



Networking as a job search behaviour: A social network perspective

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Although networking is typically recommended as a job search strategy in the popular press, research on networking as a job search behaviour is scarce. On the basis of social network theory, the present study investigated whether the structure and composition of job seekers' social network determined their networking behaviour and moderated its relationship with job search and employment outcomes. The data were collected in a large, representative sample of 1,177 unemployed Flemish job seekers, using a two-wave longitudinal design. Job seekers with a larger social network and with stronger ties in their network spent more time networking, beyond individual differences in extraversion and conscientiousness. Networking explained incremental variance in job offers beyond job seekers' use of print advertising, the internet, and public employment services, but not in employment outcomes. Some evidence was found indicating that networking might be more effective for job seekers whose social network contains weaker and higher-status ties.

Even in good economic times, numerous people are confronted with job loss and need to search for new employment during their work life. Meta-analytic findings indicate that unemployed people experience lower mental health, physical health and life satisfaction than their employed counterparts (McKee-Ryan, Song, Wanberg, & Kinicki, 2005). Accordingly, there has been a substantial increase in research investigating job search behaviour and employment outcomes (Kanfer, Wanberg, & Kantrowitz, 2001).

To gather information about employment opportunities, job seekers can use various sources such as employment advertising, job sites and networking. Job search counsellors and popular job search books (Bolles, 2006) often advise job seekers to

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contact other people in their social network for information about jobs. This is in line with recruitment research indicating that learning about job opportunities through other people has a particularly beneficial impact on applicant attraction and employee attitudes in comparison with other sources (Collins & Stevens, 2002; Saks, 2005b; Van Hove & Lievens, 2005; Zottoli & Wanous, 2000). In contrast, job search research has typically measured job search behaviour at a composite level, without distinguishing between various sources of job information (Kanfer *et al.*, 2001; for a notable exception see Wanberg, Kanfer, & Banas, 2000). Hence, relatively little is known about the determinants and outcomes of specific job search behaviours such as networking.

Given that networking requires job seekers to contact their social network, the characteristics of that network are likely to influence both the intensity and the outcomes of networking. Along these lines, social network theory has identified structure and composition as key elements of social networks (Adler & Kwon, 2002; Brass, Galaskiewicz, Greve, & Tsai, 2004; Burt, 1992, 1997; Granovetter, 1973, 1995; Lin, 1999; Mouw, 2003). However, previous research on job seeking has focused exclusively on individual difference determinants of networking (Tziner, Vered, & Ophir, 2004; Wanberg *et al.*, 2000) and has ignored potential moderators of the effects of networking on employment outcomes. Therefore, we do not know whether job seekers with a larger or better composed social network are more likely to use that network in their job search. In addition, it is unclear to what extent the effectiveness of networking might depend on the characteristics of job seekers' social network.

The current study applies a social network perspective to investigate the relationship between social network characteristics and job seekers' use of networking as a job search strategy. Consistent with recruitment research (Zottoli & Wanous, 2000), networking is distinguished from other specific job search behaviours commonly used by job seekers (i.e. print advertising, the internet, and public employment services). We extend previous job search research by examining whether the structure and composition of job seekers' social network determine their networking behaviour and moderate its relationship with employment outcomes (i.e. number of job offers, employment status and job-organization fit).

Definition of networking as a job search behaviour

Networking behaviour is generally defined as 'individuals' attempts to develop and maintain relationships with others who have the potential to assist them in their work or career' (Forret & Dougherty, 2001, p. 284). Applied to a job search context, networking is defined as 'individual actions directed towards contacting friends, acquaintances, and other people to whom the job seeker has been referred for the main purpose of getting information, leads, or advice on getting a job' (Wanberg *et al.*, 2000, p. 492).

A better understanding of networking can be obtained by framing it with respect to two classifications of job search behaviours applied in previous research. First, according to the formal-informal classification (Saks & Ashforth, 2000; Zottoli & Wanous, 2000), networking can be defined as a specific type of informal job search behaviour. Informal job search does not rely on formal intermediaries and consists of contacting friends, relatives, or acquaintances; contacting current or former employees; re-hires; and walk-ins. Conversely, formal job search uses formal intermediaries that exist primarily for recruitment purposes including employment agencies, recruitment

advertising, and campus recruitment. Second, with respect to the preparatory-active categorization (Blau, 1994; Saks & Ashforth, 2000), networking can be classified as a specific kind of preparatory job search behaviour. In fact, the job search process can be conceptualized as consisting of two sequential stages. Preparatory job search involves gathering information about potential job leads through various sources. Subsequently, active job search consists of contacting and applying to prospective employers.

Most previous research has assessed the frequency of networking behaviours (e.g. talking with friends about possible job leads) together with other specific job search behaviours (e.g. reading help wanted ads in newspapers) to produce a composite measure of general job search intensity (Kanfer *et al.*, 2001). Similarly, specific job search behaviours have generally been combined to measure overall preparatory versus active or formal versus informal job search intensity (Kanfer *et al.*, 2001; Zottoli & Wanous, 2000). To gain a better insight into its determinants and outcomes, the current study measures networking as a specific job search behaviour, separate from other specific job search behaviours. Analogous to previous research (Kanfer *et al.*, 2001; Van Hooft, Born, Taris, & Van der Flier, 2005a; Wanberg *et al.*, 2000), this study operationalizes networking as the amount of time job seekers spend on networking behaviours.

Characteristics of job seekers' social network

Social network theory focuses on relationships among actors (i.e. individuals, work units, or organizations) and thereby distinguishes itself from more traditional organizational research perspectives that examine individual actors in isolation (Brass *et al.*, 2004). The central premise underlying social network theory is that actors are embedded within networks of interconnected relationships that provide opportunities for and constraints on behaviour (Burt, 1997). Both the structure and composition of these social networks have been proposed as potential sources of social capital. In fact, there has been a long-standing debate among social network theorists between formalists emphasizing the importance of network structure and substantialists focusing on network content or composition (Borgatti & Foster, 2003). Adler and Kwon (2002) integrated both positions by defining social capital as 'the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor.' (p. 23). Supporting the importance of social networks, research has found social capital to be associated with the innovation, performance, and survival of groups and organizations, and with individual outcomes such as work attitudes, job performance, and finding employment (Brass *et al.*, 2004).

