, 1996). Some nonrandom sampling was observed, $\chi^2(17) = 37.36, p < .01$. Specifically, college educated ($\text{Exp}(B) = 1.41, p < .05$) job seekers with lower financial need ($\text{Exp}(B) = 0.85, p < .05$) and higher job search self-efficacy ($\text{Exp}(B) = 1.27, p < .05$) were more likely to remain in the study. With respect to education, 29% of respondents obtained a college degree versus 18% of nonrespondents. The mean differences between respondents and nonrespondents concerning financial need (0.10) and job search self-efficacy (0.08) represented only a small percentage of the range of these variables (2% and 1.5% respectively).

Time 1 Measures

Unless stated otherwise, items were rated on a 5-point Likert-scale, ranging from 1 =

strongly disagree to 5 = *strongly agree*.

Demographic variables. On the basis of previous research (Kanfer et al., 2001; Wanberg, Hough, & Song, 2002), gender (0 = *male*, 1 = *female*), age (in years), education, type of job seeker, and occupation (0 = *blue-collar*, 1 = *white-collar*) were included as control variables in the analyses². Two dummy variables (i.e., primary school and college) were created for education, with the largest category (i.e., high school) as the reference group. As job seekers provided a variety of reasons for their job search, only one dummy variable was created distinguishing recent graduates from other job seekers. This was done because recent graduates constituted the largest group (33%) and because they were most likely to differ from other job seekers such as various types of job losers (Boswell et al., 2012).

Personality. Extraversion and conscientiousness were both measured with a ten-item scale from the International Personality Item Pool (2001), corresponding to the broad extraversion and conscientiousness domains of the Revised NEO Personality Inventory (Costa & McCrae, 1995; Goldberg, 1999). Sample items are “I feel comfortable around other people” (*extraversion*, $\alpha = .87$) and “I make plans and stick to them” (*conscientiousness*, $\alpha = .81$).

Core self-evaluations. As a higher-order construct of the core traits of self-esteem, generalized self-efficacy, emotional stability, and locus of control, core self-evaluations were measured with the 12-item Core Self-Evaluations Scale (Judge et al., 2003). An example item is “When I try, I generally succeed” ($\alpha = .84$).

Employment commitment. Job seekers’ attitude toward the importance of employed work was measured with a six-item scale from Warr, Cook, and Wall (1979). A sample item is “Having a job is very important to me” ($\alpha = .77$).

Financial need. Four items combining the three-item scale from Vinokur and Caplan (1987) with the two-item scale from Wanberg et al. (2002) were used to measure job seekers’

perceived financial hardship. A sample item is “It is financially important for me to find a job in the next three months” ($\alpha = .73$).

Social support. Three items developed by Adams and Rau (2004) were used to assess the perceived emotional support from others with respect to job search. An example item is “People I know, such as family or friends, encourage my job search efforts” ($\alpha = .86$).

Job search attitude. Both the instrumental and the affective component of job search attitude were measured with a scale developed by Van Hooft et al. (2004b). *Instrumental* job search attitude was measured by two items (e.g., “It is wise for me to look for a job in the next three months”, $\alpha = .73$) and *affective* job search attitude was measured by four items (e.g., “I think job search is an enjoyable activity”, $\alpha = .84$).

Subjective norm. Perceived social pressure to search for a job was measured with the two-item scale from Vinokur and Caplan (1987). A sample item is “Most people who are important to me, think I should look for a job in the next three months” ($\alpha = .83$).

Job search self-efficacy. Job seekers’ self-efficacy concerning job search behavior was assessed by asking them if they felt confident about being able to perform ten different job search activities successfully (Van Ryn & Vinokur, 1992). The activities listed corresponded to our measure of job search behavior at Time 2 (Ajzen, 1991). An example item is “I feel confident about being able to prepare/revise my resume successfully” ($\alpha = .80$).

Job search intention. Job seekers’ intention to engage in job search behavior was measured by asking them to indicate how much time they intended to spend on ten different job search activities in the next three months (Van Hooft et al., 2004b). Again, the activities listed corresponded to our measure of job search behavior at Time 2. A sample item is “In the next three months, how much time do you intend to spend on reading classified/help wanted advertisements?” ($\alpha = .86$). Items were rated on a 5-point rating scale, ranging from 1 = *no time at all* to 5 = *very much time*.

Time 2 Measures

Job search behavior. At Time 2, job seekers' intensity of performing job search behaviors was measured by a scale adapted from Van Hooft et al. (2004b) that asks respondents to indicate how much time they have spent on several job search activities in the past three months or until they found a job. One item from the original 11-item scale (i.e., "Going on a job interview") was removed, because it relates more to employment outcomes (i.e., job interviews) than to job search behavior. Hence, our scale consisted of ten items, which were rated on a 5-point rating scale, ranging from 1 = *no time at all* to 5 = *very much time*. A sample item is "In the past three months or until you found a job, how much time have you spent on looking for jobs on the internet?" ($\alpha = .75$).

