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## ORIGINAL ARTICLE





# Contextual and personal resources in unemployed job search: An intra-individual perspective

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#### **Abstract**

Drawing from conservation of resources (COR) theory and the equifinality principle, we challenge the prominent "the-more-resources-the-better" understanding by examining both the additive and interactive effects of contextual (i.e., networking behaviors and social support) and personal (i.e., job search self-efficacy) resources on job seeking. Specifically, based on COR theory's resource gain corollary, we propose that higher levels of each resource are positively related to job search intensity and the number of interviews obtained (an additive effect). However, based on the equifinality principle that various resources can contribute to the same goal, we propose that each type of resource can compensate for low levels of the other (an interactive effect). In a four-wave study following 89 unemployed job seekers over 6 months, we find positive intraindividual relationships between networking behaviors and job search self-efficacy with job search intensity. We find that networking behaviors and job search selfefficacy are also positively related to the number of job interviews obtained and indirectly related through job

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search intensity for networking behaviors. In line with our predictions, high levels of either networking behaviors or job search self-efficacy compensate for low levels of the other resource when predicting job search intensity and the number of interviews obtained.

#### **KEYWORDS**

job search, networking behaviors, self-efficacy, social support, unemployment

#### INTRODUCTION

Unemployment is a critical life event associated with numerous aversive outcomes (e.g., McKee-Ryan et al., 2005; Wanberg, 2012), including impaired physical (McKee-Ryan et al., 2005) and psychological well-being (Gedikli et al., 2023; Paul & Moser, 2009). As such, unemployed individuals' primary goal is to regain suitable employment. Related to this key goal of finding a job, conservation of resources (COR) theory highlights the pivotal role of resources—referring to "objects, personal characteristics, conditions, and energies that are valued by the individual" (Hobfoll, 1989, p. 516) for goal accomplishment (see Halbesleben et al., 2014). Indeed, there is meta-analytic evidence (e.g., Kanfer et al., 2001) affirming that resources are vital for the job search process, with contextual resources (e.g., social support, networking behaviors) and personal resources (e.g., job search self-efficacy) being key antecedents for job search behavior. Contextual resources accrue from the social context in which an individual is embedded (Hobfoll, 2002; see also ten Brummelhuis & Bakker, 2012); they cover any form of support and guidance that external entities (i.e., other individuals or institutions) provide to an individual or that can be obtained through other individuals or institutions (Hobfoll et al., 1990, 2018; Lai et al., 1998; Lin, 1999). In contrast, personal resources refer to any aspects that are personally held by or that can be attributed to an individual (e.g., personal characteristics; Hobfoll, 2002) that help them achieve goals and foster growth (Bandura, 1986; Hobfoll et al., 2018).

Based on the aforementioned findings, one may assume that the more resources unemployed job seekers have, the better this is. Indeed, this reasoning also aligns with COR theory's resource gain principle, stating that individuals "with greater resources [...] are more capable of resource gain" (e.g., Hobfoll et al., 2018, p. 106). In the present study, we challenge the prominent "the-more-resources-the-better" understanding by providing a more nuanced understanding of this notion. In particular, we draw on the concept of equifinality that has been recently linked to COR theory (Halbesleben et al., 2014; see also Huang & Zhang, 2013; Kruglanski et al., 2011). Equifinality refers to the fact that various resources can contribute to the same goal, such that higher levels of one type of resource can compensate for lower levels of another (thus implying an interactive effect). The principle draws on the notion that resources are typically limited (Kanfer & Ackerman, 1989), which is particularly relevant for unemployed job seekers (Lim et al., 2016; Wanberg, 1997, 2012). For example, unemployed individuals have lower self-efficacy and fewer social contacts (e.g., Goldsmith et al., 1996; Jahoda, 1982; Selenko et al., 2011). In essence, the equifinality principle suggests a compensatory pattern when looking at interactive effects of different resources that contribute to the same goal.

In the present study, we thus examine both additive and interactive effects of contextual and personal resources in the job search process. We focus on two types of contextual resources (i.e., social support, referring to the provision of assistance from others, Vinokur & Caplan, 1987; and networking behavior whereby people establish and cultivate relationships with others, Van Hoye et al., 2009) as well as a personal resource (i.e., job search self-efficacy as a person's belief that they "can successfully perform specific job search behaviors and obtain employment," Saks et al., 2015, p. 105). We chose to focus on social support as a contextual resource an individual receives from others; in contrast, networking behavior is a more selfdirected use of one's social network that helps individuals obtain support and advice from others. Further, self-efficacy is a critical personal resource (Feldman et al., 2015; Laguna et al., 2017) in the job search context, where job seekers can continuously develop their belief in their capabilities by preparing for the job search, developing their job seeking skills, and practicing some of these skills (e.g., mock interviews) to gain confidence in their competence to conduct a successful job search. More precisely, we draw on conceptual models of the job search process (e.g., da Motta Veiga et al., 2018; Kanfer et al., 2001) suggesting that predictors (e.g., self-efficacy, social context) influence job search behaviors (e.g., intensity, effort), which, in turn, influence job search outcomes (e.g., number of interviews). Based on COR theory's resource gain principle, we first propose that all three resources additively contribute to a higher number of job interviews via fostering job search intensity. Connecting COR theory with the equifinality principle, we then propose that higher contextual resources can compensate for lower personal resources, or higher personal resources can compensate for lower contextual resources, when predicting job search intensity and number of interviews obtained. Figure 1 displays the conceptual model.



Time 2 through Time 4

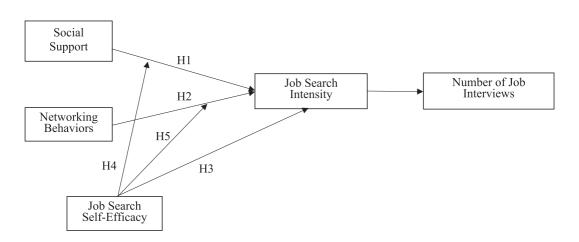


FIGURE 1 Summary of hypothesized relationships. *Note*: For clarity purposes, the indirect effects are omitted from this figure, including the indirect effects from social support, networking behaviors, and job search self-efficacy to the number of job interviews via job search intensity (H1b, H2b, and H3b). The moderated mediation hypothesis (H6) is also omitted from this figure. Social support, networking behaviors, and job search self-efficacy were measured in all four surveys (Time 1 through Time 4), whereas both job search intensity and the number of job interviews were measured in Surveys 2 through 4.