In light of social network theory, networking as a job search behaviour refers to the intentional use of an individual job seeker's social network with the purpose of finding a job. On the basis of both formalist and substantialist arguments, we expect that network structure as well as network composition will influence the intensity and the effectiveness of job seekers' networking behaviour.

According to the formalist perspective, the source of social capital is situated in the formal structure of the relationships or ties making up the social network (Adler & Kwon, 2002). A first important element of network structure is network size or the total number of people (i.e. alters) to whom an individual is tied (Seibert, Kraimer, & Liden,

2001). All else being equal, as job seekers' social network consists of more people, they should be more likely to contact some of those people in their job search.

Hypothesis 1: Network size will be positively associated with time spent networking.

A second key component of social network structure consists of the strength of the ties in the network (Brown & Konrad, 2001; Granovetter, 1973, 1995; Seibert *et al.*, 2001). Tie strength is defined as the closeness of the social relationship between the individual and other people in the network (Granovetter, 1973). Close friends are an example of strong ties, whereas seldom-contacted acquaintances represent weak ties (Brown & Reingen, 1987). Strong ties are typically more readily available than weak ties and result in more frequent interactions, increasing the likelihood that job information is provided (Reingen & Kernan, 1986). Along these lines, marketing research has found that people are more likely to network with strong ties than with weak ties to gather product information (Brown & Reingen, 1987; Gilly, Graham, Wolfenbarger, & Yale, 1998). Therefore, we expect job seekers with stronger ties in their social network to spend more time on networking in their job search.

Hypothesis 2: Tie strength will be positively associated with time spent networking.

Although job seekers might be more inclined to contact stronger ties for information about jobs, this may not be the most effective way to apply networking as a job search strategy. In fact, the formalist social network paradigm stresses the importance of weak ties in gathering information about job openings (Brown & Konrad, 2001; Brown & Reingen, 1987; Granovetter, 1995). Granovetter (1973) expressed this in his 'strength-of-weak-ties' proposition, stating that people to whom we are weakly tied are more likely to move in circles different from ours and thus have access to information different from that which we already receive. In other words, weak ties operate as a bridge between densely interconnected social cliques and therefore provide a source of unique information and resources (Seibert *et al.*, 2001). Other formalist theorists have argued that the positive effects of weak ties rest in the spanning of structural holes (i.e. alters who are not connected to each other) in the individual's social network (Burt, 1997; Kalish & Robins, 2006). This structural holes perspective proposes that being connected to many alters who are themselves unconnected to the other alters in the network will provide job seekers with more unique employment information and resources (Burt, 1992). Given that weak ties are typically connected to less alters in the network than strong ties, weak ties are more likely to offer job seekers nonredundant information (Burt, 1992; Gargiulo & Benassi, 2000; Kalish & Robins, 2006). Hence, we hypothesize that networking behaviour will be more positively related to job search and employment outcomes (i.e. number of job offers, employment status and job-organization fit, see next section) for job seekers with weaker ties in their social network.

Hypothesis 3: Tie strength will moderate the relationship of time spent networking with (a) number of job offers, (b) employment status, and (c) job-organization fit, so that this relationship will be more positive for job seekers with weaker ties in their social network.

Contrary to the formalist emphasis on network structure, the substantialist perspective focuses on the resources that flow through social ties and argues that the effects of tie structure depend entirely on the content of those ties (Lin, 1999). Tie content or network composition refers to the characteristics of the other people in

an individual's social network and reflects the quality of the resources (i.e. information) that they can provide (Adler & Kwon, 2002). For instance, unemployed persons are less likely to provide job seekers with relevant job information than employed people (Aguilera, 2002). Analogous to previous research, the current study operationalizes network composition in terms of the educational, occupational, and general life status of the ties within job seekers' social network (Aguilera, 2002; Brown & Konrad, 2001; Mouw, 2003; Reingold, 1999). We expect that job seekers will make more use of their social network if its composition is better (i.e. if it contains higher-status ties), offering them more valuable job-related information.

Hypothesis 4: Tie status will be positively associated with time spent networking.

In addition, the effect of using social ties in job search is likely to be determined by the content of those ties (Lin, 1999). In other words, the effectiveness of networking as a job search behaviour should depend on the characteristics of the contacted people. People with a higher educational, occupational, or general life status are likely to provide job seekers with more valuable job information (Aguilera, 2002; Reingold, 1999). Therefore, we expect that networking will be more positively related to job search and employment outcomes for job seekers with higher-status ties in their network.

Hypothesis 5: Tie status will moderate the relationship of time spent networking with (a) number of job offers, (b) employment status, and (c) job-organization fit, so that this relationship will be more positive for job seekers with higher-status ties in their social network.

Whereas previous research has demonstrated that job search behaviour is influenced by individual differences as well as by situational variables (Kanfer *et al.*, 2001; Wanberg, Hough, & Song, 2002), studies on the use of networking as a job search strategy have focused only on individual difference determinants (Tziner *et al.*, 2004; Wanberg *et al.*, 2000). Specifically, Wanberg *et al.* (2000) found that of all big five personality factors only extraversion and conscientiousness were significant predictors of networking intensity. Therefore, the present study aims to integrate the job search and social network literatures by investigating whether social network characteristics explain incremental variance in job seekers' networking behaviour beyond these individual differences in personality.

Hypothesis 6: Network size, tie strength, and tie status will explain incremental variance in time spent networking beyond extraversion and conscientiousness.

Outcomes of networking

Consistent with the conceptualization of job search as a phased process (Blau, 1994), the various outcomes used in job search research can be classified into three categories: (a) job search outcomes, (b) quantitative employment outcomes and (c) employment quality (Brasher & Chen, 1999; Saks, 2006; Wanberg *et al.*, 2002). Job search outcomes are the most proximal outcomes of job search behaviour and include job interviews and job offers (Brasher & Chen, 1999; Saks, 2006). Next, quantitative employment outcomes refer to outcomes such as employment status, employment speed and exhaustion of unemployment benefits (Brasher & Chen, 1999; Wanberg *et al.*, 2002; Wanberg *et al.*, 2000). Although finding employment represents the most critical

evaluation criterion for job search behaviour, the quality of employment should also be considered (Kanfer *et al.*, 2001). Not only does a lower-quality job have a negative effect on individual well-being, it also increases the likelihood that people will soon be looking for a new job (Saks & Ashforth, 2002; Wanberg, Kanfer, & Rotundo, 1999). Measures of employment quality include job-organization fit, job satisfaction and (intention to) turnover (Brasher & Chen, 1999; Saks & Ashforth, 2002; Wanberg *et al.*, 2002).

