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van den Hee, S.M.; van Hooft, E.A.J.; van Vianen, A.E.M.

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A temporal perspective of job search: The relation between personality attributes, motivation, job search behavior, and outcomes☆,☆☆

Sarah M. van den Hee*, Edwin A.J. van Hooft, Annelies E.M. van Vianen

Department of Psychology, University of Amsterdam, the Netherlands

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ABSTRACT

Job search is a lengthy process in which self-regulation is needed to obtain reemployment. Time and motivation play an important role in how job seekers regulate their search behavior. Building on temporal motivation theory and self-determination theory we examined the relationship of time-related personality attributes, job search motivation, and their interaction with self-regulatory job search behaviors and subsequent outcomes of the job search process. In a three-wave field study among 397 unemployed job seekers, results showed that trait procrastination explained unique variance in job search procrastination and haphazard job search above and beyond future focus and autonomous job search motivation. Trait procrastination was also negatively related to reemployment status via increased job search procrastination and haphazard job search, and a reduced number of job interviews. Finally, the negative indirect relation between trait procrastination and reemployment status through job search procrastination, haphazard job search and job interviews, was less negative for job seekers who were more autonomously motivated to engage in job search. Our findings point to the importance of a temporal perspective of job search and suggest that the role of time-related personality attributes and motivation in the job search process should be considered in future research and practice.

1. Introduction

Job loss and unemployment can have severe consequences for individuals. Numerous studies showed that unemployment is associated with mental and psychical health problems and lower life satisfaction (Paul & Moser, 2009). Therefore, it is crucial that people get reemployed. Existing reviews on the job search process have distinguished between several personal and situational factors that are central to how and when unemployed individuals search for a job and to subsequent reemployment (Boswell et al., 2012; Saks, 2005; Wanberg et al., 2019). Job search self-efficacy, employment commitment, biographical variables (e.g., age, education), and financial need have all been associated with job search behavior and reemployment status (Kanfer et al., 2001; Van

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* Corresponding author at: Department of Psychology, Work and Organizational Psychology, University of Amsterdam, P.O. Box 15919, 1001 NK Amsterdam, the Netherlands.

E-mail address: S.M.vandenHee@uva.nl (S.M. van den Hee).

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Hooft et al., 2020). In addition, job seekers' personality is an important antecedent variable of job search behavior (Kanfer et al., 2001).

Personality is important in shaping the job search process because job search is a largely self-managed process in which job seekers need to regulate their behavior and deal with negative experiences along the way (Kanfer et al., 2001). Although most job seekers experience the job search process as stressful, it is important that they initiate and maintain job search behaviors in order to find reemployment (Van Hooft et al., 2013). Setbacks and distractions from other life domains may however undermine job seekers' motivation (Van Hooft, 2018a). Furthermore, the rather long temporal distance of the reemployment goal makes it harder to direct and persist in job search activities (Van Hooft, 2018b).

Since searching for a job is a process involving self-regulation towards a distal goal, we adopt a temporal perspective and integrate temporal motivation theory (TMT; Steel & König, 2006) and self-determination theory (SDT; Deci & Ryan, 2000) to gain more insight into individual factors that promote or hinder self-regulatory job-seeking behaviors. Applying this temporal perspective, we particularly focus on the role of time-related personality attributes such as future focus (i.e., extent to which people think about the future; Shipp et al., 2009) and trait procrastination (i.e., tendency to postpone that which is necessary to reach some goal; Lay, 1986). Both personality attributes reflect how people perceive time and the choices they make about which tasks to engage in, when to invest time and effort in those tasks, and how long to persist in those tasks (Shipp et al., 2009; Sirois, 2014; Steel, 2007). As such, future focus and trait procrastination impact cognitions, attention and behaviors, and are relevant for self-regulation and performance. In addition to time-related personality attributes, the motivation to engage in job search may affect self-regulated search behavior (Van Hooft et al., 2013). For example, when people search for a job out of personal importance or interest (i.e., autonomous motivation; Deci & Ryan, 2000) they likely use more self-regulatory activities (da Motta Veiga & Gabriel, 2016). An important remaining question is whether autonomous motivation may buffer negative effects of personality attributes that hinder self-regulatory behaviors. Accordingly, the aim of our study is to examine whether and how time-related personality attributes and job search motivation are related to self-regulatory job search behaviors and subsequent outcomes of the job search process (i.e., job interviews and reemployment status). To explore the role of personality attributes and motivation in the search process, we conducted our study in a context in which unemployed individuals search for a job in a relatively independent manner receiving minimal guidance from the reemployment agency.