Importantly, we take an intra-individual lens whereby we examine fluctuations of these resources and their effects within individuals. More specifically, we examine whether higher levels of these resources within individuals at a given moment are associated with higher levels of job search intensity and number of interviews obtained. We explicitly chose this intraindividual approach for two reasons. First, the job search process has been conceptualized as an intra-individual, dynamic process (da Motta Veiga et al., 2018; Kanfer et al., 2001); likewise, many contextual and personal resources are not stable entities but fluctuate over time (e.g., Liu, Wang, et al., 2014; ten Brummelhuis & Bakker, 2012). By taking an intra-individual perspective, we apply an analytical approach that adequately matches the assumed theoretical process (see Mitchell & James, 2001). Second, most prior studies in the job search literature took an inter-individual perspective whereby the availability of certain resources and their impact were compared between individuals (e.g., Adams & Rau, 2004; Van Hoye et al., 2009). Our intraindividual design adds to the notion of generalizability within multilevel theory (Kozlowski & Klein, 2000) because it prevents the fallacy of inferring results which were found at a higher level of analysis (i.e., at the inter-individual level by comparing job seekers with more vs. less resources) to lower levels (e.g., Hox et al., 2017). We will test our theoretical model using a sample of 311 observations nested within 89 unemployed job seekers whom we surveyed four times over 6 months.

Our study contributes to the literature in three ways. First, our study adds to the job search literature by taking an intra-individual perspective that aligns with recent dynamic conceptualizations of the job search process (e.g., da Motta Veiga et al., 2018; van Hooft et al., 2021) and by considering the effects of multiple resources in combination. We thus provide a more nuanced understanding of their additive and interactive effects. In particular, we highlight that, when considered separately, contextual and personal resources are likely to influence the job search positively. Yet, by drawing on COR theory's linked concept of equifinality (e.g., Huang & Zhang, 2013; Kruglanski et al., 2011), we show the compensatory effects of contextual and personal resources. Taken together, we not only challenge the prominent understanding that the more resources the better, but we also point to a theoretical mechanism that has only recently been linked to COR theory (Halbesleben et al., 2014), yet which has, to our knowledge, never been empirically examined in a job search context.

Second, by linking COR theory with the job search context, we contribute to applying the theory to other contexts beyond stress experiences. Although COR theory is mostly used to explain stress processes, it is, at its core, a motivation theory (Halbesleben et al., 2014; Hobfoll et al., 2018) that is vitally concerned with successful resource investment and subsequent resource gains. In a related vein, we also address calls around COR theorizing (Halbesleben et al., 2014) for more research investigating self-regulatory mechanisms linked to the COR taking an intra-individual approach.

Finally, our study provides important practical advice for employment agencies, job search coaches, and unemployed job seekers. On the one hand, our study helps job coaches and employment agencies identify key resources in the job search process and tailor their support and training programs accordingly. On the other hand, job seekers may be more receptive to training targeted at contextual or personal resources. Based on the resource compensation effect, our study further suggests a differential perspective in that training may be targeted to job seekers' specific needs. Employment agencies may thus focus on one approach or type of resource training in their counseling based on job seekers' preferences—an aspect also particularly relevant in current times of cost pressure.

# THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

## COR theory in unemployed job search

COR theory is primarily concerned with individuals' motivation to conserve existing resources and acquire new resources. Within the theory, any entities are considered resources that may help individuals attain their goals (Halbesleben et al., 2014; Hobfoll, 1989, 2011). COR theory's resource gain corollary states that individuals better equipped with resources are more likely to obtain new resources (Hobfoll et al., 2018). This corollary helps us predict why higher levels of social support and networking behavior—as contextual resources that accrue from the social contexts in which individuals are embedded—as well as job search self-efficacy—as a personal resource that accrues from individuals themselves—would foster higher levels of job search intensity, ultimately leading to a higher number of job interviews.

## Social support and networking behavior in the job search process

Following COR theory, we propose that if individuals experience higher social support at a given time, this will encourage them to intensify their job search, which will further help them obtain more job interviews. Social support refers to the intangible/emotional and tangible assistance that people receive from partners, relatives, friends, and/or coworkers (House & Kahn, 1985; Taylor, 2011) and constitutes one of the most pertinent contextual resources (e.g., Halbesleben et al., 2014). By obtaining social support, individuals receive compassion and care from others and assistance in helping with a specific task or providing concrete advice. The intangible and tangible aspects of social support are crucial resources in the job search process. More precisely, due to the emotion regulation function of social support, individuals feel cared for and valued (Cobb, 1976). This feeling of being cared for and valued likely motivates job seekers to invest effort into their job search activities, thus fostering job search intensity. In addition, by receiving tangible assistance, job seekers gain help with concrete actions (as when searching for vacant positions or preparing their application documents), which should also foster their job search intensity.

Indeed, evidence indicates that social support during job search is positively related to job search behaviors (Adams & Rau, 2004), as well as job search frequency and intentions (Wanberg et al., 1996). It is important to note that these studies have taken an inter-individual, static approach to studying social support in job search. While evidence indicates that baseline levels of social support lead to stronger job search behaviors (Adams & Rau, 2004), we expect that intra-individual fluctuations in the amount of social support in a given job search period will be positively related to fluctuations in job search intensity. As such, we hypothesize that:

**Hypothesis 1a.** Higher levels of social support will be related to higher levels of job search intensity.

Next, individuals' intensity in their job search is likely to be rewarded with job interviews, such that higher social support should be indirectly related to higher numbers of job interviews through higher job search intensity. In line with this, the unfolding model of job search suggests that engaging in higher levels of intensity is likely to engender greater success in the job search

in terms of proximal outcomes (e.g., number of interview invitations; da Motta Veiga et al., 2018; van Hooft et al., 2021). As such, we expect that higher levels of social support that unemployed job seekers receive during their search for re-employment likely foster increased job search intensity, which, in turn, contributes to obtaining a greater number of job interviews. Concerning the latter part of our proposed mediational chain, research has shown that job search intensity is positively related to the number of job interviews on an intra-individual level (e.g., da Motta Veiga et al., 2020; Lopez-Kidwell et al., 2013; Sun et al., 2013). Moreover, the more time and effort job seekers invest in various job search behaviors (e.g., sending out resumes), the more likely they are to obtain job interviews (da Motta Veiga et al., 2018; Turban et al., 2013).