Results

Descriptive Statistics

Table 1 presents the descriptive statistics and correlations among the study variables.

Test of Measurement Model

Using Mplus 7 (Muthén & Muthén, 2012), we conducted a confirmatory factor analysis to investigate the fit of our measurement model before examining our hypothesized structural model. In this twelve-factor model, each indicator was specified to load only on the latent variable it was purported to measure and each latent variable was allowed to co-vary with the other latent variables. Given that seven of our twelve latent variables were measured by six to twelve items, item parcels were created to serve as indicators for these constructs (Hall, Snell, & Foust, 1999). Specifically, three item parcels were established for extraversion, conscientiousness, core self-evaluations, employment commitment, job search self-efficacy, job search intention, and job search behavior. For financial need, social support, instrumental and affective job search attitude, and subjective norm, the individual items (two to four) were used as separate indicators.

Given that the chi square statistic is sensitive to sample size, which was large in the present study, we used multiple goodness-of-fit indices to assess how well the model fits the data (Hu & Bentler, 1998). Specifically, the comparative fit index (*CFI*), the Tucker-Lewis index (*TLI*), the root mean square error of approximation (*RMSEA*), and the standardized root mean square residual (*SRMR*) were inspected. For the *CFI* and the *TLI*, values $\geq .90$ indicate acceptable fit and values $\geq .95$ good fit. For the *RMSEA* and the *SRMR*, values $\leq .08$ suggest acceptable fit and values $\leq .05$ good fit.

Table 2 shows that our hypothesized twelve-factor measurement model produced a satisfactory fit to the data. Inspection of the factor loadings revealed that each item had a highly significant loading on the factor it was purported to measure, indicating satisfactory convergent validity. In addition, in support of the discriminant validity of the measures, a one-factor model produced a very poor fit to the data.

To further investigate the discriminant validity of our measurement model, we compared the proposed twelve-factor model to several alternative models wherein we combined conceptually related constructs into one factor. Specifically, we tested (a) a three-factor model in which the six distal variables loaded on one factor, the five TPB variables on another factor, and job search behavior on a third factor, (b) an eleven-factor model wherein we collapsed affective and instrumental job search attitude into one factor, (c) an eleven-factor model in which employment commitment and instrumental job search attitude loaded on a single factor, (d) an eleven-factor model combining conscientiousness and core self-evaluations into one factor, and (e) an eleven-factor model in which job search self-efficacy and job search intention were combined into one factor. In each case, our hypothesized twelve-factor model fit the data significantly better than any of the alternative models (see Table 2), providing further evidence that the twelve constructs measured were relatively distinct from each other.

Finally, we also tested for possible common method variance at Time 1 due to the use of a single survey (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). As the questionnaire contained some reversed items, it was possible to account for method variance by introducing a method factor on which all Time 1 indicators (including the non-recoded reversed items) had unit loadings. This method factor captures individual differences in scale use (Maydeu-Olivares & Coffman, 2006) and has the important advantage that it can be included in subsequent structural models (whereas other, less well-specified method factors have been shown to bias estimates because they indiscriminately capture true variance as well as method variance; Richardson, Simmering, & Sturman, 2009). The model fit indices in Table 2 show that a thirteen-factor model including the method factor fitted the data slightly but significantly better than the initial twelve-factor model (at the expense of only one degree of freedom). Importantly, all construct factor loadings remained significant in the thirteen-factor model even when method variance was factored out. On average, the construct factors accounted for 61% of the variance, whereas the average method variance was only 2%. Given that the model comparison indicated superior fit when including the method factor, this factor was also controlled for in the analyses of the structural model.

Together, these analyses support the convergent and discriminant validity of our measures and suggest that common method variance was not a major issue in our data.

Test of Structural Model

Given that the measurement model produced a satisfactory fit, we tested the hypothesized structural model. In this model, structural relationships between the latent variables were added as shown in Figure 1. In addition, all distal independent variables were allowed to co-vary and the demographic variables were included as control variables, as was the method factor (as specified above). The goodness-of-fit indices show that overall our hypothesized integrative model of job search behavior provided a satisfactory fit to the data,

$\chi^2(704) = 2,213.73; p < .01; CFI = .918; TLI = .901; RMSEA = .046, SRMR = .045.$

First, we inspected the relationships between the distal variables and the psychosocial determinants of job search intention from the TPB. Figure 2 shows that conscientiousness (.18, $p < .01$), employment commitment (.44, $p < .01$), financial need (.15, $p < .01$), and social support (.20, $p < .01$) were positively related to instrumental job search attitude, whereas core self-evaluations was negatively related (-.11, $p < .05$). This provides support for Hypotheses 1a, 1c, 1d, and 1e, but not for Hypothesis 1b. With respect to affective job search attitude, core self-evaluations (.23, $p < .01$) was a positive predictor but extraversion (.05, $p > .05$) was not significantly related. Therefore, Hypothesis 2b was supported but Hypothesis 2a was not. Financial need (.31, $p < .01$) and social support (.23, $p < .01$) were positively related to subjective norm, supporting Hypotheses 3a and 3b. Job search self-efficacy was positively predicted by extraversion (.13, $p < .01$), conscientiousness (.28, $p < .01$), core self-evaluations (.09, $p < .05$), and social support (.26, $p < .01$), consistent with Hypotheses 4a-d.