This study contributes to extant knowledge in three ways. First, it extends theory and research on the role of future focus and trait procrastination for decision-making and behavior by examining these attributes in a job search context where self-regulation is crucial for attaining a desired goal. Both from a theoretical and applied view it is important to better understand how personality affects self-regulated job search (Kanfer et al., 2001). Previous research has mainly focused on the relationship between broad personality factors, such as dimensions of the five-factor model of personality, and job search behavior (Kanfer et al., 2001; Saks, 2005). However, personality facets, rather than broad personality traits, are better predictors of behavior and offer greater conceptual clarity (Dudley et al., 2006). Therefore, we focus on narrow rather than broad personality factors in predicting specific job search behaviors. Second, the current study aims to deepen our understanding of the association between motivation and job search behavior and how motivation may moderate the relationship between personality attributes and job search behavior. We pay particular attention to the degree of autonomous motivation, as research has shown that the reason why job seekers engage in job search is important for self-regulatory behavior (Vansteenkiste & Van den Broeck, 2018). Third, this study examines different dimensions of job search behavior (i.e., intensity, procrastination, haphazardness) and outcomes of the job search process (i.e., job interviews and reemployment status). In this way, we address calls to look at a broader array of behavioral dimensions related to job search effectiveness (Kanfer et al., 2001; Van Hooft et al., 2013). In addition to its theoretical implications, the results of this study may have important practical implications. A better understanding of the factors that benefit or hinder job seekers during their search can help them to identity their potential strengths and pitfalls and to take these into account when regulating their behavior. Also, insight into the role of individual factors such as personality attributes and motivation in the search process can facilitate reemployment counselors to profile individual job seekers and tailor interventions to their specific needs.

1.1. Job search behavior

Job search behavior is most often operationalized and studied as the intensity with which people engage in job search and the sources they use to acquire information about job openings (Saks, 2005). However, job search behavior entails not only the intensity of job search but also the content of activities job seekers engage in and the persistence of the search (Kanfer et al., 2001). These different types of job search behavior can foster or hinder attaining positive search outcomes, such as finding reemployment. In this study we examine job search behavior along three different behavioral dimensions to obtain a better understanding of the search process.

A job search dimension that fosters search outcomes is *job search intensity* (Kanfer et al., 2001; Van Hooft et al., 2020), which refers to the amount of time job seekers devote to specific job search activities (Blau, 1994). Importantly, job seekers need to optimize and sustain their effort during the search, despite rejections and other difficulties. A job search dimension that may hinder job search success is *haphazard job search* (Crossley & Highhouse, 2005). Haphazard job search involves the content of job search activities, referring to a trial and error approach and passively gathering information both inside and outside of one's area of expertise (Crossley & Highhouse, 2005). This haphazard search, for example, involves searching randomly for job information, using a “hit or miss” rather than a systematic approach. Moreover, haphazard job searchers have low or unclear employment goals and plans which makes it more difficult to regulate goal-directed behaviors such as applying to a specified set of organizations that match their interests and experience (Koen et al., 2010). Another dimension of job search that may hinder attaining positive outcomes is *job search*

procrastination (Turban et al., 2013), which refers to the voluntary delay of intended job search activities and is an indicator of search persistence (Van Hooft, 2014). For attaining reemployment, is it essential that job seekers stay focused on their search activities and do not delay these activities (Van Hooft et al., 2013).

1.2. Antecedents of job search behavior: personality attributes and motivation

Personality and motivation have been conceived important factors influencing people's behavior and performance (e.g., Barrick et al., 2013). Two theories that represent a framework for studying personality and motivation in relation to self-regulated behavior are TMT (Steel & König, 2006) and SDT (Deci & Ryan, 2000). According to TMT, people pursue and persist in courses of action that are desirable to them (i.e., have high utility; Steel & König, 2006). Desirable activities are those that are strongly valued, have a high chance of success, and offer immediate rewards. How strongly an activity is valued is expected to vary across individuals based on the needs that people have. TMT further poses that someone's sensitivity to delay or impulsiveness affects if certain actions are pursued (Steel & König, 2006). Extending TMT (Steel & König, 2006), SDT (Deci & Ryan, 2000) suggests that not only the motivational value is important to self-regulatory behaviors such as persistence and effort, but also the quality of the motivation. The reasons to engage in certain activities may vary across individuals and these different reasons are expected to lead to different behavioral outcomes. Central to SDT is the assumption that the more people act for autonomous reasons, the more effective they will be in regulating their behavior (Deci & Ryan, 2000). Together, TMT (Steel & König, 2006) and SDT (Deci & Ryan, 2000) imply that a combination of the value and quality of motivation and time-related personality attributes influence the utility of executing behavior.