**Hypothesis 1b.** Higher levels of social support will be indirectly related to a higher number of job interviews via higher levels of job search intensity.

Second, following the above logic in line with COR theory, we propose that higher networking behavior will be related to individuals' higher job search intensity, which will be further related to higher numbers of obtained job interviews. Networking behavior is defined as "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). Although the behavior as such starts from within individuals themselves, networking behavior constitutes a contextual resource because it is only through the interaction with one's context (i.e., with others) that assistance and advice can be obtained. This definition is consistent with the idea that social networks and tapping into these networks are a source of informational advice (e.g., House & Khan, 1985). Indeed, scholars have argued that it is not the strength of contacts that conveys advantage but that such contacts are more likely to reach someone with the type of resource the individual requires (Lin, 1999). Therefore, a network member with characteristics or resources useful for helping the individual attain their goals can be considered a contextual resource (Seibert et al., 2001). In our case, network members who provide information on how and where to find a job or give job search advice are the relevant contextual resources for unemployed job seekers within their networks (Wanberg et al., 2000). Thus, networking behavior may foster job search intensity in a first step because those who spend more time networking with people who might give them advice about job openings (i.e., a source of informational support) are also more likely to spend time on various job search behaviors (e.g., applying for these recommended job openings).

There is evidence regarding the importance of networking behaviors in unemployment and job search. For example, Wanberg et al. (2000) found that networking intensity (i.e., the intensity invested in networking behaviors) was positively related to unemployed job seekers finding re-employment. In another study, Van Hoye et al. (2009) found that networking behaviors explained job offers beyond the use of formal and informal sources. Moreover, prior work by Wanberg et al. (2000) and Van Hoye et al. (2009) found positive relationships between networking behaviors and job seeking. However, these studies focused on measures of networking behaviors at only one moment, thus failing to capture how intra-individual fluctuations in networking behaviors relate to job search intensity. Specifically, to the extent that individuals invest more time and energy in networking during the job search at a given moment, they are expected to intensify their efforts to find a job.

**Hypothesis 2a.** Higher levels of networking behaviors will be related to higher levels of job search intensity.

As mentioned earlier, job search intensity is likely positively related to the number of job interviews, consistent with the unfolding job search model (da Motta Veiga et al., 2018; van Hooft et al., 2021). As such, we expect that the networking behaviors used by unemployed job seekers throughout their search for re-employment will likely lead to increased intensity in their job search, which, in turn, should lead to more job interviews.

**Hypothesis 2b.** Higher levels of networking behaviors will be indirectly related to a higher number of job interviews via higher levels of job search intensity.

# Job search self-efficacy in the job search process

Finally, consistent with prior research (Feldman et al., 2015; Laguna et al., 2017), we propose that job search self-efficacy is a critical personal resource for job seekers. As such, we propose that job search self-efficacy as a personal resource positively relates to job search intensity on an intra-individual level and that higher job search intensity positively relates to a higher number of obtained job interviews. Originating from social cognitive theory, self-efficacy captures an individual's belief in their capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1986, 1991, 2012). In line with this reasoning, job search self-efficacy thus captures a contextualized form of self-efficacy that is specifically tied to performing specific job search behaviors and obtaining employment (Saks et al., 2015). Concerning the underlying mechanism, social cognitive theory suggests that individuals' beliefs in their capabilities to perform specific tasks (i.e., self-efficacy) positively influence goal difficulty, motivation, and emotions. Specifically, individuals with higher intra-individual levels of selfefficacy tend to set higher goals and are more likely to persist throughout the job search by exerting more intensity, compared with individuals with lower levels of intra-individual selfefficacy who are more likely to give up or lower their goals and effort when faced with difficulties or failure (e.g., Bandura, 1991). In the present context, this reasoning thus suggests that if job seekers have higher levels of job search self-efficacy, this should motivate them to intensify their efforts to find new employment.

Indeed, considerable evidence indicates that self-efficacy is positively related to job search intensity on an intra-individual level (Liu, Wang, et al., 2014; Wanberg et al., 2005). For example, Wanberg et al. (2005) found a positive relationship between job search self-efficacy and subsequent job search intensity. In another study, Liu, Wang, et al. (2014) found that job search behavior self-efficacy was positively related to job search intensity, consistent with social cognitive theory (Bandura, 1991). Furthermore, two meta-analyses reported positive self-efficacy relationships with job search intensity and success (Kanfer et al., 2001; Liu, Wang, et al., 2014).

Hypothesis 3a. Higher levels of job search self-efficacy will be related to higher levels of job search intensity.

Since job search intensity is likely to be positively related to the number of job interviews (da Motta Veiga et al., 2018; van Hooft et al., 2021), we expect that unemployed job seekers' job search self-efficacy during their search for re-employment likely fosters increased job search intensity, which, in turn, should lead to more job interviews.

**Hypothesis 3b.** Higher levels of job search self-efficacy will be indirectly related to a higher number of job interviews via higher levels of job search intensity.

# Interaction of contextual and personal resources in unemployed job search

COR theory further stresses that the same goal can be attained through several different means (or resources), recently referred to as equifinality (Halbesleben et al., 2014). This principle of equifinality originally accrues from goal systems theory (Kruglanski et al., 2002), as well as research on goal setting and means to achieve specific goals (e.g., Huang & Zhang, 2013; Kruglanski et al., 2011). Specifically, the principle suggests that, if different resources contribute to the same goal, higher levels of one type of resource can compensate for lower levels of another when striving for that goal. Because unemployed job seekers suffer from scarce and limited resources (Lim et al., 2016; Wanberg, 1997, 2012), the idea of equifinality becomes especially pertinent, suggesting that individuals can offset or compensate for low contextual resources (i.e., social support and networking) when possessing high personal resources (i.e., job search self-efficacy), and vice versa.