Several authors have argued that the effectiveness of job search behaviour depends on which of these evaluation criteria are used, as different relationships have been found for different types of outcomes (Brasher & Chen, 1999; Kanfer *et al.*, 2001; Saks, 2005a; Wanberg *et al.*, 2002). Therefore, we use indicators from all three categories to evaluate the effectiveness of networking in job search. Specifically, we investigate the relationship of time spent networking with number of job offers, employment status, and job-organization fit.

First, as a preparatory job search behaviour, more intensive networking is likely to produce more different job leads and more information about these job leads, enabling job seekers to submit more and presumably more informed applications and thus increasing their chances of receiving job offers and finding employment (Blau, 1994; Brasher & Chen, 1999). Along these lines, meta-analytic findings indicate that job search behaviour is positively related to number of job offers and to employment status (Kanfer *et al.*, 2001). We further hypothesize that networking will be positively associated with perceptions of job-organization fit (Saks & Ashforth, 2002; Wanberg *et al.*, 2002). As an informal job search behaviour, networking is likely to provide job seekers with more realistic information, allowing them to apply for jobs that better fit their interests and skills (Zottoli & Wanous, 2000). In fact, the main finding of more than three decades of recruitment source research has been that employees hired through informal sources have more positive work attitudes than employees hired through formal sources (Saks, 2005b; Zottoli & Wanous, 2000). Whereas Wanberg *et al.* (2000) found that networking behaviour was positively associated with employment status, we investigate whether this beneficial relationship can be extended to job offers and job-organization fit.

Hypothesis 7: Time spent networking will be positively associated with (a) number of job offers, (b) employment status, and (c) job-organization fit.

In addition, we expect that networking will explain incremental variance in these outcomes beyond other preparatory job search behaviours commonly used by job seekers. On the basis of composite job search measures from previous research (e.g. Blau, 1994; Kopelman, Rovenpor, & Millsap, 1992; see Method section for more details), three preparatory job search behaviours were identified for inclusion in the present study besides networking: looking at job ads in newspapers or journals (i.e. *print advertising*), visiting job sites and employer recruitment sites (i.e. *internet*), and using the services offered by public employment agencies (i.e. *public employment service*). Given its characteristics as an informal job search behaviour, networking is likely to provide job seekers with information about potential jobs that is nonredundant with information gathered by these other, more formal job search behaviours (Saks & Ashforth, 2000; Zottoli & Wanous, 2000).

Contrary to their expectations, Wanberg *et al.* (2000) found that networking did not explain incremental variance in employment status beyond general job search intensity. However, they used a composite measure of both preparatory and active job search behaviours to assess general search intensity. Given that active job search behaviour has

been found to mediate the relationship between preparatory job search behaviour and employment outcomes (Blau, 1994; Saks, 2006), it might be more appropriate to test the relative effectiveness of networking by examining its incremental value in explaining job search and employment outcomes beyond other *preparatory* job search behaviours.

Hypothesis 8: Hypothesis 8: Time spent networking will explain incremental variance in (a) number of job offers, (b) employment status, and (c) job-organization fit beyond job seekers' time spent using print advertising, internet, and public employment service.

Method

Participants and procedure

The data were collected in a two-wave longitudinal design in collaboration with the Public Employment Service in Flanders, the Dutch-speaking district of Belgium. 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 Centres across Flanders' five main regions. Workforce Centres represent a kind of 'one-stop shop' for job seekers, integrating all job search related services offered by different governmental agencies, including the Flemish Public Employment Service. Individuals filing for unemployment benefits are obliged to register as a job seeker with the Flemish Public Employment Service. When people registered as an unemployed job seeker on a self-service computer in one of the 35 selected Workforce Centres between May and September 2005, a pop-up screen appeared asking them to participate in a job search study. It was stressed that participation was voluntary and would in no way affect their official record, that answers would be treated confidentially, and that 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 click on a link leading them to a separate web-based (intranet) survey assessing Time 1 measures (control variables, personality, and social network characteristics). Following recommendations for web-based data collection strategies (Stanton & Rogelberg, 2001), the obtained 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 (about 10%). All of this resulted 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 this administration mode, scales for Time 2 measures (job search behaviours, job search and employment outcomes) were kept short. 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 their ages 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 getting fired (21%). Regarding occupation, 65% was looking for a white-collar job and 35% for a blue-collar job. At Time 2, 581 individuals (49%) were (re)employed. Of these, 29% said they had found their job through networking.

Of all Flemish job seekers who registered in 2005, 51% were women, the average age was 30 years, and 17% obtained a primary school degree, 60% a high school degree, and 23% a college degree. 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, $t(1,176) = -10.08$, $p < .01$, contained fewer people with a primary school degree, $\chi^2(1) = 17.24$, $p < .01$, and more people with a college degree, $\chi^2(1) = 38.57$, $p < .01$.

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, $\chi^2(11) = 35.50$, $p < .01$. Specifically, college educated ($\text{Exp}(B) = 1.43$, $p < .01$) job seekers with smaller ($\text{Exp}(B) = 0.84$, $p < .05$) social networks containing higher-status ties ($\text{Exp}(B) = 1.20$, $p < .01$) 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 network size (0.01) and tie status (0.13) represented only a small percentage of the range of these variables (0.3% and 2.6% respectively).

Time 1 measures

Personality. Both extraversion and conscientiousness were 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*, $\alpha = .81$). Items were rated on a 5-point rating scale, ranging from 1 = *completely disagree* to 5 = *completely agree*.

Social network characteristics. Previous research has typically measured social network characteristics using a name-generator methodology, in which participants are asked to list their social ties and subsequently to assess every tie on a number of characteristics (e.g. Seibert et al., 2001). Given the difficulties of collecting and scoring such data in a large-scale survey, we used items that were rated on a 5-point Likert-type scale, ranging from 1 = *completely disagree* to 5 = *completely agree* (for a similar approach, see Wanberg et al., 2002). Moreover, in line with previous research on social networks and job search (Brown & Konrad, 2001; Granovetter, 1973; Mouw, 2003), we did not measure the characteristics of job seekers' global social network but instead asked them to rate their more specific network of people who might help them find a job. All items are shown in the Appendix.