Next, the results displayed in Figure 2 indicate that instrumental job search attitude (.20, $p < .01$), affective job search attitude (.17, $p < .01$), subjective norm (.08, $p < .05$), and job search self-efficacy (.51, $p < .01$) were all positively related to job search intention, in support of Hypotheses 5a-d. Finally, consistent with Hypothesis 6, job search intention was positively related to job search behavior (.35, $p < .01$).

Together, these results support an integrative model of job search behavior in which distal individual difference and situational variables precede and differentially predict instrumental job search attitude ($R^2 = .42$), affective job search attitude ($R^2 = .11$), subjective norm ($R^2 = .21$), and job search self-efficacy ($R^2 = .42$). In turn, the proximal TPB variables predict job search intention ($R^2 = .43$), which subsequently predicts job search behavior ($R^2 = .17$).

Test of Mediation

To test our hypotheses involving mediation (Hypotheses 7 and 8), we relied on estimates of indirect and total indirect effects using the INDIRECT procedure in Mplus 7 using 1000 bootstraps to estimate the 95% confidence intervals (Muthén & Muthén, 2012). The estimates of the indirect effects (and their 95% bootstrap confidence intervals) on job search behavior are reported in Table 3. First, we examined whether job search intention mediated the relationship of instrumental job search attitude, affective job search attitude, subjective norm, and job search self-efficacy with job search behavior (Hypothesis 7). To this end, we estimated the indirect effect of each TPB determinant on job search behavior through job search intention (see the upper pane of Table 3, labeled ‘Proximal’). Given that all confidence intervals excluded zero, we can conclude that instrumental job search attitude, affective job search attitude, subjective norm, and job search self-efficacy all had positive indirect effects on job search behavior through job search intention. In addition, none of the modification indices for possible direct effects of the TPB determinants on job search behavior had significant values. In support of Hypothesis 7, these results suggest that job search intention fully mediated the relationship of instrumental job search attitude, affective job search attitude, subjective norm, and job search self-efficacy with job search behavior.

Second, we examined whether the TPB variables mediated the relationship of the distal individual difference and situational variables with job search behavior. To this end, we estimated the indirect effect of each distal variable on job search behavior through each hypothesized TPB determinant (instrumental job search attitude, affective job search attitude, subjective norm, and/or job search self-efficacy) followed by job search intention as mediators in sequence, in line with our hypothesized integrative model shown in Figure 1. In addition, we estimated the total indirect effect of each distal variable on job search behavior through all hypothesized TPB determinants together. As shown in Table 3 (see the subtable

labeled 'Distal'), both extraversion and conscientiousness were indirectly positively related to job search behavior through job search self-efficacy (subsequently affecting job search intention). Core self-evaluations had an indirect positive effect on job search behavior through affective job search attitude and job search intention. Employment commitment and financial need were indirectly positively related to job search behavior through instrumental job search attitude and job search intention. Finally, social support had indirect positive effects on job search behavior through both instrumental job search attitude and job search self-efficacy followed by job search intention. In support of Hypothesis 8, these results suggest that all distal variables were indirectly related to job search behavior through the TPB variables. In addition, the modification indices (MI) and standardized Expected Parameter Change (EPC) values testing direct effects suggested one direct relation between a distal variable and job search behavior as well, namely for employment commitment ($MI = 7.35$, $EPC = .11$, $p < .01$). These results imply full mediation for extraversion, conscientiousness, core self-evaluations, financial need, and social support, and partial mediation for employment commitment.

Discussion

Implications for Theory

This study expands and integrates prior job search research by investigating the more distal predictors of the proximal TPB determinants of job search intention and by investigating whether the TPB variables mediate the effects of individual differences and situational factors on job search behavior. Overall, our results are supportive of the developed integrative model of the predictors of job search behavior.

As a first key contribution, we found that the individual difference and situational antecedent variables operated as distal variables that were differentially related to the proximal TPB determinants of job search intention (instrumental and affective job search

attitude, subjective norm, and job search self-efficacy), in line with Fishbein's (2000) integrative model of behavioral prediction. In fact, every distal variable was related to at least one of the TPB psychosocial variables and every TPB psychosocial variable related to at least one of the distal variables. Thus, our findings extend previous research on job search and the TPB by identifying individual differences and situational factors as important determinants of the TPB variables.

As a second key contribution, we found that all distal individual difference and situational variables were indirectly related to job search behavior and were mediated by the TPB determinants of job search intention, providing further support for the hypothesized integrative model of job search behavior. These findings are consistent with Fishbein's (2000) integrative model of behavioral prediction, positing that individual differences and situational variables play an indirect role in influencing behavior by affecting the beliefs underlying attitudes, subjective norm, and self-efficacy (Fishbein et al., 2003).