Both theories seem relevant for explaining behavior in a job search context, since job seekers need to persist in their search over a substantive amount of time despite rejections, distractions, and disliking the search process (e.g., Wanberg et al., 2012). In examining job search as a self-regulated process, we focus on two time-related personality attributes (i.e., future focus and trait procrastination) that are connected to TMT (Steel & König, 2006) and on the degree of autonomous motivation (SDT; Deci & Ryan, 2000).

1.2.1. Future focus

Future focus is a relatively stable cognitive personality characteristic through which personal and social experiences are assigned to a future time frame (Zimbardo & Boyd, 1999). Future focus specifically refers to the extent to which individuals cognitively devote their attention to the future (Shipp et al., 2009). In the context of TMT (Steel & König, 2006), a focus on the future is connected to the concept of temporal discounting. Temporal discounting entails the tendency to prefer immediate rewards over delayed rewards and to be less concerned with future consequences (Steel & König, 2006). Individuals who are future-focused do however weigh the future in their decisions and acknowledge long-term benefits and outcomes.

Devoting one's attention to the future has been associated with adaptive behaviors and high performance in various domains, such as health, work, and education (Andre et al., 2018). Future-focused individuals show high levels of conscientiousness and are sensitive to rewarding cues, variables that are associated with planning and organizing activities (Zimbardo & Boyd, 1999). Furthermore, a future focus negatively relates to impulsivity and sensation seeking, factors that may jeopardize the achievement of future goals (Zimbardo & Boyd, 1999). Finally, future-focused individuals tend to show less delay of decision-making in the workplace (Gupta et al., 2012). Thus, a future focus facilitates people to shift their behavior towards the attainment of long-term goals (Nurmi, 1991).

Although the importance of a future focus to adaptive behavior and performance has been well established, there is still little known about its implications for job search behavior. Obtaining reemployment is a distal goal involving lengthy processes full of unpleasant aspects (Van Hooft et al., 2013; Wanberg et al., 2012) and self-regulation is thus needed to initiate and maintain the search behavior. Based on TMT (Steel & König, 2006) and prior research in other contexts (e.g., Andre et al., 2018), we expect that future-focused job seekers will be better able to engage in self-regulatory job search behavior than job seekers who are less future-focused. A focus on the future will help job seekers to align their present behavior with future goals and to avoid distracting activities in other life domains. Consequently, future-focused individuals will invest more time and effort in their search and prioritize job search activities above other activities. Moreover, they are more likely to carefully consider job opportunities rather than engaging in a haphazard information search. In sum, we propose that:

Hypothesis 1. Future focus relates positively to (a) job search intensity, and negatively to (b) job search procrastination and (c) haphazard job search.

1.2.2. Trait procrastination

Trait procrastination refers to a cross-temporal and stable tendency to postpone an intended course of action, irrespective of the task at hand (Lay, 1986). As such, trait procrastination is conceptually different from job search procrastination, which entails the actual behavioral delay of job search activities. From a TMT perspective, trait procrastination indicates people's sensitivity to delay (Steel, 2007; Steel & König, 2006).

The negative effects of trait procrastination for behavior and performance have been demonstrated in various domains. For instance, meta-analytic evidence shows that among academic students trait procrastination is positively related to task delay and negatively related to task preparation time and overall academic performance (Van Eerde, 2003). Also, the tendency to delay is negatively associated with career and financial success (Mehrabian, 2000). Overall, trait procrastination has important implications for behavior and performance in contexts where self-regulation is needed for goal attainment, which is the case during job search.

Indeed, unemployed job seekers with a high tendency to delay engaged less often in various job search activities and reported higher levels of dilatory behavior (Lay & Brokenshire, 1997). Furthermore, trait procrastination negatively relates to implementation

intentions, such as organizing the job search and developing specific plans to search for reemployment (Van Hooft et al., 2005). Hence, we expect that individuals higher in trait procrastination will experience more difficulties with organizing their job search and gathering information about job options:

Hypothesis 2. Trait procrastination relates negatively to (a) job search intensity, and positively to (b) job search procrastination and (c) haphazard job search.