We expect contextual and personal resources, therefore, to interact following the logic of equifinality, such that, intra-individually, higher levels of contextual resources (or personal resources) can compensate for lower levels of personal resources (or contextual resources). This reasoning implies that the highest level of job search intensity can be achieved when either contextual or personal resources are high and the other resource type is low or when both types of resources are high. Equifinality also implies that high levels of both types of resources do not lead to higher levels of job search intensity when one type of resource is high and the other is low. Taken together, we propose that higher levels of contextual (i.e., social support or networking) and personal resources (i.e., job search self-efficacy) will interact in such a way that the relationships between either resource and job search intensity are stronger when the level of the other resource is low, compared with when it is high.

**Hypothesis 4.** Higher levels of social support and job search self-efficacy will interact in such a way that the relationships between either resource and job search intensity are stronger when the level of the other resource is low, compared with high.

**Hypothesis 5.** Higher levels of networking behaviors and job search self-efficacy will interact in such a way that the relationships between one resource and job search intensity are stronger when the level of the other resource is low, compared with high.

As mentioned earlier, we expect job search intensity to be positively related to the number of job interviews (e.g., van Hooft et al., 2021). Combined with the equifinality principle, we further expect that the interaction between both types of resources (i.e., social support and job search self-efficacy, networking behaviors and job search self-efficacy) will be such that the compensatory effect of the two types of resources (i.e., high in one and low in the other) on the number of interviews is indirect and operates via job search intensity:

**Hypothesis 6.** Higher levels of (a) social support and (b) networking behaviors and job search self-efficacy, respectively, will interact in such a way that the relationships between either type of resource and a higher number of job interviews, via job search intensity, are stronger when the level of the resource is low, compared with high.

#### **METHOD**

# Sample and procedure

To collect our data, we partnered with an organization in Switzerland that conducts workshops for unemployed job seekers designed to help them conduct a successful job search and find a job. This organization conducted three content-wise identical programs, with different participants in each program, in 2018 (start dates in January, April, and August). Each program lasted about 3 months. We collected data from participants (i.e., unemployed job seekers) over 8 months and at four distinct moments. We focused on unemployed job seekers, who tend to have limited resources (e.g., Lim et al., 2016), as we felt that such a population would be appropriate for studying the effects of multiple resources on job seeking. The first survey (T1) was sent 2 weeks before the beginning of the program, the second (T2) halfway through the program (i.e., about 2 months after T1), the third (T3) at the end of the program (i.e., about 4 months after T1), and the fourth (T4) 2 months after the program end. We aligned our surveys with the program's timing while respecting the same interval between the surveys (i.e., 2 months). The surveys were completed in either English or German. The original surveys in English were translated to German by a research assistant who is native in both languages. Two of the authors fluent in both languages then verified the translations (see Brislin, 1970).

In T1, we assessed demographic and contextual variables, which served primarily as control variables (i.e., age, gender, highest level of education, duration of unemployment, duration of job search, and financial need). We assessed the unemployed job seekers' level of social support, networking behaviors, and job search self-efficacy in T1–T4, and we assessed repeated measures of job search intensity and the number of interviews in T2–T4. Our data collection strategy provided a natural lag in our independent variables (i.e., contextual and personal resources) predicting later job search process (i.e., job search intensity) and outcome (i.e., number of job interviews) variables. That is, variables collected at T1 would predict the variables in T2, those collected in T2 would predict those in T3, and so on.

Of the 225 participants who registered for the workshops organized by the agency and consented to participate in the study, 134 completed the initial survey. Consistent with multilevel recommendations (e.g., da Motta Veiga & Gabriel, 2016; Singer & Willett, 2003), we retained the participants who had responded to at least three out of the four surveys, resulting in a final sample of 89 participants, for a response rate of about 40%. Furthermore, 44 participants responded to all four surveys, and an additional 45 responded to three surveys. The total number of responses (i.e., observations) was 311. Our analyses are thus based on 311 observations (i.e., intra-person level) nested within 89 participants (i.e., inter-person level), of whom 56% were male, had an average age of 46.1 (SD = 10.07), had been unemployed on average for 21.9 weeks (SD = 23.02), and had been searching for a job for 26.8 weeks (SD = 20.24). About 56% of the participants had a higher education degree (e.g., bachelor, master's, or professional degree), and 29% had an apprenticeship diploma. We compared the respondents who only

searching for a job, highest education level, gender, or age.<sup>2</sup>

DA MOTTA VEIGA ET AL. completed the initial survey (45) with those from the final sample (89) on the variables measured in the first survey. There were no differences in financial need, weeks unemployed, weeks

#### Measures

## Social support (T1–T4)

We measured social support using three items adapted from Zimet et al. (1988). Participants reported "the extent to which you agreed with the following statements about your job search in the last two months" using a scale ranging from 1 = strongly disagree to 5 = strongly agree. The items were "I have been supported by my family and friends," "My friends and family have really tried to help me," and "I have been able to talk about my problems with my friends and family." The average reliability (Cronbach's alpha) across the surveys was .92.

# Networking behaviors (T1–T4)

We assessed networking behaviors using two items adapted from McArdle et al. (2007). We instructed the participants to "indicate the extent to which you agree with the following statements about your job search in the last two months" using a scale ranging from 1 = strongly disagree to 5 = strongly agree. The items were "I have attended various networking meetings and workshops to learn about new career options" and "I have initiated conversations with knowledgeable individuals in new career areas of interest to me." The average reliability (Cronbach's alpha) across surveys was .71.

# Job search self-efficacy (T1–T4)

We measured job search self-efficacy using a 20-item scale from Saks et al. (2015).<sup>3</sup> Although the original scale is two-dimensional (i.e., measuring job search self-efficacy as it is related to behaviors and outcomes), in our study, we found that the items loaded onto one overarching job search self-efficacy dimension, with an average reliability across the surveys of .92. We thus combined all the items into one job search self-efficacy score. We asked participants to "please rate your *current* level of confidence in your abilities" using a scale ranging from 1 = not at all confident to 5 = extremely confident. Sample items included "Prepare resumes that will get you job interviews," "Impress interviewers during employment interviews," and "Be successful in your job search."