Whereas the TPB variables fully mediated most of the relationships between the distal variables and job search behavior, employment commitment and some demographic variables had direct effects as well. Whereas the present study focused on integrating *indirect* distal variables into TPB models of job search behavior, Fishbein's (2000) integrative model also extends the TPB in another way, by adding two other *direct* predictors of behavior. In particular, his model proposes that behavior is predicted not only by intention but also by skills and abilities required to perform the behavior as well as by environmental constraints that might prevent the performance of the behavior (Fishbein & Cappella, 2006). This is in line with some of the direct effects observed in our study. That is, college-educated individuals might possess better job search skills and abilities leading them to perform more job search behaviors than lower-educated job seekers. In addition, some aspects of blue-collar occupations (e.g., fewer formal job postings) might act as environmental constraints

preventing unemployed individuals from engaging in job search behaviors (Fishbein & Yzer, 2003).

Finally, with respect to the TPB variables, we found that instrumental job search attitude, affective job search attitude, subjective norm, and job search self-efficacy were positively related to job search intention, with job search self-efficacy emerging as the strongest predictor. In turn, job search intention predicted job search behavior and fully mediated the relationship of all TPB determinants with job search behavior. Whereas we found that job search self-efficacy was the strongest predictor of job search intention, the results of previous empirical research have been mixed with respect to this relationship (Song et al., 2006; Van Hooft et al., 2005). We believe this might be due to the different ways in which job search self-efficacy has been measured. This study was the first to use commensurate measures, in line with Ajzen's (1991) requirement for accurate prediction that measures of self-efficacy and intention must correspond to the behavior of interest. The strong relationships between job search self-efficacy, intention, and behavior in our study support the logical assumption that job seekers are more likely to engage in specific job search behaviors if they have the intention to perform those same behaviors and if they feel confident about doing so successfully. Therefore, future research should use job search self-efficacy measures that are consistent with the job search activities included in measures of job search intention and behavior.

In addition, whereas previous research on job search and the TPB has typically measured only instrumental job search attitude (e.g., Zikic & Saks, 2009), we found that job search attitude was better represented by a two-factor structure distinguishing between its instrumental and affective component (see confirmatory factor analyses in Table 2). Moreover, instrumental and affective attitude were not significantly related to each other and demonstrated a different pattern of relationships with the distal variables. This suggests that

affect-related variables represent a valuable contribution to job search research and practice (Côté et al., 2006). Furthermore, the distal variables explained substantially more variance in instrumental attitude than in affective attitude. Therefore, future research should attempt to identify additional predictors of affective job search attitude such as positive affect or emotional intelligence.

Limitations

This study has some limitations that call for caution in the interpretation and generalization of the results. First, even though the measurement of job search behavior was separated in time from its predictors, the distal and TPB variables were measured at the same time by self-report. As a result, the relationships between these variables might be partly a result of common method variance. However, in line with recommendations (Podsakoff et al., 2003), several precautions were taken to reduce common method variance such as the application of a procedure aimed at protecting participant confidentiality and reducing evaluation apprehension, the use of valid and sound scales from previous research, the inclusion of both positively and negatively worded items, and the use of different response scales. In addition, confirmatory factor analyses supported the discriminant validity of our measures and suggested that common method variance was not a major issue. Nonetheless, we controlled for a common method factor when testing our structural model.

Furthermore, given that the distal and TPB variables were measured at the same time, we cannot draw causal conclusions with respect to the relationships between these variables. However, our approach is consistent with Fishbein's (2000) integrative model of behavioral prediction, which treats individual difference variables and situational factors as distal variables that play an indirect role in influencing behavior by affecting the beliefs underlying the more proximal TPB variables. Nonetheless, it would be interesting for future research to apply a design with multiple time waves (e.g., Sun, Song, & Lim, 2013), separating the

measurement of distal and proximal predictors in time. In addition, such a multiple time wave design would allow to better grasp the self-regulatory and dynamic nature of job search (Wanberg, Zhu, Kanfer, & Zhang, 2012).

Finally, our sample consisted of unemployed job seekers in Flanders. Future research should investigate the applicability of our integrative model for predicting job search behavior in other settings, countries, and populations (e.g., employed job seekers).

Directions for Future Research

To further develop and expand our integrative model of job search behavior, we suggest the following avenues for future research. First, future research might investigate how additional distal variables that have recently been shown to be important for job search fit into an integrative model of job search behavior. Examples of relevant variables are job search goals (Van Hove & Saks, 2008), action-state orientation (Wanberg, Zhu, & Van Hooft, 2010), career-relevant activities (Zikic & Saks, 2009), positive emotions (Turban et al., 2009), cultural values (Van Hooft & De Jong, 2009), learning-goal orientation (Noordzij, Van Hooft, Van Mierlo, Van Dam, & Born, 2013), and social networks (Van Hove, Van Hooft, & Lievens, 2009).