On the basis of previous research (Seibert et al., 2001; Wanberg et al., 2002), four items ($\alpha = .85$) were developed for measuring *network size*, which refers to the number of people to whom job seekers are tied who might help them find a job.

Tie strength was measured by three items ($\alpha = .78$) adapted from Brown and Konrad (2001). The first item reflects the general definition of tie strength as the closeness of the relationships in job seekers' social network (Brown & Reingen, 1987; Seibert et al., 2001). The other two items capture two specific dimensions of tie strength (Brown & Konrad, 2001). Specifically, the second item refers to frequency of contact (Granovetter, 1973) and the third item to intimacy (Brown & Konrad, 2001).

On the basis of previous research (Aguilera, 2002; Brown & Konrad, 2001; Mouw, 2003; Reingold, 1999), three items ($\alpha = .86$) were developed for measuring *tie status* or the status of the people to whom job seekers are tied who might help them find a job. The first item relates to educational status (Mouw, 2003; Reingold, 1999), the second to occupational status (Aguilera, 2002; Brown & Konrad, 2001; Mouw, 2003) and the third to general status in life (Aguilera, 2002; Mouw, 2003; Reingold, 1999).

Confirmatory factor analysis using EQS 6.1 (Bentler, 2003) showed an acceptable fit for this three-factor model, comparative fit index (CFI) = .953, root mean square error of approximation (RMSEA) = .073. In addition, the three-factor model fitted the data significantly better than a model in which all items loaded on one single factor, as this one-factor model produced a poor fit, CFI = .693, RMSEA = .178.

Control variables. On the basis of previous research (Kanfer *et al.*, 2001; Wanberg *et al.*, 2002), gender, age, education, reason for job search and occupation were used as control variables. Two dummy variables 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. Unemployment duration was not used as a control variable because participant remarks indicated that some interpreted the question 'How long have you been unemployed?' as time officially unemployed, others as time not working, and still others as time looking for a job. Moreover, 30% of the participants did not answer this item, with remarks suggesting that these were mostly recent graduates or job seekers in their first days of unemployment.

Time 2 measures

Job search behaviours. To identify preparatory job search behaviours, we scrutinized composite measures of job search behaviour used in previous research (Blau, 1994; Kanfer *et al.*, 2001; Kopelman *et al.*, 1992; Saks, 2006; Saks & Ashforth, 2000, 2002; Van Hooft *et al.*, 2005a; Wanberg, Glomb, Song, & Sorenson, 2005; Wanberg *et al.*, 2002; Wanberg *et al.*, 2000; Wanberg *et al.*, 1999). In addition to networking, items frequently referred to reading job advertisements in newspapers or journals (i.e. print advertising) and contacting a public employment agency. Recent studies supplemented these traditional job search behaviours with looking for job openings on the internet (e.g. Wanberg *et al.*, 2002). Next, we examined whether these four major job search behaviours identified in previous research were representative of the practice of job search in Flanders. To this end, we inspected Flemish (popular) job search publications, conducted a focus group with five consultants of the Flemish Public Employment Service, and interviewed 12 job seekers at a Workforce Centre. All of this confirmed that Flemish job seekers most commonly rely on *print advertising*, the *internet*, the *public employment service* and *networking* in their job search.

Given that the Time 2 phone survey needed to be short, each of these four search behaviours was measured with two items, developed on the basis of our inspection of previous research and Flemish job search practice. Two- and even one-item measures are not uncommon in the job search literature (e.g. Wanberg *et al.*, 2005) and previous research has demonstrated that such short measures of job search behaviour can be

valid (Barber, Daly, Giannantonio, & Phillips, 1994; Van Hooft, Born, Taris, Van der Flier, & Blonk, 2005b).

Specifically, job seekers were asked to indicate how much time they had spent on several job search activities in the past three months or until they found a job. Items were rated on a 5-point rating scale, ranging from 1 = *no time at all* to 5 = *very much time*. All items are shown in the Appendix.

On the basis of their intercorrelation, the two items within each scale were averaged to produce scale scores: print advertising ($r = .67, p < .01$), internet ($r = .74, p < .01$) and networking ($r = .83, p < .01$). The intercorrelation of the items measuring public employment services was somewhat lower ($r = .44, p < .01$), which might be explained by a slight difference between its two items. Whereas the job kiosks of the public employment service can be consulted in its offices and Workforce Centres, they can also be found in other publicly accessible locations such as libraries and shopping malls.

Confirmatory factor analysis showed a good fit for this four-factor model of job search behaviours, CFI = .998, RMSEA = .022. Moreover, the four-factor model fitted the data significantly better than a model in which all items loaded on one single factor, as this one-factor model produced a poor fit, CFI = .439, RMSEA = .284.

Job search and employment outcomes. With respect to job search outcomes, job seekers were asked to report the actual *number of job offers* they had received in the past three months (Kanfer et al., 2001; Saks & Ashforth, 2000). As a quantitative employment outcome, *employment status* was measured by asking participants whether they were (re)employed at Time 2 (Kanfer et al., 2001; Saks & Ashforth, 2000).

Only job seekers who found a job completed two items (Saks & Ashforth, 2002; Wanberg et al., 2002) to assess the perceived fit of their new job/organization with the job/organization they were looking for (*job-organization fit*), reflecting employment quality. A sample item is 'To what extent does your new job measure up to the kind of job you were seeking?'. Items were rated on a 5-point rating scale, ranging from 1 = *to a very little extent* to 5 = *to a very large extent*. On the basis of their intercorrelation ($r = .73, p < .01$), the two items were averaged to produce a scale score.

Results

Means, standard deviations, and correlations among all variables are presented in Table 1. Extraversion, network size, tie strength, and tie status were positively associated with the time job seekers spent networking. In addition, women spent slightly less time networking than men. Networking was positively related to number of job offers, but negatively related to employment status and job-organization fit.