1.2.3. Autonomous job search motivation

Autonomous motivation can be defined as motivation stemming from a sense of volition and personal endorsement (Deci & Ryan, 2000). When people are autonomously motivated, they engage in behavior because it is perceived to be consistent with their personal goals and/or values. Highly as compared to less autonomously motivated individuals are more likely to persist in their behavior as they value this behavior as satisfying their needs. Indeed, research indicates that higher levels of autonomous motivation lead to greater effort, persistence, and behavioral effectiveness (Deci & Ryan, 2008; Pelletier et al., 2001). When individuals perceive their goals as personally important and interesting, it is easier to engage in self-regulatory behavior that leads to the attainment of these goals (Deci & Ryan, 2008). Also, autonomous forms of motivation can help people to deal with stressful experiences and to consider demands as opportunities to learn (Trépanier et al., 2013). As a result, they will use adaptive coping strategies and invest time and effort in dealing with these demands.

Building on TMT (Steel & König, 2006) and SDT (Deci & Ryan, 2000), we expect that holding an autonomous motivation can help job seekers to deal with their difficulties and to regulate their behavior during their search. Although many unemployed job seekers experience the search process in itself as demanding and unpleasant, their motivation to search for a job can still be autonomous as they may integrate the value or reason for engaging in job search behavior into their own values (Vansteenkiste & Van den Broeck, 2018). As such, job seekers can vary in the extent to which they experience their search behavior as self-directed. Several studies show that an autonomous job search motivation is related to higher job search intensity and persistence, and the use of more self-regulatory activities (da Motta Veiga & Gabriel, 2016; Koen et al., 2016; Vansteenkiste et al., 2004). Thus, the more autonomously motivated job seekers are to engage in job search, the more time and effort they will invest in their search. Also, when the goal of finding reemployment is important to job seekers, it is likely that they intensively involve in their search, prioritize their job search activities above other activities, and direct their search to clear employment goals and standards (Van Hooft, 2018b). We propose:

Hypothesis 3. Autonomous job search motivation relates positively to (a) job search intensity, and negatively to (b) job search procrastination and (c) haphazard job search.

1.2.4. Moderating effects of autonomous job search motivation

Besides the direct relationship of autonomous motivation with job search behavior, we propose that autonomous motivation moderates the relation between personality and behavior. TMT posits that the value of an activity and people's sensitivity to delay *jointly* influence how desirable a choice or action is for them (Steel & König, 2006). When an activity is more strongly valued, the desirability to perform that activity will increase. To maintain high desirability, it is also important that an individual has a low sensitivity to delay. For instance, individuals with a strong disposition to delay will find it harder to carry out activities than individuals with a weak disposition to delay. However, a person who tends to delay can benefit from being more autonomously motivated to perform a task, as this will increase the value of that task, and consequently the desire to act. Thus, motivation and personality interactively affect the likelihood that individuals pursue certain behaviors (Deci & Ryan, 2000; Steel & König, 2006).

The interplay of motivation and personality may be especially relevant in a job search context in which individuals are confronted with aversive aspects and distal rewards, as these conditions will make it less desirable to engage in job search behavior. We expect that in this context autonomous motivation can serve as a personal coping resource to reduce the negative effects of personality attributes on self-regulatory behavior (Katz et al., 2006; Katz et al., 2014). As we argued previously, the less job seekers tend to think about the future and the more they tend to delay, the harder it will be for them to regulate their job search behavior. These individuals are likely to invest less effort in their search, to delay their intended job search activities, and to search in a haphazard way. However, the belief that engaging in job search is of personal importance and/or interest, should increase the value of goal-directed job search activities and make finding reemployment more desirable. Hence, especially job seekers who are less future-focused and high in trait procrastination will be better able to self-regulate their attention and behavior when they are autonomously motivated. We propose the following:

Hypothesis 4. Autonomous job search motivation moderates (a) the positive relationship between future focus and job search intensity, (b) the negative relationship between future focus and job search procrastination, and (c) the negative relationship between future focus and haphazard job search. These relationships will be weaker when job seekers are more autonomously motivated to engage in job search.

Hypothesis 5. Autonomous job search motivation moderates (a) the negative relationship between trait procrastination and job search intensity, (b) the positive relationship between trait procrastination and job search procrastination, and (c) the positive relationship between trait procrastination and haphazard job search. These relationships will be weaker when job seekers are more autonomously motivated to engage in job search.