Another interesting topic for future research is to investigate how skills and abilities as well as environmental constraints predict job search behavior in addition to job search intention, in line with Fishbein's (2000) additional extension of the TPB. While we observed direct effects of education and occupation on job search behavior, future research might expand the variance explained in job search behavior by investigating additional abilities and constraints. For instance, job seekers with better computer skills seem more likely to use the internet for job search whereas individuals with better self-presentation skills might spend more time on drafting resumes and contacting employers. With respect to environmental constraints, low labor market demand and employer discrimination might have negative

effects on job search behavior (Wanberg et al., 2002).

Finally, recent research has moved beyond focusing on the mere intensity or quantity of job search behavior by also considering job search quality. Along these lines, Van Hooft, Wanberg, and Van Hooft (2013) proposed that a high-quality job search consists of a highly self-regulated process, starting with goal establishment and followed by planning, goal striving, and reflection. Whereas the current study captures some elements of planning (forming job search intentions) and goal striving (performing job search behaviors), future research should try to incorporate all four phases, including goal establishment (e.g., selecting a job search goal) and reflection (e.g., evaluation of job search performance).

Implications for Practice

The results of this study have some important implications for job seekers, career counselors, and policy makers. With respect to job search attitudes, we found that, in addition to instrumental job search attitude that has been studied more often, affective job search attitude was also positively related with job search intention subsequently affecting job search behavior. Therefore, it seems important to stimulate job seekers to focus on positive aspects of job search that they might enjoy, such as a better understanding of one's qualifications and aspirations or getting to know new people and companies. In addition, regularly administering self-rewards for successfully performing job search activities might help to maintain high levels of affective attitudes (Van Hooft et al., 2013).

Furthermore, our results highlight the importance of social support, as it influences job search behavior by affecting the beliefs underlying job seekers' instrumental job search attitude as well as job search self-efficacy. Therefore, it seems worthwhile to involve family members in job search counseling to the extent that they are made aware of how important it is for them to encourage and motivate the job seeker to search for and find employment and to provide continuous emotional and social support throughout the process.

In addition, among the distal variables, social support seems to be the one that can most easily be affected by job search interventions, for instance by creating job clubs in which job seekers can support and encourage each other. Nonetheless, the other distal variables can also prove useful by identifying risk groups of unemployed individuals most likely to benefit from specific interventions. For instance, given that job search self-efficacy was related most strongly to job search intention, career counselors might develop programs aimed at strengthening job seekers' self-efficacy beliefs. In this respect, our findings suggest that job seekers lower in extraversion, conscientiousness, core self-evaluations, and social support may be in particular need of such a program.

Conclusion

In conclusion, this study contributes to the job search literature by integrating individual difference and situational variables as well as the variables from the theory of planned behavior in a comprehensive model of job search behavior, based on Fishbein's (2000) integrative model of behavioral prediction. The results support an integrative model of job search behavior in which individual difference and situational variables predict job search attitudes, subjective norm, and job search self-efficacy, whereas the TPB variables mediate the effects of individual difference and situational variables on job search behavior. Future research that investigates additional distal variables as well as possible direct effects of abilities and environmental constraints is needed to complement and expand our model.

References

- Adams, G., & Rau, B. (2004). Job seeking among retirees seeking bridge employment. *Personnel Psychology, 57*, 719-744.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology, 40*, 471-499.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1-26.
- Blau, G. (1994). Testing a two-dimensional measure of job search behavior. *Organizational Behavior and Human Decision Processes, 59*, 288-312.
- Boswell, W. R., Zimmerman, R. D., & Swider, B. W. (2012). Employee job search: Toward an understanding of search context and search objectives. *Journal of Management, 38*, 129-163.
- Brown, D. J., Cober, R. T., Kane, K., Levy, P. E., & Shalhoop, J. (2006). Proactive personality and the successful job search: A field investigation with college graduates. *Journal of Applied Psychology, 91*, 717-726.
- Conner, M., & Abraham, C. (2001). Conscientiousness and the Theory of Planned Behavior: Toward a more complete model of the antecedents of intentions and behavior. *Personality and Social Psychology Bulletin, 27*, 1547-1561.
- Conner, M., & Armitage, C. J. (1998). Extending the Theory of Planned Behavior: A review and avenues for further research. *Journal of Applied Social Psychology, 28*, 1429-1464.
- Costa, P. T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the Revised NEO Personality Inventory. *Journal of Personality*