To test whether social network characteristics explained incremental variance in time spent networking beyond individual differences in personality, a hierarchical regression analysis was performed. Similar to previous research predicting job search behaviour (e.g. Wanberg et al., 1999), only job seekers who were still unemployed at Time 2 were included in this analysis. Reemployed individuals were excluded as they were less likely to still spend time on job search behaviours at Time 2 given that they already found a job. After entering the control variables in the first step, extraversion and conscientiousness were added in the second step. In the final step, social network characteristics were entered into the equation. As shown in Table 2, the addition of

Table 1. Means, standard deviations, and correlations between study variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Time 1 variables</i>																		
1. Gender ^a	0.52	0.50	—															
2. Age	27.29	9.24	.07*	—														
3. Education: Primary school ^b	0.12	0.33	-.03	.08*	—													
4. Education: College ^b	0.29	0.45	.09**	.01	-.24**	—												
5. Recent graduate ^c	0.33	0.47	-.05	-.49**	-.17**	.19**	—											
6. Occupation ^d	0.65	0.48	.26**	.02	-.24**	.39**	.10**	—										
7. Extraversion	3.62	0.66	.05	-.08**	-.08**	.07*	.06	.13**	—									
8. Conscientiousness	3.90	0.51	.14**	.05	.02	.00	-.03	.06*	.38**	—								
9. Network size	2.74	0.93	-.13**	-.22**	-.08**	.02	-.19**	-.03	.22**	.08**	—							
1. Tie strength	2.95	0.95	-.07*	-.18**	-.04	-.03	.12**	-.02	.21**	.08**	.55**	—						
11. Tie status	3.49	0.87	-.04	-.14**	-.09**	.07*	.13**	.03	.20**	.15**	.44**	.45**	—					
<i>Time 2 variables</i>																		
12. Print advertising	2.75	1.13	.11**	.13**	-.02	.00	-.13**	.09**	.02	.07*	-.08**	-.04	.00	—				
13. Internet	2.73	1.37	.06	-.06*	-.10**	.27**	.10**	.31**	.07*	.06	-.01	.01	.06	.34**	—			
14. Public employment service	2.35	1.02	-.03	.01	.03	-.12**	-.08**	-.02	-.04	-.02	-.11**	-.04	-.06	.28**	.15**	—		
15. Networking	2.37	1.07	-.06*	-.05	.00	-.04	.02	.00	.10**	.05	.13**	.15**	.13**	.22**	.18**	.20**	—	
16. Number of job offers	3.47	6.06	-.09**	-.01	-.01	-.04	-.03	-.07*	.05	.01	.05	.04	.07*	.10**	.05	.11**	.13**	—
17. Employment status ^e	0.49	0.50	-.06	-.18**	-.10**	.03	.10**	-.07*	.04	.06*	.13**	.07*	.08**	-.13**	-.05	-.16**	-.06*	.09**
18. Job-organization fit	4.00	1.14	.08	.11**	.03	.01	-.11*	-.09*	-.02	.06	.06	.01	.07	-.12**	-.08*	-.05	-.09*	-.04

Note. N ranges from 1,105 to 1,177 for variables 1–6 (control variables). N = 1,177 for variables 7–11 (Time 1 determinants of networking). N ranges from 1,111 to 1,177 for variables 12–17 (Time 2 job search behaviours and outcomes for total sample). N = 571 for variable 18 (Time 2 outcome only for (re)employed individuals).

^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.

^e 0 = unemployed, 1 = employed.

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

Table 2. Hierarchical regression of networking on individual differences in personality and social network characteristics

Predictor	Step 1	Step 2	Step 3
<i>Control variables</i>			
Gender ^a	-.08	-.10*	-.08
Age	-.11*	-.10	-.07
Education: primary school ^b	.05	.04	.05
Education: college ^b	-.01	.00	-.01
Recent graduate ^c	-.04	-.05	-.07
Occupation ^d	.04	.01	.02
<i>Individual differences</i>			
Extraversion		.18**	.12*
Conscientiousness		.07	.07
<i>Social network characteristics</i>			
Network size			.12*
Tie strength			.11*
Tie status			-.03
R ²	.018	.061**	.091**
Adjusted R ²	.006	.046**	.071**
ΔR ²	.018	.043**	.030**

Note. $N = 505$. The values in the table are standardized beta weights (β).

^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.

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

individual differences in personality increased the variance explained in networking by 4.3%, $F(2, 496) = 11.42, p < .01$. Only extraversion emerged as a positive predictor. In support of Hypothesis 6, adding social network characteristics in the final step increased the explained variance by 3%, $F(3, 493) = 5.37, p < .01$. Both network size and tie strength were positive predictors of time spent networking, supporting Hypotheses 1 and 2. Contrary to Hypothesis 4, tie status did not significantly predict networking.

To test the moderating effects of tie strength and tie status as well as the incremental value of networking over the other job search behaviours, a series of moderated hierarchical regression analyses were performed. Whereas ordinary least squares regression analyses were conducted for number of job offers and job-organization fit, a logistic regression analysis was performed for employment status. Only job seekers who were (re)employed at Time 2 were included in the analysis for job-organization fit. In each analysis, the control variables were entered in the first step together with network size, tie strength, and tie status to control for their main effects. Job seekers' use of print advertising, internet, and public employment service were added in the second step. Time spent networking was entered separately in the third step. In the fourth and final step, we added the interactions between networking and social network tie strength and tie status. In line with recommendations for dealing with multicollinearity problems associated with the use of cross-product terms, the continuous variables in these moderated regression analyses were centred and the dichotomous variables were effects coded (Aiken & West, 1991).

In support of Hypothesis 8a, Table 3 shows that the addition of networking in the third step slightly increased the variance explained in number of job offers (0.4%), $F(1, 942) = 3.85, p < .05$. Job seekers who spent more time networking, received more job offers, supporting Hypothesis 7a. Contrary to Hypotheses 8b and 8c, networking did not explain incremental variance in employment status and job-organization fit. Time spent networking was not a significant predictor, failing to support Hypotheses 7b and 7c.

Regarding the hypothesized moderating effect of tie strength, Table 3 shows that the interaction of networking and tie strength was significant for perceived job-organization fit. In support of Hypothesis 3c, Figure 1 illustrates that time spent networking was more positively related to job-organization fit if the ties making up job seekers' social network were weaker. Specifically, simple slope analyses (Preacher, Curran, & Bauer, 2004) revealed that the relationship between networking and fit was not significant for weaker ties, $t(470) = 0.61, p > .05$, but was significantly negative for stronger ties, $t(470) = -2.63, p < .01$. The same results are observed when we look at the correlation between time spent networking and job-organization fit for job seekers with weaker ($r = .01, p > .05$) versus stronger ties ($r = -.22, p < .01$) in their social network (identified by a median split). Tie strength did not moderate the relationship of networking with number of job offers or employment status, failing to support Hypotheses 3a and 3b.