1.3. Outcomes of job search behavior

Job search behavior is an important predictor of job search success (Kanfer et al., 2001; Saks, 2005). Several studies found a positive relationship between job search intensity and various employment outcomes (e.g., Côté et al., 2006; Saks, 2006). These findings are in line with the assumption that a higher exertion of effort towards the reemployment goal results in a greater probability of attaining that goal (Kanfer et al., 2001). Also, how individuals look for job opportunities and if they prioritize and persist in their search activities has been theorized to be important for job search success (Saks, 2005; Van Hooft et al., 2013). For example, how and when job seekers perform their search activities should affect the quality of products they deliver and the behavior they show in job interviews, affecting their reemployment success (Van Hooft, 2018a). In sum, job search intensity, job search procrastination, and haphazard job search are all expected to predict job search success.

Job search success involves an unfolding process in which proximal outcomes lead to more distal outcomes such as finding a job (Saks, 2005). In other words, success in an early job search stage is important for success in later stages. For example, when job seekers invest time and effort in their search, this should lead to more job interviews, which in turn should lead to reemployment. In this study, we therefore include both a proximal indicator (i.e., job interviews) and a distal indicator (i.e., reemployment status) of job search success.

1.3.1. Job search outcomes: job interviews

The different dimensions of job search behavior (search intensity, search procrastination, and haphazard search) will all predict the number of job interviews. Prior research on job search intensity demonstrated a positive relationship between job search intensity and the number of job interviews (e.g., Saks, 2006; Turban et al., 2013). Thus, the more time and effort job seekers invest in their search, the more likely that they will obtain job interviews. Few prior studies on the number of job interviews have examined job search procrastination and haphazard job search as predictors. However, one of these studies found that job search procrastination related negatively to the number of job interviews (Turban et al., 2013). When job seekers delay their intended job search activities, they will not prioritize tasks such as sending out application letters or resumes. Moreover, because they invest less time and effort into these tasks, their submitted materials may be of lower quality (Van Hooft et al., 2013). Hence, it is less likely that these job seekers will be invited for a job interview. In addition, searching for a job in a haphazard way should also reduce the number of job interviews. Job seekers who engage in a haphazard search gather job-related information both inside and outside their area of expertise (Crossley & Highhouse, 2005). This “hit or miss” approach probably results in more non-specific job applications, thereby diminishing the chance that a job seeker will receive an invitation for a job interview. We expect that:

Hypothesis 6. Job search intensity (a) relates positively to the number of job interviews, and job search procrastination (b) and haphazard job search (c) relate negatively to the number of job interviews.

1.3.2. Employment outcomes: reemployment status

Proximal positive outcomes in the job search process such as job interviews will increase the chance of obtaining employment (Lopez-Kidwell et al., 2013; Wanberg et al., 2012). The more job interviews people have in an early stage of the job search process, the more likely that they will obtain reemployment in a later stage. Hence, we propose the following:

Hypothesis 7. The number of job interviews relates positively to reemployment status.

Finally, in line with self-regulatory job search models (Kanfer et al., 2001; Saks, 2005), we argue that job seekers' personality attributes and motivation relate to their job search behavior, and consequently to the number of job interviews and to reemployment status. Personality is likely to exert its influence on outcomes through temporal and motivational processes and, therefore, should be more strongly related to job search behavior than to outcomes of the job search process (Kanfer et al., 2001). Indeed, meta-analytic evidence suggests that some personality variables have a direct effect on job search success (Kanfer et al., 2001), but that the relationship of these variables with job search behavior is stronger compared to their association with search outcomes. Thus, we expect that job seekers with a low tendency to delay, who are future-focused, and autonomously motivated to engage in job search, will organize, plan and execute their job search activities in time, which will increase the chance of being invited for a job interview, and in turn will increase their chance of being reemployed. Combined with the hypothesized moderating role of autonomous motivation, this implies a conditional indirect effects model of job search in which the indirect relationships of future focus and trait procrastination with reemployment status, via job search behavior and job interviews, vary at different levels of autonomous job search motivation. Therefore, we expect:

Hypothesis 8. Autonomous job search motivation moderates the positive indirect relationships of future focus via (a) job search intensity, (b) job search procrastination, and (c) haphazard job search through job interviews to reemployment status. These positive indirect relationships will be weaker when job seekers are more autonomously motivated to engage in job search.