- Assessment*, 64, 21-50.
- Côté, S., Saks, A. M., & Zikic, J. (2006). Trait affect and job search outcomes. *Journal of Vocational Behavior*, 68, 233-252.
- Ellis, R. A., & Taylor, M. S. (1983). Role of self-esteem within the job search process. *Journal of Applied Psychology*, 68, 632-640.
- Fishbein, M. (2000). The role of theory in HIV prevention. *Aids Care*, 12, 273-278.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fishbein, M., & Cappella, J. N. (2006). The role of theory in developing effective health communications. *Journal of Communication*, 56, S1-S17.
- Fishbein, M., Hennessy, M., Yzer, M., & Douglas, J. (2003). Can we explain why some people do and some people do not act on their intentions? *Psychology, Health & Medicine*, 8, 3-18.
- Fishbein, M., & Yzer, M. C. (2003). Using theory to design effective health behavior interventions. *Communication Theory*, 13, 164-183.
- Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five factor structure. *Journal of Personality and Social Psychology*, 59, 1216-1229.
- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality Psychology in Europe*, Vol. 7 (pp. 7-28). Tilburg, The Netherlands: Tilburg University Press.
- Goodman, J. S., & Blum, T. C. (1996). Assessing the non-random sampling effects of subject attrition in longitudinal research. *Journal of Management*, 22, 627-652.
- Hall, R. J., Snell, A. F., & Foust, M. S. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational*

- Research Methods*, 2, 233-256.
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424-453.
- International Personality Item Pool (2001). *A scientific collaboratory for the development of advanced measures of personality traits and other individual differences* (<http://ipip.ori.org/>). Internet web site.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits – self-esteem, generalized self-efficacy, locus of control, and emotional stability – with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86, 80-92.
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self-evaluations scale: Development of a measure. *Personnel Psychology*, 56, 303-331.
- Judge, T. A., & Ilies, R. (2002). Relationship of personality to performance motivation: A meta-analytic review. *Journal of Applied Psychology*, 87, 797-807.
- Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology*, 86, 837-855.
- Maydeu-Olivares, A., & Coffman, D. L. (2006). Random intercept item factor analysis. *Psychological Methods*, 11, 344-362.
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus User's Guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Noordzij, G., Van Hooft, E. A. J., Van Mierlo, H., Van Dam, A., & Born, M. P. (2013). The effects of a learning-goal orientation training on self-regulation: A field experiment among unemployed job seekers. *Personnel Psychology*, 66, 723-755.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method

- biases in behavioral research: A critical view of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Richardson, H. A., Simmering, M. J., & Sturman, M. C. (2009). A tale of three perspectives examining post hoc statistical techniques for detection and correction of common method variance. *Organizational Research Methods*, 12, 762-800.
- Song, Z., Wanberg, C., Niu, X., & Xie, Y. (2006). Action-state orientation and the theory of planned behavior: A study of job search in China. *Journal of Vocational Behavior*, 68, 490-503.
- Stanton, J. M., & Rogelberg, S. G. (2001). Using internet/intranet web pages to collect organizational research data. *Organizational Research Methods*, 4, 200-217.
- Stumpp, T., Hülshager, U. R., Muck, P. M., & Maier, G. W. (2009). Expanding the link between core self-evaluations and affective job attitudes. *European Journal of Work and Organizational Psychology*, 18, 148-166.
- Sun, S., Song, Z., & Lim, V. K. G. (2013). Dynamics of the job search process: Developing and testing a mediated moderation model. *Journal of Applied Psychology*, 98, 771-784.
- Turban, D. B., Stevens, C. K., & Lee, F. K. (2009). Effects of conscientiousness and extraversion on new labor market entrants' job search: The mediating role of metacognitive activities and positive emotions. *Personnel Psychology*, 62, 553-573.
- Van Hooft, E. A. J., Born, M. P., Taris, T. W., & Van Der Flier, H. (2004a). Job search and the theory of planned behavior: Minority-majority group differences in The Netherlands. *Journal of Vocational Behavior*, 65, 366-390.
- Van Hooft, E. A. J., Born, M. P., Taris, T. W., & Van Der Flier, H. (2005). Predictors and outcomes of job search behavior: The moderating effects of gender and family situation. *Journal of Vocational Behavior*, 67, 133-152.

- Van Hooft, E. A. J., Born, M. P., Taris, T. W., Van Der Flier, H., & Blonk, R. W. B. (2004b). Predictors of job search behavior among employed and unemployed people. *Personnel Psychology, 57*, 25-59.
- Van Hooft, E. A. J., & De Jong, M. (2009). Predicting job seeking for temporary employment using the theory of planned behaviour: The moderating role of individualism and collectivism. *Journal of Occupational and Organizational Psychology, 82*, 295-316.
- Van Hooft, E. A. J., Wanberg, C. R., & Van Hove, G. (2013). Moving beyond job search quantity: Towards a conceptualization and self-regulatory framework of job search quality. *Organizational Psychology Review, 3*, 3-40.
- Van Hove, G., & Lootens, H. (2013). Coping with unemployment: Personality, role demands, and time structure. *Journal of Vocational Behavior, 82*, 85-95.
- Van Hove, G., & Saks, A. M. (2008). Job search as goal-directed behavior: Objectives and methods. *Journal of Vocational Behavior, 73*, 358-367.
- Van Hove, G., Van Hooft, E. A. J., & Lievens, F. (2009). Networking as a job search behaviour: A social network perspective. *Journal of Occupational and Organizational Psychology, 82*, 661-682.
- Van Ryn, M., & Vinokur, A. D. (1992). How did it work? An examination of the mechanisms through which an intervention for the unemployed promoted job-search behavior. *American Journal of Community Psychology, 20*, 577-597.
- Vinokur, A., & Caplan, R. D. (1987). Attitudes and social support: Determinants of job-seeking behavior and well-being among the unemployed. *Journal of Applied Social Psychology, 17*, 1007-1024.
- Wanberg, C. R. (2012). The individual experience of unemployment. *Annual Review of Psychology, 63*, 369-396.
- Wanberg, C. R., Glomb, T. M., Song, Z., & Sorenson, S. (2005). Job-search persistence