# Job search intensity (T2–T4)

We measured job search intensity using eight items adapted from van Hooft et al. (2004). For each item, we instructed the participants to "indicate the extent to which you have engaged in the following activities in the last two months" using a scale ranging from 1 = never to 5 = always. Sample items included "I have used the internet to locate job openings" and "I have sent out my resume to potential employers." The average reliability (Cronbach's alpha) across surveys was .77.

# Number of job interviews (T2–T4)

We measured the number of job interviews by asking participants to report how many job interviews they had obtained *in the last 2 months*.

#### Control variables

Based on prior research on unemployed job seekers (e.g., Kanfer et al., 2001; Kreemers et al., 2018; Wanberg et al., 2010), we controlled for age, gender, education level, length of unemployment (in weeks), and job search duration (in weeks), assessed in T1. We also controlled for financial hardship, using items from Wanberg et al. (2010), assessed in T1. For each item, we instructed participants to "indicate the extent to which you agree with the following statements" using a scale ranging from  $1 = strongly \ disagree$  to  $5 = strongly \ agree$ . A sample item was "not having another job in the next few months would reduce my standard of living to the bare necessities of life." The reliability for this scale was .85.

# **Analytical strategy**

Before running our analyses, we examined the amount of inter-versus intra-individual variance in the repeated measures by running intercept-only models. Results indicated sufficient intra-individual variance to support multilevel modeling (Singer & Willett, 2003): 46% for job search intensity, 37% for job interviews, 78% for social support, 85% for networking behaviors, and 41% for job search self-efficacy.

We used multilevel modeling (STATA 18.0; StataCorp, 2023) to test the hypotheses in a path-analytic framework. Level-1 variables (independent, moderator, and dependent) were intra-individual, and Level-2 control variables were inter-individual. We centered the Level-1 predictor variables around the individual means (i.e., person-mean centering; Enders & Tofighi, 2007; Singer & Willett, 2003). By centering the predictors, we controlled for interindividual variance in the scores. We centered the Level-2 variables (i.e., control variables) around the sample mean of the respective variable (grand-mean centering). Grand-mean centering improves the interpretation of the intercept values and reduces multi-collinearity (Enders & Tofighi, 2007; Singer & Willett, 2003).

To test Hypotheses 1–3, we examined the main effects of contextual resources (i.e., social support and networking behaviors) and personal resources (i.e., job search self-efficacy) on job search intensity and the number of job interviews (Hypotheses 1 through 3). To test the interactions, we included the interaction term of each contextual resource (i.e., social support and networking behaviors) with job search self-efficacy as a personal resource predicting job search intensity (Hypotheses 4 and 5).

Finally, to test moderated mediation (Hypothesis 6), we combined multilevel mediation procedures outlined by Krull and MacKinnon (2001) and Bauer et al. (2006) to test conditional indirect effects of either type of resource on the number of job interviews via job search

intensity, depending on the level of the other type of resource. We first tested a 1-1-1 multilevel model to establish the indirect effects of either type of resource on the number of job interviews via job search intensity. Then, we included the interaction term to test the moderated mediation. We used parameter bootstrapping (MacKinnon et al., 2004) with a Monte Carlo simulation with 1000 replications to create our 95% confidence intervals (CIs).

#### RESULTS

Table 1 presents the means, standard deviations, and correlations.

# Contextual and personal resources in job search

Hypothesis 1, which proposed that higher levels of social support would relate (a) to higher job search intensity and (b) indirectly to a higher number of job interviews, was not supported. Indeed, as shown in Table 2, social support was not related to job search intensity ( $\beta = .04$ , ns), failing to support Hypothesis 1a. However, as shown in Table 3, social support was not directly related to the number of job interviews ( $\beta = -.16$ , ns), nor indirectly ( $\beta = .12$ , ns). As such, Hypothesis 1b was also not supported. Overall, when unemployed job seekers experienced higher levels of social support during their job search, they did not exert greater intensity. Nor did they receive more job interviews.

Hypothesis 2, which proposed that higher levels of networking behaviors would relate (a) to higher levels of job search intensity and (b) indirectly to a higher number of job interviews, was supported. As shown in Table 2, networking behaviors were positively related to job search intensity ( $\beta = .17$ , p < .001), supporting Hypothesis 2a. Furthermore, as shown in Table 3, networking behaviors were not directly related to the number of job interviews ( $\beta = .02$ , ns). However, we found that the indirect path between networking behaviors and the number of job interviews via job search intensity was significant ( $\beta = .16$ , p < .001), with a Monte Carlo parametric bootstrap 95% CI of 0.05–0.26. Hypothesis 2b was thus supported. Overall, when unemployed job seekers had higher levels of networking behaviors during their job search, they exerted greater intensity, leading them to obtain more job interviews.

# Job search self-efficacy as personal resource

Hypothesis 3, which proposed that higher levels of job search self-efficacy would relate (a) to higher levels of job search intensity and (b) indirectly to a higher number of job interviews, was largely supported. As shown in Table 2, job search self-efficacy was positively related to job search intensity ( $\beta = .35$ , p < .001), supporting Hypothesis 3a. Furthermore, as shown in Table 3, job search self-efficacy was directly and indirectly related to the number of job interviews (respectively,  $\beta = .92$ , p < .01;  $\beta = .33$ , p < .001). Because we had predicted an indirect relationship, while the effect was direct, Hypothesis 3b was partially supported. Overall, when unemployed job seekers had higher levels of job search self-efficacy, they exerted greater intensity and obtained more job interviews.

TABLE 1 Means, standard deviations, and zero-order correlations.