Hypothesis 9. Autonomous job search motivation moderates the negative indirect relationships of trait procrastination via (a) job search intensity, (b) job search procrastination, and (c) haphazard job search through job interviews to reemployment status. These negative indirect relationships will be weaker when job seekers are more autonomously motivated to engage in job search.

2. Method

2.1. Study context

Our study was conducted among recently unemployed job seekers aged between 25 and 49 years who received unemployment benefits from the Dutch Employee Insurance Agency (UWV). In the Netherlands, unemployed job seekers who are psychologically and physically able to work can apply for unemployment benefits from the Employee Insurance Agency. The level of the unemployment benefits is calculated based on 75% of gross earnings for the first two months, and 70% of gross earnings for the following months (UWV, n.d.). The duration of the unemployment benefits depends on the individual employment record with a minimum of three months and a maximum of 38 months (UWV, n.d.). Unemployed individuals with a disability or disease can apply for other types of unemployment benefits. As such, these individuals were not included in our study.

In addition to receiving unemployment benefits, unemployed job seekers can make use of reemployment guidance provided by the agency. At the time our study was conducted, job seekers aged 25 to 49 could use online services to assist in their search, for example to search for job opportunities and attend webinars (Berghuis & Tabois, 2015). Face-to-face meetings or phone calls with reemployment counselors were scheduled in the fourth, seventh, and tenth month after unemployment. For unemployed individuals aged 18 to 26 and over 50, and long-term unemployed, intensive guidance was provided (Berghuis & Tabois, 2015). For example, job seekers aged over 50 could attend a 10-week training program. Given the aim of our study to examine the role of personality attributes and motivation in self-regulatory job search behavior, we focused on unemployed job seekers aged 25 to 49 who needed to search for a job in a relatively independent manner receiving minimal guidance.

2.2. Participants and procedure

A random nationwide sample of 4999 individuals who were registered as unemployed job seekers receiving unemployment benefits from the Employee Insurance Agency in the Netherlands was drawn in March 2015. All study participants had to meet the following eligibility criteria: Age ranging from 25 to 49, minimum educational level of high school, available for work for at least 18 h a week, and being recently unemployed (i.e., receiving unemployment benefits for no more than 10 weeks). Data were collected as part of a larger research project (Wanberg et al., 2020).

At Time 1, selected individuals received an email invitation, with a link to the web survey and a personal login code. They were offered a €15 incentive to enroll in the study and to complete the first survey, which included our measures of future focus, trait procrastination, job search motivation, and demographics. Four weeks after the Time 1 survey participants were invited by email to fill out the Time 2 survey, measuring job search intensity, job search procrastination, haphazard job search, and job interviews. We asked participants to report on their job search behavior over the past month, since this timeframe gave them the opportunity to engage in this behavior and to recall their actions (Albarracin et al., 2014). In this way we also temporally separated predictor and outcome variables, which is recommended to control for common method bias (Podsakoff et al., 2003). The invitation for the Time 3 survey (measuring reemployment status) followed 22 weeks after enrollment in the Time 1 survey.

Of the 4999 invited individuals, 808 agreed to participate in the study (response rate = 16%). Of these, 107 individuals were redirected out of the survey because they reported that they were no longer unemployed or failed to indicate their employment status. Also, we removed 10 cases because they did not meet the study eligibility criteria. Of the remaining participants, 620 completed the Time 1 survey. Of these, 491 participants (response rate = 79%) completed the Time 2 survey, and 421 participants (response rate = 68%) completed the Time 3 survey. The response rates in our study are comparable to response rates in other studies among unemployed job seekers in the Netherlands (Koen et al., 2010; Koen et al., 2016). Since our hypotheses focus on the relationship of Time 1 personality attributes and job search motivation with Time 2 job search behaviors, we removed 129 individuals who did not complete the Time 2 survey. Also, 94 individuals who stopped looking for work or were reemployed at Time 2 were excluded because for these participants the Time 2 job search measures do no provide valid indications of their job search behaviors (e.g., because these individuals found reemployment shortly after the Time 1 survey, and because the job search measures reflect behaviors in the four weeks between Time 1 and 2, these individuals likely have not engaged in job search in these four weeks). Thus, our final sample consisted of 397 individuals, of which 225 (56.7%) were female and 172 (43.3%) were male. The average age was 39.65 years (SD = 6.81), and 43.8% (n = 174) held a bachelor's or master's degree. Participants worked on average 33.12 h a week in their last job (SD = 7.89) and they mainly worked in human health, social work and other services before they became unemployed. The average unemployment duration was 4.30 weeks (SD = 1.07). The harmonized unemployment rate in the Netherlands was 7.0% at the study start (OECD, 2016).