- during unemployment: A 10-wave longitudinal study. *Journal of Applied Psychology*, 90, 411-430.
- Wanberg, C. R., Hough, L. M., & Song, Z. (2002). Predictive validity of a multidisciplinary model of reemployment success. *Journal of Applied Psychology*, 87, 1100-1120.
- Wanberg, C. R., Zhu, J., Kanfer, R., & Zhang, Z. (2012). After the pink slip: Applying dynamic motivation frameworks to the job search experience. *Academy of Management Journal*, 55, 261-284.
- Wanberg, C. R., Zhu, J., & Van Hooft, E. A. J. (2010). The job search grind: Perceived progress, self-reactions, and self-regulation of search effort. *Academy of Management Journal*, 53, 788-807.
- Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, 52, 129-148.
- Zikic, J., & Saks, A. M. (2009). Job search and social cognitive theory: The role of career-relevant activities. *Journal of Vocational Behavior*, 74, 117-127.

Footnotes

¹ Both people who were still unemployed at Time 2 (reporting their job search behavior in the past three months) and people who had found a job (reporting their job search behavior until they found a job) were included in the analyses. However, when the analyses were repeated including only those who were still unemployed, largely similar results were obtained. Compared to people who had found a job, the relationships between employment commitment and instrumental job search attitude (.57, $p < .01$) and between job search intention and job search behavior (.48, $p < .01$) were significantly stronger for people who were still unemployed whereas the relationship between social support and instrumental job search attitude was somewhat weaker (.14, $p < .05$).

² Unemployment duration was not included as a control variable because 30% of the respondents did not answer this item, with comments suggesting that these were mostly recent graduates or job seekers in their first days of unemployment. However, when the analyses were repeated with unemployment duration as one of the control variables ($N = 733$), largely similar results were obtained. Only core self-evaluations was no longer a significant predictor of instrumental job search attitude (-.12, $p > .05$) and job search self-efficacy (.08, $p > .05$).

Table 1

Descriptive Statistics and Correlations Between Study Variables

Variable	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Gender ^a	.52	.50	.00	1.00	-																
2. Age	27.56	9.35	17.00	58.00	.07*	-															
3. Education: Primary school ^b	.12	.33	.00	1.00	-.03	.07*	-														
4. Education: College ^b	.27	.45	.00	1.00	.08*	.03	-.23**	-													
5. Recent graduate ^c	.32	.47	.00	1.00	-.07*	-.50**	-.16**	.16**	-												
6. Occupation ^d	.66	.47	.00	1.00	.25**	.01	-.23**	.39**	.11**	-											
7. Extraversion	3.61	.66	1.20	5.00	.06	-.08*	-.07*	.06	.06	.12**	-										
8. Conscientiousness	3.90	.52	2.10	5.00	.15**	.05	.03	-.01	-.04	.05	.38**	-									
9. Core self-evaluations	3.61	.57	1.33	5.00	.00	-.06	-.07*	.08*	.16**	.02	.43**	.54**	-								
10. Employment commitment	4.24	.59	1.00	5.00	.08*	-.10**	.03	.00	.01	.00	.17**	.36**	.13**	-							
11. Financial need	3.53	.79	1.00	5.00	.02	.03	.08*	-.14**	.01	-.07*	-.01	-.01	-.19**	.17**	-						
12. Social support	4.06	.78	1.00	5.00	.08*	-.21**	-.04	.04	.13**	.02	.26**	.33**	.29**	.29**	-.01	-					
13. Instrumental job search attitude	4.34	.59	1.00	5.00	.03	-.01	.00	.00	.00	.04	.16**	.30**	.10**	.45**	.19**	.30**	-				
14. Affective job search attitude	2.90	.93	1.00	5.00	.01	-.03	-.01	-.08**	.13**	.05	.16**	.16**	.24**	.04	-.04	.12**	.05	-			
15. Subjective norm	3.82	.96	1.00	5.00	-.15**	-.19**	.00	.00	.08*	-.03	.06	.03	-.05	.24**	.22**	.22**	.34**	-.01	-		
16. Job search self-efficacy	3.85	.59	1.70	5.00	.06*	-.07*	-.09**	.16**	.05	.25**	.36**	.42**	.37**	.22**	-.08*	.37**	.30**	.21**	.12**	-	
17. Job search intention	3.34	.72	1.00	5.00	.09**	-.07*	-.01	.05	.04	.17**	.26**	.39**	.24**	.32**	.03	.32**	.31**	.25**	.17**	.52**	-
18. Job search behavior	2.38	.67	1.00	4.60	.02	-.05	-.04	.09**	.04	.16**	.09**	.11**	.02	.18**	.05	.15**	.10**	.11**	.08*	.23**	.33**

Note. Due to listwise deletion of cases with missing values, $N = 1,003$.