	Mean	as	1	2	3	4	S.	9	7	∞	6	10
Level-1 variables (intra-individual)												
1. Number of job interviews	2.15	2.35										
2. Job search intensity	3.78	0.61	.24*									
3. Social support	3.68	0.99	.11	.27*								
4. Networking behaviors	3.97	0.83	80.	*47*	.18*							
5. Job search self-efficacy	3.55	0.61	.30*	*04.	.25*	.31*						
Level-2 variables (inter-individual)												
6. Financial hardship	2.83	1.01	.01	.05	.05	04	00.					
7. Weeks unemployed	21.89	23.02	02	.00	9.	.03	9.	80.				
8. Weeks searching for job	26.81	20.24	01	.03	.03	00.	.05	.12*	*14*			
9. Highest degree obtained	4.48	2.08	01	90	90	.00	90.	05	13*	02		
10. Age	46.06	10.07	01	07	07	03	07	.12*	.15*	.21*	18*	
11. Gender	0.56	0.50	.01	90	90-	.07	04	90:	09	01	90:	.16*

and correlations for level-2 variables (below the diagonal from rows 6 through 11) are inter-individual correlations. Number of job interviews and job search intensity were measured in Time 2 Note: Level-1 n = 311, Level-2 n = 89. The correlations for level-1 variables (below the diagonal from rows 1 through 5) are intra-individual correlations, whereas the cross-level correlations through Time 4, and social support, networking behaviors, and job search self-efficacy were measured in Time 1 through Time 4. p < .05.

Results of multilevel analyses for job search contextual resources, self-efficacy, and intensity.

Outcome variable—job search intensity								
	Model 1	Model 1						
	β	SE	p value					
Inter-individual control variables								
Financial hardship	.00	.04	.93					
Weeks unemployed (log)	.05	.05	.34					
Weeks searching for job (log)	10	.07	.16					
Highest degree obtained	02	.02	.33					
Age (log)	.10	.15	.51					
Gender	.03	.07	.71					
Intra-individual predictors								
Social support	.04	.07	.62					
Networking behaviors	.17*	.06	.00					
Job search self-efficacy (JSSE)	.35*	.07	.00					
Intra-individual interactions								
Social support $\times$ JSSE	.12	.10	.23					
Networking behaviors $\times$ JSSE	29*	.11	.01					
Constant	3.74*	.58	.00					

Note: Level-1 n = 311, Level-2 n = 89. Gender was coded 0 for female and 1 for male.

# Interaction of contextual and personal resources in job search

Hypothesis 4 proposed that higher levels of social support and job search self-efficacy would interact in such a way that the relationships between either resource and higher levels of job search intensity would be stronger when the level of the other resource was low, compared with high. As shown in Table 2, the interaction term was not significant ( $\beta = .12$ , ns). Hypothesis 4 was not supported.

Hypothesis 5 proposed that higher levels of networking behaviors and job search selfefficacy would interact in such a way that the relationships between either resource and higher levels of job search intensity would be stronger when the level of the other resource was low, compared with high. As shown in Table 2, the interaction term was significant ( $\beta = -.29$ , p < .01). When plotting these results (see Figure 2a,b), the relationship between networking behaviors and job search intensity was positive and stronger for job seekers with low job search self-efficacy than for those with high job search self-efficacy. Similarly, the relationship between job search self-efficacy and job search intensity was positive and stronger for job seekers with low networking behaviors than for those with high networking behaviors. Simple slope analyses (Bauer et al., 2006) indicated that the relationship between networking behaviors and job search intensity was -.02 (ns) for individuals with high job search self-efficacy but .19 (significant at p < .05) for those with low job search self-efficacy. Similarly, the relationship between

<sup>\*</sup>p < .05.

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**TABLE 3** Results of multilevel analyses for contextual resources, self-efficacy, and number of job interviews.

Outcome variable—number of	job in	tervie	ws						
	Mod	del 2		Indire	Indirect effects via job search intensity				
	β	SE	p value	β	SE	p value	Lower bound 95% CI	Upper bound 95% CI	
Inter-individual controls									
Financial hardship	.12	2 .16	.45						
Weeks unemployed (log)	.03	3 .21	.89						
Weeks searching for job (log)	27	7 .31	.38						
Highest degree obtained	.01	.07	.87						
Age (log)	74	1.70	.30						
Gender	.03	3 .32	.92						
Intra-individual predictors									
Job search intensity	.92	2* .34	.01						
Social support	16	5 .30	.59	.12	.08	.14	04	.29	
Networking behaviors	.02	2 .27	.93	.16*	.05	.00	.05	.26	
Job search self-efficacy (JSSE)	.92	2* .33	.01	.33*	.05	.00	.23	.43	
Intra-individual interactions									
Social support $\times$ JSSE	41	.46	.37						
Networking behaviors $\times$ JSSE	42	2 .48	.38	27 <b>*</b>	.10	.01	46	08	
Constant	5.24	<b>1*</b> 2.53	.04						

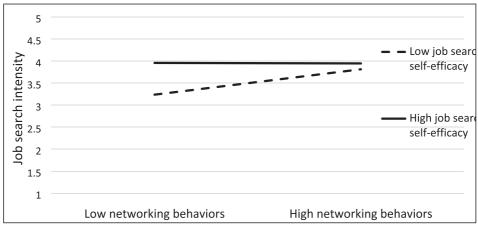
job search self-efficacy and job search intensity was .01 (ns) for individuals with high networking behaviors but .20 (significant at p < .05) for those with low networking behaviors. Thus, Hypothesis 5 was supported.

Finally, Hypothesis 6 proposed moderated mediation, wherein the interaction between higher levels of job search self-efficacy and (a) social support and (b) networking behaviors would show that the relationships between either resource and a higher number of job interviews, via increased job search intensity, would be stronger when the level of the other resource was low, compared with high. In testing Hypothesis 6, we considered whether job search self-efficacy, social support, and networking behaviors exhibited an indirect positive effect on the number of job interviews via job search intensity. As shown in Table 3, we found that job search self-efficacy and networking behaviors, but not social support, exhibited an indirect positive effect via job search intensity on the number of job interviews (respectively,  $\beta = .33$  and  $\beta = .16$ , both p < .001), with a Monte Carlo parametric bootstrap 95% CI respectively of 0.23., 0.43 and 0.05, 0.26. When including the interaction term to test the conditional indirect effects, we found a significant indirect effect for the interaction term ( $\beta = -.27$ , p < .01), with a Monte Carlo parametric bootstrap 95% CI of -0.46, -0.08. The patterns of this

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interaction for the number of job interviews were identical to the ones found in Figure 2a,b for job search intensity, suggesting that when job seekers had both higher levels of job search self-efficacy and networking behaviors, they did not have a higher number of job interviews than when they were low in the level of the other resource. Hypothesis 6b was thus also supported.