With respect to the hypothesized moderating effect of tie status, Table 3 indicates that the interaction of networking and tie status was significant for employment status. Consistent with Hypothesis 5b, Figure 2 illustrates that job seekers who spent more time networking were more likely to be (re)employed at Time 2 if the status of the ties in their social network was higher rather than lower. Simple slope analyses indicated that the relationship between networking and employment status was not significant for higher-status ties, $t(982) = 0.81, p > .05$, but was significantly negative for lower-status ties, $t(982) = -2.62, p < .01$. This is also reflected in the correlation between time spent networking and employment status for job seekers with higher-status ($r = .01, p > .05$) versus lower-status ties ($r = -.11, p < .05$) in their social network (identified by a median split). Contrary to Hypotheses 5a and 5c, tie status did not moderate the relationship of networking with number of job offers and job-organization fit.

Discussion

Extending previous job search research (Kanfer *et al.*, 2001; Wanberg *et al.*, 2000), the present study applied a social network perspective (Adler & Kwon, 2002; Brass *et al.*, 2004; Burt, 1992, 1997; Granovetter, 1973, 1995; Lin, 1999; Mouw, 2003) to investigate whether the number, the strength, and the status of the ties within job seekers' social network determined how much time they spent networking during their job search. In addition, tie strength and tie status were examined as moderators of the relationship between networking behaviour and its outcomes. A comprehensive assessment of the effectiveness of networking was made, with a job search outcome (i.e. number of job offers), a quantitative employment outcome (i.e. employment status), and an employment quality outcome (i.e. job-organization fit) as criterion variables (Brasher & Chen, 1999; Saks, 2006). Our hypotheses were tested in a large, representative sample of unemployed job seekers in Flanders, using a two-wave longitudinal design.

Table 3. Hierarchical regression of number of job offers, employment status, and job-organization fit on job search behaviours and interactions

Predictor	Number of job offers				Employment status ^e				Job-organization fit			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
<i>Control variables</i>												
Gender ^a	-.09*	-.09**	-.09*	-.09*	1.01	1.01	1.00	1.01	.12*	.13**	.12**	.13**
Age	-.01	-.01	-.01	-.01	.96**	.96**	.96**	.96**	.10	.11*	.12*	.12*
Education: Primary school ^b	-.02	-.02	-.02	-.02	.74**	.74**	.74**	.74**	.01	.01	.01	.01
Education: College ^b	-.02	-.02	-.02	-.01	1.16	1.13	1.13	1.14	.03	.03	.02	.02
Recent graduate ^c	-.03	-.02	-.02	-.03	1.03	1.01	1.01	1.00	-.08	-.09	-.09	-.09
Occupation ^d	-.03	-.05	-.05	-.05	.78**	.81**	.80**	.80**	-.10	-.10	-.10	-.10
Network size	.01	.03	.02	.02	1.23**	1.19	1.20*	1.20*	.11	.11	.11	.12*
Tie strength	.01	.01	.00	.01	.91	.92	.93	.92	-.05	-.06	-.05	-.05
Tie status	.06	.05	.05	.06	1.07	1.07	1.08	1.10	.08	.09	.10	.10
<i>Job search behaviours</i>												
Print advertising		.06	.05	.05	.89	.89	.90	.91	-.15**	-.14*	-.14*	-.13*
Internet		.07	.06	.06	.97	.97	.98	.98	.02	.02	.03	.02
Public employment service		.08*	.07*	.07	.80**	.80**	.81**	.81**	.01	.01	.02	.02
Networking			.07*	.07*	.93	.93	.93	.92		-.07	-.07	-.07
<i>Interactions</i>												
Networking × tie strength			.03	.03	.89	.89	.90	.91				-.11*
Networking × tie status			.05	.05	1.21*	1.21*	1.21**	1.21*				.03
R ²	.017	.039**	.043**	.048**					.054**	.072**	.076**	.086**
Adjusted R ²	.008	.027**	.030**	.032**					.036**	.048**	.050**	.057*
ΔR ²	.017	.022**	.004*	.005					.054**	.018*	.004	.010
χ ²					72.72(9)**	93.21(12)**	94.55(13)**	100.61(15)**				
Nagelkerke R ²					.094**	.119**	.121**	.128**				
Δχ ²					72.72(9)**	2.49(3)**	1.34(1)	6.06(2)*				

Note. N = 956 for number of job offers, N = 998 for employment status, and N = 486 for job-organization fit. The values in the table are standardized beta weights (β) for number of job offers and job-organization fit, and logistic regression odds ratios, Exp(B), for employment status. A significant odds ratio greater than 1 (<1) indicates that the odds of the outcome variable increase (decrease) when the predictor increases. Degrees of freedom for χ² are in parentheses.

^a - 1 = male, 1 = female.

^b Omitted dummy category for education is high school.

^c - 1 = no, 1 = yes.

^d - 1 = blue-collar, 1 = white-collar.

^e 0 = unemployed, 1 = employed.

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

Our study yields several important conclusions that contribute to the job search literature. First, the characteristics of job seekers' social network explained incremental variance in the time they spent networking beyond individual differences in extraversion and conscientiousness. Specifically, job seekers with a larger social network and with stronger ties in their network reported spending more time on networking during job search, suggesting that network structure is an important determinant of job seekers' networking behaviour (Adler & Kwon, 2002; Brown & Konrad, 2001; Burt, 1992; Granovetter, 1973). Furthermore, this corroborates previous research in other fields indicating that people interact and network more frequently with strong ties such as family and friends than with weak ties such as acquaintances (Brown & Reingen, 1987; Gilly *et al.*, 1998; Reingen & Kernan, 1986).

Second, extending previous research (Tziner *et al.*, 2004; Wanberg *et al.*, 2000), time spent networking was found to relate positively to number of job offers, and explained additional variance over time spent searching through print advertising, internet, and public employment services. Thus, job seekers who spent more time networking, received more job offers, regardless of their use of other job search behaviours. This suggests that networking as an informal job search behaviour provides job seekers with job information that is nonredundant with information gathered by more formal search behaviours (Saks & Ashforth, 2000; Zottoli & Wanous, 2000). However, the observed effects were small. In addition, networking was negatively related to quantitative and qualitative employment outcomes.