^a 0 = male, 1 = female. ^b Omitted dummy category for education is high school. ^c 0 = no, 1 = yes. ^d 0 = blue-collar, 1 = white-collar.

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

Table 2

Comparison of Alternative Models Against the Hypothesized Measurement Model

Model	χ^2	<i>df</i>	<i>CFI</i>	<i>TLI</i>	<i>RMSEA</i>	<i>SRMR</i>	$\Delta\chi^2$ (vs. 1)	Δdf
1. Hypothesized twelve-factor measurement model	1,626.9**	528	.938	.926	.046	.042	-	-
2. Alternative one-factor model	12,154.5**	594	.348	.308	.139	.122	10,527.6**	66
3. Alternative three-factor model	10,011.3**	591	.469	.434	.126	.115	8,384.4**	63
4. Alternative eleven-factor model: Affective + instrumental job search attitude	3,277.0**	539	.846	.819	.071	.074	1,650.1**	11
5. Alternative eleven-factor model: Employment commitment + instrumental job search attitude	1,887.9**	539	.924	.911	.050	.044	261.0**	11
6. Alternative eleven-factor model: Conscientiousness + core self-evaluations	2,500.5**	539	.889	.871	.060	.054	873.5**	11
7. Alternative eleven-factor model: Job search self-efficacy + job search intention	2,301.5**	539	.901	.884	.057	.052	674.6**	11
8. Common method factor thirteen-factor model	1,618.5**	527	.938	.926	.045	.041	8.4**	1

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

Table 3

Standardized Estimates of Indirect Effects on Job Search Behavior (With Bootstrapped 95% Confidence Interval)

Antecedent				
Type	Antecedent and path		Estimate	95% CI
Proximal	Instrumental job search attitude		.069	[.039;.099]
	Affective job search attitude		.061	[.035;.088]
	Subjective norm		.026	[.001;.051]
	Job search self-efficacy		.178	[.130;.226]
Distal	Extraversion	Sum of indirect effects	.026	[.009;.043]
		Affective job search attitude	.003	[-.002;.009]
		Job search self-efficacy	.023	[.008;.038]
	Conscientiousness	Sum of indirect effects	.062	[.034;.091]
		Instrumental job search attitude	.012	[.000;.024]
		Job search self-efficacy	.050	[.026;.075]
	Core self-evaluations	Sum of indirect effects	.023	[-.001;.047]
		Instrumental job search attitude	-.008	[-.017;.002]
		Affective job search attitude	.014	[.006;.022]
		Job search self-efficacy	.017	[-.002;.035]
	Employment commitment	Sum of indirect effects	.031	[.014;.047]
		Instrumental job search attitude	.031	[.014;.047]
	Financial need	Sum of indirect effects	.018	[.005;.031]
		Instrumental job search attitude	.010	[.001;.019]
		Subjective norm	.008	[-.001;.017]
	Social support	Sum of indirect effects	.066	[.041;.091]
		Instrumental job search attitude	.014	[.005;.023]
		Subjective norm	.006	[-.001;.013]
		Job search self-efficacy	.047	[.026;.067]

Note. Only the hypothesized mediation paths are tested, as shown in Figure 1. This also implies that all paths include job search intention as a mediator (in sequence).

Figure Captions

Figure 1. Hypothesized integrative model of job search behavior.

Note. In addition to the displayed relationships, job search intention is expected to mediate the relationship of instrumental and affective job search attitude, subjective norm, and job search self-efficacy with job search behavior (Hypothesis 7) and instrumental and affective job search attitude, subjective norm, job search self-efficacy, and job search intention are expected to mediate the relationship of extraversion, conscientiousness, core self-evaluations, employment commitment, financial need, and social support with job search behavior (Hypothesis 8).

Figure 2. Standardized path coefficients for the hypothesized integrative model of job search behavior. * $p < .05$. ** $p < .01$.

Note. With respect to control variables, the following relations were significant: Affective job search attitude with college education ($-.17, p < .01$), recent graduate ($.15, p < .01$) and white-collar occupation ($.09, p < .05$); subjective norm with gender ($-.19, p < .01$) and age ($-.19, p < .01$); job search self-efficacy with gender ($-.07, p < .05$), college education ($.07, p < .05$), and white-collar occupation ($.24, p < .01$); job search intention with gender ($.06, p < .05$); job search behavior with college education ($.08, p < .05$) and white-collar occupation ($.13, p < .01$).