(a) Interactive Effects of Networking Behaviors and Job Search Self-Efficacy (JSSE) on Job Search Intensity (JSSE as the Moderator)



(b) Interactive Effects of Networking Behaviors and Job Search Self-Efficacy (JSSE) on Job Search Intensity (Networking Behaviors as the Moderator)

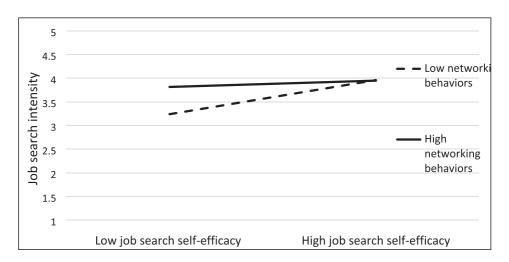


FIGURE 2 (a) Interactive effects of networking behaviors and Job Search Self-Efficacy (JSSE) on Job Search Intensity (JSSE as the moderator). (b) Interactive effects of networking behaviors and JSSE on Job Search Intensity (networking behaviors as the moderator).

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# Supplementary analyses

We also addressed potential alternative theoretical models. Specifically, COR theory may be used to argue that contextual and personal resources may be linked in a sequential manner, thus culminating in a resource spiral (Hobfoll et al., 2018). In line with this, one may assume that higher levels of either contextual resource can boost self-efficacy in finding a job and thus be related to higher levels of job search intensity. We conducted additional analyses to examine these alternative models. We found that networking behaviors were not related to job search self-efficacy ( $\beta = .08$ , p = .25) and that the indirect effect of networking behaviors on job search intensity through job search self-efficacy is not significant ( $\beta = .03$ , p = .13). We also found that social support was not related to job search self-efficacy ( $\beta = .08$ , p = .08). Neither was the indirect effect of social support on job search intensity through job search self-efficacy significant ( $\beta = .05$ , p = .09). Overall, these alternative models provide further support for our conceptual model, as well as for our findings.

#### DISCUSSION

Unemployed job seekers need to cope with the challenges of finding employment, while having to face low levels of resources that could help them in this process (Lim et al., 2016; Wanberg, 1997, 2012). Drawing on COR theory (Hobfoll, 1989, 2002, 2011) and the equifinality principle (Halbesleben et al., 2014; Kruglanski et al., 2011), we found that fluctuations in networking behavior—as a contextual resource—and job search self-efficacy—as a personal resource—are positively related (i.e., having an additive effect) to fluctuations in job search intensity and indirectly related to fluctuations in the number of job interviews obtained. Our results support the hypothesis of compensatory effects in line with the equifinality principle and further reveal an interactive effect between networking behaviors and job search selfefficacy. Specifically, fluctuations in networking behaviors and job search self-efficacy compensated each other, such that job search intensity and, indirectly, the number of job interviews were highest when one resource was high and the other low or when either resource was high.

# Theoretical implications

Our study has several implications for theory building about the role of resources in the job search process. First, we contribute to the job search literature by theorizing and examining the additive effects of contextual and personal resources as the job search process unfolds. We apply COR theory's resource gain corollary (Hobfoll, 1989) to the job search context, suggesting that individuals who have more resources are more likely to obtain new resources. In line with this corollary, we find that, intra-individually, higher levels of contextual (i.e., networking) and personal (i.e., job search self-efficacy) resources lead to greater intensity in one's job search. Furthermore, higher levels of networking behaviors and job search self-efficacy lead to a greater number of interviews. Higher levels of social support were not related to either higher job search intensity or a greater number of job interviews. One possible explanation for this finding is that networking behaviors, because they are self-started, are more active and informational than social support (Van Hoye et al., 2009). Indeed, this reasoning is consistent with findings that proactive job seekers are more likely to make more of an effort (exert intensity) and be more successful in their search for employment (Brown et al., 2006).

Second, we aligned COR theory (Hobfoll, 1989) with the equifinality principle (Huang & Zhang, 2013; Kruglanski et al., 2011) to challenge the prominent "the-more-resources-the-better" understanding and provide a more nuanced understanding of the role of resources in unemployed job search. More specifically, we found that intra-individual fluctuations in networking behaviors and job search self-efficacy interacted with each other such that high levels of one resource compensated for low levels of the other. Although the COR literature has long evoked the principle of the equifinality of resources and its associated compensatory effects (Hobfoll, 2011), this effect has not received a lot of attention. As explicitly considering the compensatory effects between resources contributes to a more holistic understanding of the complex interplay between different types of resources, we strongly encourage future research in this direction. Indeed, our findings are consistent with recent research on multiple team contextual resources (i.e., team social support and team psychological safety; Stoverink et al., 2018) that both contribute to achieving team citizenship. The authors found that the aforementioned team resources can compensate for each other when influencing team citizenship. Whereas Stoverink et al. (2018) investigated whether and how resources can compensate for one another at the team-level, our study's findings are consistent with their compensatory mechanism at the intraindividual level.

Third, and on a more general level, intra-individually, we provide a possible answer to two questions raised in recent job search reviews: how to sustain one's intensity and how to be successful in one's job search (da Motta Veiga et al., 2018; van Hooft et al., 2021). More specifically, the latter reviews called for more intra-individual research looking intro predictors of greater job search intensity throughout the job search as a whole, rather than at one specific moment (i.e. inter-individual differences), as well as predictors of great job search success, such as a greater number of job interviews. While more research is needed, our findings suggest that higher levels of either contextual or personal resources may provide a solution regarding intraindividual persistence in job search intensity and greater success as the process unfolds. The findings of our study thus reinforce the idea that, because job seeking is a self-regulated process (e.g., da Motta Veiga et al., 2018; van Hooft et al., 2021), an intra-individual lens is most appropriate for studying this process and that resources can be critical predictors of job search selfregulation. Taken together, our study thus combines a COR theory perspective on resources with theoretical models of self-regulated job search processes to arrive at a more nuanced understanding of the job search process.