To check for selective non-response, we compared participants (n = 397) to nonparticipants (n = 4602) using demographic data available from the Dutch Employee Insurance Agency. We used univariate analyses of variance to test for differences between the two groups on the continuous variables, and crosstabs to test for differences on the categorical variables. The results of these analyses revealed that the percentage of males and females in both groups was not significantly different, $\chi^2(1) = 2.824$, $p = .093$. However, participants were with a mean age of 39.65 years (SD = 6.81) older than nonparticipants (M = 35.71, SD = 7.28), $F(1, 4988) = 108.297$, $p < .001$, $\eta^2 = 0.021$ (small effect). Also, participants more often held a Bachelor's or Master's degree than nonparticipants, $\chi^2(8) = 26.646$, $p = .001$, Cramer's $V = 0.073$ (small effect). We found no significant differences between participants and nonparticipants in the number of hours they had worked in their last job, $F(1, 4982) = 0.008$, $p = .928$, the number of hours they were available for work, $F(1, 4989) = 0.131$, $p = .718$, and the number of hours their unemployment benefit was based on, $F(1, 4982) = 0.569$, $p = .451$.

2.3. Measures time 1

2.3.1. Future focus

We used three items of the Temporal Focus Scale of Shipp et al. (2009) to measure a future focus, rated on a scale from 1 ("never") to 7 ("constantly"). The original English items were translated into Dutch using translation back-translation procedures. An item example is: "I think about what the future has in store" (Cronbach's alpha = 0.77).

2.3.2. Trait procrastination

To measure trait procrastination, we used a shortened 9-item version (cf. Van Hooft et al., 2005) of the General Procrastination Scale (Lay, 1986). Sample items include: "I generally delay before starting on work I have to do" and "In preparing for some deadline, I often waste time by doing other things". Participants indicated how true or untrue each statement was using a scale with anchors 1 ("very untrue of me") to 5 ("very true of me") (Cronbach's alpha =0.83).

2.3.3. Autonomous job search motivation

Autonomous job search motivation was measured with six items from the Situational Motivation Scale (SIMS; Guay et al., 2000), adapted such that the items referred to 'job search activities'. Based on reliability analysis, we omitted one item (e.g., "I am doing these activities for my own good") because of its low item-total correlation. Cronbach's alpha for the remaining five items was 0.70. Sample items include: "I engage in job search activities because these activities are interesting" and "I engage in job search activities because I believe that these activities are important for me" (1 = "completely disagree" to 5 = "completely agree").

We conducted a confirmatory factor analysis (CFA) using Mplus 7.11 (Muthén & Muthén, 1998) to examine the distinctiveness of the trait procrastination, future focus, and autonomous job search motivation variables (n = 397; no missing data). We chose maximum likelihood estimation because our data were normally distributed. Trait procrastination, future focus, and autonomous job search motivation were all modeled as first-order latent factors. We evaluated overall goodness of fit using the $\chi 2$ likelihood ratio statistic, the comparative fit index (CFI), root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR). Acceptable fit was judged by CFI values greater than 0.95 and RMSEA and SRMR values less than or equal to 0.08 (Hu & Bentler, 1999). Modification indices of the residual correlations showed that some items shared error variance. To attain a better model fit, the residual variances of some items were allowed to covary (Autonomous job search motivation items 1 and 2, 2 and 5, 3 and 5, 4 and 5; Trait procrastination items 3 and 7, 6 and 8). The hypothesized three-factor model showed a chi-square value of $\chi 2$ (110) = 212.943 and a good fit for the absolute measures of fit, RMSEA = 0.049, and SRMR = 0.050, and an acceptable fit for the comparative measure, CFI = 0.950. The three-factor model demonstrated a better fit than a two-factor model in which the two personality attributes variables loaded onto a single factor, $\chi 2$ (112) = 579.253, RMSEA = 0.103, SRMR = 0.085, CFI = 0.772, $\Delta \chi 2$ (2) = 366.310, $p < .001$, and a one-factor model in which all items loaded onto a single factor, $\chi 2$ (113) = 682.167, RMSEA = 0.113, SRMR = 0.097, CFI = 0.723, $\Delta \chi 2$ (3) = 469.224, $p < .001$.