In fact, most of the job search behaviours in this study were negatively related to employment status and job-organization fit. Although these results were unexpected, non-significant or negative relationships between preparatory job search behaviours and employment outcomes are not uncommon in the literature (e.g. Saks, 2006; Saks & Ashforth, 2002). Along these lines, several authors have suggested that proximal job search outcomes such as the number of job interviews and job offers are more directly influenced by (preparatory) job search behaviour than distal outcomes such as employment status and employment quality (Saks, 2005a, 2006; Sverko, Galic, Sersic, & Galesic, 2008). Whereas job search behaviour should be most strongly related to job interviews, many other factors besides job search behaviour probably determine whether or not an individual actually obtains employment (Saks, 2006; Wanberg *et al.*, 2000). Research has found empirical support for such an unfolding model of job search success in which job search behaviour relates to job interviews, interviews lead to job offers, and more job offers results in a higher employment probability (Saks, 2005a, 2006; Saks & Ashforth, 2002). This also corresponds to the current study's findings, demonstrating that networking was positively related to job offers, with the latter being positively related to employment status.

Additionally, our findings suggest that the effectiveness of job search behaviours might be determined more by the quality with which they are performed than by their intensity. Spending much time on job search activities does not necessarily imply that job search is done effectively (Kanfer *et al.*, 2001; Wanberg *et al.*, 2002). For instance, a job seeker might find a job after contacting merely one valuable tie (e.g. a weak and high-status tie), whereas another might still be unemployed after contacting ten less relevant ties. This could explain why even though time spent networking was negatively related to employment status, 29% of the (re)employed individuals said they had found their job through networking.

Along these lines, our study extends previous job search research by examining the characteristics of job seekers' social networks as moderators of the relationship between

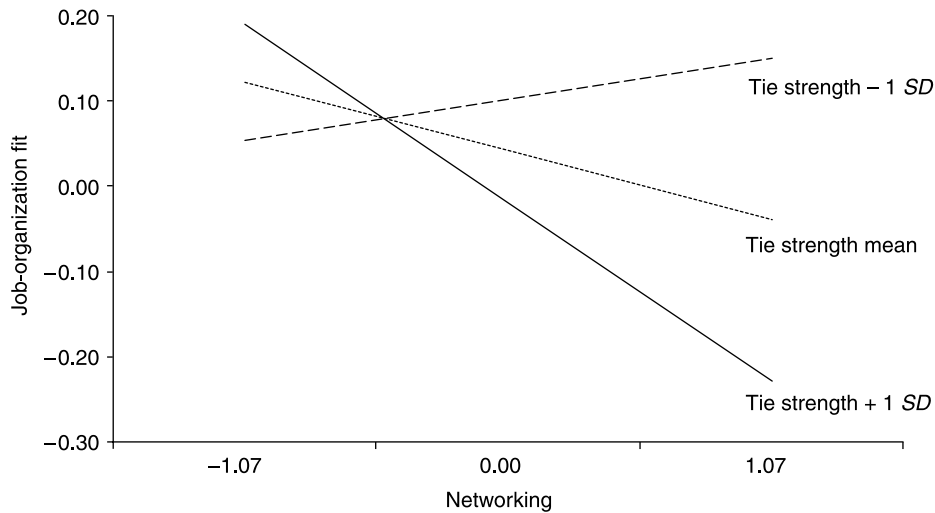


Figure 1. Interaction of networking and tie strength on job-organization fit.

networking and job search and employment outcomes (Kanfer *et al.*, 2001). The results support the idea that the effectiveness of networking behaviour might to some extent depend on the strength and the status of the ties within job seekers' social network. Supporting a substantialist view on social networks (Lin, 1999), time spent networking was only negatively related to employment status for job seekers with lower-status ties in their social networks. This is in line with the assumption that social ties with a higher educational, occupational, or general life status provide job seekers with more valuable job information, increasing the likelihood of finding employment (Aguilera, 2002; Reingold, 1999). In addition, time spent networking was only negatively related to job-organization fit for job seekers with stronger ties in their social network. This is consistent with the formalist 'strength-of-weak-ties' hypothesis, which states that weak

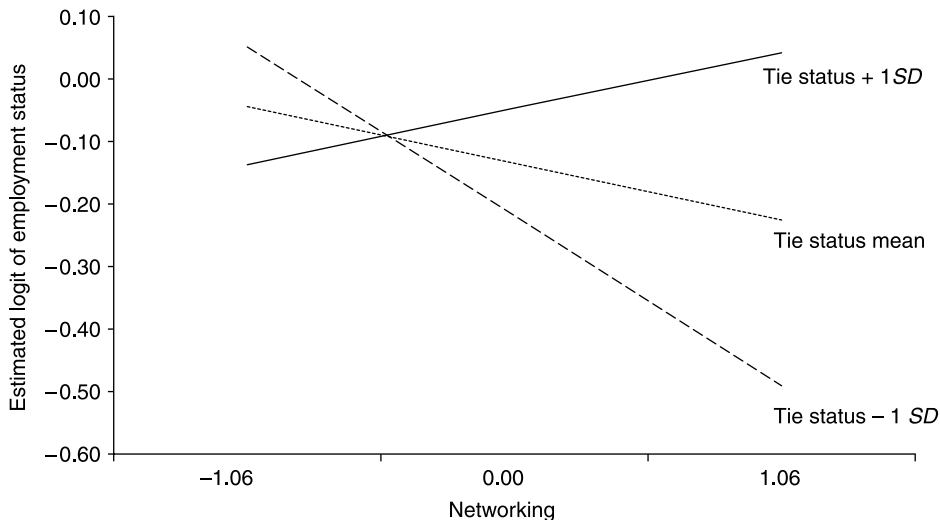


Figure 2. Interaction of networking and tie status on employment status.

ties are a better source of unique job information than strong ties, enhancing job seekers' chances of finding a higher-quality job (Brown & Konrad, 2001; Burt, 1992, 1997; Granovetter, 1973, 1995).