# **Practical implications**

This study also has implications for unemployment agencies and job seekers. Our finding of the additive effects of contextual and personal resources highlights that both types of resources are important in a job search. Thus, unemployment agencies should design appropriate interventions to help job seekers understand the importance of their resources. Certainly, designing interventions for job search self-efficacy is more straightforward (e.g., through boosting selfefficacy by converting negative self-statements into positive ones; Liu, Huang, & Wang, 2014); however, to train job seekers to increase their contextual resources, job search coaches could design a program to help job seekers understand and use their own personal network

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(i.e., instrumental support), consistent with recent evidence that networking interventions increase networking intensity (Wanberg et al., 2020).

Second, for unemployed job seekers, our findings emphasize the importance of intraindividual fluctuations in their contextual and personal resources in the job search process. Job seekers need to recognize that job search self-efficacy and networking behaviors are not stable but rather fluctuate throughout their job search and that they must understand that higher levels in these resources have the potential to drive their intensity, while helping them obtain more job interviews. However, our findings suggest that it is also important for unemployed job seekers to understand the benefits associated with having higher levels of either resource. For example, consistent with our findings and with the equifinality principle, if job seekers have higher self-efficacy at any given moment, they might better focus on that resource. In contrast, if job seekers have low self-efficacy, they could re-allocate their resources, such that they invest more time in networking. Overall, we argue that unemployed job seekers need to understand how and when to use contextual and personal resources.

#### Limitations and directions for future research

The current study is not without limitations. First, while it is clearly important to understand the benefits accruing from having social support, engaging in networking behavior, and having high job search self-efficacy to boost job search intensity and the number of job interviews, these are not the only keys to finding employment. Indeed, other personal and contextual resources most likely play a role as well. Resilience, for example, or a person's ability to withstand adverse life events and bounce back from them (Rutter, 2012; Smith et al., 2010), could be another dynamic personal resource that could prove highly beneficial in the job search, perhaps even in combination with contextual resources (in contrast to our findings). Relatedly, we also encourage future research to identify whether there are specific job search stages (Barbulescu, 2015) during which high levels of each resource may end up being beneficial (i.e., a multiplying rather than compensating mechanism). For example, when negotiating a job offer, job seekers should ideally have high contextual (e.g., advice on how to negotiate) and personal resources (e.g., negotiation self-efficacy), which may have a more beneficial influence on job search outcomes (e.g., salary).

Second, we examined job search intensity and the number of job interviews, which are important predictors of job search success (van Hooft et al., 2021). However, it would be important for future research to go a step further in the process and examine other job search outcomes, such as job attainment and employment outcomes (e.g., perceived fit, job satisfaction, salary), along with well-being outcomes associated with long-term unemployment (e.g., mental health and life satisfaction). Further, these outcomes could even be collected from objective, third-party sources (e.g., a hiring company or an unemployment agency). Doing so would enable investigating the long-term predictive effects of the examined resources. Relatedly, future research could examine the underlying mechanism(s) driving the equifinality effect in a job search. For example, did unemployed job seekers make a conscious decision to focus on a specific resource or was it an unconscious effect (e.g., a resource that was more readily available at the time), influencing their resource allocation?

Third, this study did not capture the unemployed individuals' entire job search process; that is, we did not monitor participants from the first day of unemployment until they found a new job. As such, not all participants had been unemployed for the same amount of time, nor had

they been seeking work for the same amount of time. To mitigate these concerns, we controlled for the number of weeks they had been unemployed, as well as the number of weeks they had been seeking work. Furthermore, although we believe that the repeated measures design allowed enough time (i.e., 2 months between measures) for job seekers' resources, intensity, and number of job interviews to evolve, we also believe that future research could follow unemployed job seekers from the moment of job loss until their re-employment. However, taking an extended time period approach adds other limitations such as unemployed individuals finding jobs at very different times throughout the study period.

Finally, our study focused on unemployed job seekers and their limited resources (Lim et al., 2016; Wanberg, 1997, 2012) because we assumed that this population would be highly sensitive to the proposed effects. We would expect to find similar results among other types of job seekers (e.g., new labor market entrants as first-time job seekers and employed job seekers). This is because these individuals conduct their job search while studying and/or in full-time employment, which thus also limits their amount of resources available for job seeking. Therefore, we encourage future research to investigate the additive and interactive effects of resources for other types of job seekers (Boswell et al., 2012).

#### CONCLUSION

This study contributes to job search and unemployment research by providing a more nuanced understanding of the joint role of contextual and personal resources in unemployed job search. While much prior research has examined one type of resource separately, our findings highlight the importance of considering both contextual and personal resources together. More specifically, we theorized and found that while intra-individual fluctuations in both contextual and personal resources had a positive and additive influence on job seeking, when the resources were considered separately. In contrast, when the resources were considered together, our study showed that one type of resource compensated for the other. More broadly, this study furthers our understanding of resource conservation and equifinality towards one and the same goal by showing how resources can compensate for each other, especially for unemployed individuals with fewer resources.

#### **ACKNOWLEDGMENTS**

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#### CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflicts of interest.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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#### ETHICS STATEMENT

All subjects gave their informed consent before they participated in the study. The study was conducted in accordance with the principles from the Declaration of Helsinki and in accordance with local statutory regulations.

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#### **ENDNOTES**

- <sup>1</sup> For transparency purposes, we also collected job offer acceptance data. However, only 27 of the 89 participants (who responded to three or more surveys) reported accepting a job offer during our data collection period. We still ran additional analyses (using logit regression and averaging job search self-efficacy, social support, networking behaviors, and job searching intensity across the surveys) and found that only social support was positively related to the likelihood of accepting a job offer sometime between surveys 2 and 4 (B = .71, p = .09). The mostly non-significant (or marginally significant) results may be due to the small sample size.
- <sup>2</sup> More detailed results can be obtained from the corresponding author.
- <sup>3</sup> We collected both dimensions of job search self-efficacy (JSSE). However, when running our analyses in terms of multilevel model fit (i.e., nested models using Likelihood-ratio test), we found no difference between the model including the two JSSE dimensions and the model including an overall JSSE measure (LR chi2[3] = 3.94, Prob > chi2 = .2675). Following a recommendation to keep the simpler model (e.g., Hox et al., 2017), we kept the model with the overall JSSE measure.

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