With respect to the above findings, our measurement of social network characteristics should be considered as a potential limitation. First, consistent with previous research on social networks and job search (Brown & Konrad, 2001; Granovetter, 1973; Mouw, 2003), our findings refer to the characteristics of job seekers' specific network of people who might help them find a job, which may differ from their global social network. Furthermore, while perceptual self-report measures are common in the job search literature (Kanfer *et al.*, 2001; Wanberg *et al.*, 2002), social network research has typically relied on more objective methods, such as a name-generator methodology in which participants list their social ties and assess every tie on a number of more objective characteristics (Aguilera, 2002; Reingold, 1999; Seibert *et al.*, 2001). This implies that our measure might refer more to job seekers' perceptions of their social network than to actual objective network characteristics (Janicik & Larrick, 2005). It would be interesting for future research to measure both perceived and actual social network characteristics in relation to job seekers' use of networking as a job search strategy. For instance, it might be that job seekers' networking behaviour is better predicted by their own perceptions of their social network, whereas its effectiveness may be determined more by objective network characteristics. In addition, future research could investigate which factors (e.g. personality, mood) determine job seekers' perceptions and subsequent use of their social network. Finally, the use of a name-generator method would allow the measurement of other social network characteristics that might relate to job seekers' networking, such as structural holes (Burt, 1992, 1997; Kalish & Robins, 2006) and network diversity (Aguilera, 2002; Lin, 1999).

In terms of other limitations, our choice of job search behaviours to include in the current study was based on a thorough inspection of previous research and the practice of job search in Flanders. Nonetheless, our results might have been different if we had included other behaviours such as contacting private employment agencies. Furthermore, our sample consisted of Flemish unemployed individuals who registered as a job seeker in one of the selected Workforce Centres. It might be that this specific context affected some of the observed relationships. Therefore, future research should examine the generalizability of our findings in other settings and countries. In addition, it would be interesting to investigate networking as a job search strategy in other samples of job seekers, such as students and employed job seekers, whose social network might have different characteristics (e.g. larger size) than the network of unemployed individuals.

With respect to theoretical implications, our findings demonstrate the value of integrating insights from social network theory into the job search literature. As noted above, future research might apply a name-generator method to further explore the relationship between social network characteristics and networking as a job search strategy. In addition, longitudinal research with multiple time waves or a diary design would help to better capture the dynamic nature of this relationship. For instance, in the current study we investigated whether social network characteristics at Time 1 predicted networking behaviour at Time 2. However, in turn, job seekers' networking behaviour might affect the characteristics of their social network measured at a later time (e.g. expand network). Finally, Adler and Kwon (2002) stated that the positive effects of social networks come from the information, influence, and solidarity they generate. Future studies on networking as a job search behaviour might investigate to

what extent these three factors mediate the effects of job seekers' networking behaviour on employment outcomes.

A particularly promising avenue for future job search research consists of examining additional moderators of the job search behaviour–outcome relationship (Wanberg *et al.*, 2002). Whereas the current study focused on social network characteristics as moderators of the relationship between networking behaviour and its outcomes, the manner in which social ties are contacted (e.g. too timid versus too pushy) also seems important. Future research could also investigate whether other aspects of the quality of networking (e.g. purposefulness, rapport building) influence the networking–outcome relationship. Moreover, these issues might be investigated for other search behaviours as well. For instance, with respect to print advertising, the quality and the diversity of the consulted newspapers and journals may moderate its effects on employment outcomes.

Furthermore, in the present study networking, print advertising, internet, and public employment service were only moderately correlated (r 's varied between .15 and .34; see Table 1), supporting their relevance as separate search behaviours. In addition, we observed differential relationships with antecedents and outcomes. Future research should therefore pay more attention to measuring specific job search behaviours. First, this would allow for a more profound and differentiated knowledge of the relationships of job search behaviours with antecedents and employment outcomes than measuring job search behaviour at a composite level (Kanfer *et al.*, 2001). Second, it would permit a more accurate picture of the relative efficacy of job search behaviours. Although recruitment source research has reported the source through which newly hired employees found their job, the job seekers who did not find jobs were not taken into account (Zottoli & Wanous, 2000).

Finally, several practical implications follow from our study. Contrary to popular wisdom, our findings suggest that networking is not a panacea. Whereas spending more time networking seems to be positively related to receiving job offers, networking might be negatively related to employment status and quality, especially for job seekers with stronger and lower-status ties in their network. Although further research is necessary, it seems wise for job seekers not to over-rely on networking as a single search strategy. In addition, job search counsellors should not only encourage job seekers to spend more time looking for a job, but should also follow-up on the quality with which these job search behaviours are being performed. In this respect, they should stimulate job seekers to locate high-status ties in their social network and to invest more time in networking with weaker ties because these ties are more likely to result in valuable job information, increasing the effectiveness of networking. Furthermore, job seekers with stronger ties in their network displayed a higher intensity of networking behaviours during job search. Therefore, organizations that want to attract potential applicants through word-of-mouth communication (Van Hove & Lievens, 2005), might benefit from 'spreading the word' through people to whom job seekers are closely tied, such as family and friends. For instance, a growing number of job sites are encouraging job seekers to forward interesting vacancies to their friends.

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Appendix

Measures of social network characteristics and job search behaviours

Variable	Items
<i>Social network characteristics</i>	
Network size	<ol style="list-style-type: none"> 1. I know a lot of people who might help me find a job. 2. I can count on many relatives, friends, or acquaintances for information about jobs. 3. I know few people who might help me search for employment (reverse coded). 4. I have connections I can talk to to help me find a job.
Tie strength	<p>Most people who might help me find a job:</p> <ol style="list-style-type: none"> 1. Are people I know very well, such as family or friends. 2. Are people I often talk to. 3. Are people I feel comfortable talking to, even about touchy subjects.
Tie status	<p>Most people who might help me find a job:</p> <ol style="list-style-type: none"> 1. Have received a good education. 2. Have a good job themselves. 3. Are generally doing well in life.
<i>Job search behaviours</i>	
Print advertising	<p>In the past three months or until you found a job, how much time have you spent on:</p> <ol style="list-style-type: none"> 1. Reading job advertisements. 2. Looking for jobs in newspapers or journals.
Internet	<ol style="list-style-type: none"> 1. Looking for jobs on the internet. 2. Visiting job sites or employer recruitment sites.
Public employment service	<ol style="list-style-type: none"> 1. Visiting a Workforce Centre or public employment agency. 2. Looking for jobs on a job kiosk of the public employment service.
Networking	<ol style="list-style-type: none"> 1. Contacting people you know to help you find a job. 2. Asking people you know about possible job leads.