2.4. Measures time 2

2.4.1. Job search intensity

We assessed job search intensity with an 11-item index of job search activities (Van Hooft et al., 2004), based on Blau's (1994) measure. One item was omitted because of its conceptual overlap with the job interview item which was also measured at Time 2 (e.g., "In the past month, how much time did you spend on preparing for job interviews?"). Similar measures of job search intensity have been used extensively in previous studies (e.g., Saks, 2006; Wanberg et al., 2005), and their validity has been supported by studies reporting significant relationships with other indications of job search activity (e.g., counselor ratings, database activity, amount of hours spent on job search; Van Hooft, 2014). Participants had to indicate how much time they had spent in the past month on several job search activities such as "Contacted employment agencies" and "Looked for jobs on the Internet" (1 = "no time at all" to 5 = "a great deal of time"). Cronbach's alpha for the ten items of job search intensity was 0.81.

2.4.2. Job search procrastination

Job search procrastination was measured with four items based on Van Hooft's (2014) definition of job search procrastination and measures of task procrastination used in previous studies (Turban et al., 2013). Sample items include: "How often in the past month did you put off completing tasks related to your job search?" and "How often in the past month have you procrastinated intended job search activities?". Responses were made on a 5-point scale ranging from 1 ("never") to 5 ("very often"). Cronbach's alpha was 0.88.

2.4.3. Haphazard job search behavior

We assessed the degree to which participants engaged in haphazard job search behavior with four items of the job search strategies measure developed and validated by Crossley and Highhouse (2005), and adapted to Dutch by Koen et al. (2010). An item example is: "My job search was more or less haphazard". Scale anchors ranged from 1 ("strongly disagree") to 5 ("strongly agree") (Cronbach's alpha = 0.73).

2.4.4. Job interviews

Participants were asked to report on the number of job interviews they have had in the past month. To reduce skewness, we applied log transformation on this variable.

We examined the distinctiveness of the Time 2 job search behavior variables (i.e., job search intensity, job search procrastination, and haphazard job search) with CFA using Mplus 7.11 (Muthén & Muthén, 1998) (n = 397; no missing data). All scale variables were modeled as first-order latent factors. The residual variances of some items were allowed to covary (Job search intensity items 4 and 5, 5 and 10, 7 and 10, 8 and 10). Results showed an acceptable fit of the three-factor structure: $\chi 2$ (128) = 278.181; RMSEA = 0.054; SRMR = 0.069; CFI = 0.934. Also, the three-factor model fitted the data significantly better than a two-factor model in which job search procrastination and haphazard job search loaded onto one factor and job search intensity loaded onto one factor, $\chi 2$ (130) = 545.515, RMSEA = 0.090, SRMR = 0.088, CFI = 0.816, $\Delta\chi 2$ (2) = 267.334, $p < .001$, and a model in which all items loaded onto a single factor, $\chi 2$ (131) = 1036.744, RMSEA = 0.132, SRMR = 0.144, CFI = 0.600, $\Delta\chi 2$ (3) = 758.563, $p < .001$.

2.5. Measure time 3

2.5.1. Reemployment status

Study participants were asked to indicate their current employment status at Time 3. For participants who did not complete the Time 3 survey, Employee Insurance Agency data were used where possible to provide employment status. We coded reemployment status as 0 = 'unemployed' and 1 = 'reemployed'.

2.6. Control variables

We measured several potentially relevant control variables at Time 1, including age (in years), gender (0 = female, 1 = male), education (0 = high school/vocational degree, 1 = bachelor's/master's degree), financial strain (3 items; Cronbach's alpha = 0.88; Vinokur & Caplan, 1987), employment commitment (one item; Feather, 1990), and job search self-efficacy (6 items; Cronbach's alpha = 0.82; Van Ryn & Vinokur, 1992). In previous research these variables have been associated with job search behavior and outcomes (Kanfer et al., 2001; Van Hooft et al., 2020). Regarding biographical variables, research demonstrates that younger and higher educated job seekers show more job search activity and have a greater likelihood of being employed (Kanfer et al., 2001). In addition, financial strain, employment commitment, and job search self-efficacy have been found to relate positively to job search behavior and (re)employment status (Kanfer et al., 2001; Van Hooft et al., 2020; Wanberg et al., 2002). Based on TMT (Steel & König, 2006), we also expected that employment commitment, as an indicator of the task value, and job search self-efficacy, as an indicator of the task expectancy, are associated with job search behavior.

Correlational analyses of our study variables indicated that gender and financial strain were not significantly associated with reemployment status and only with some of the job search behaviors (see Table 1). To maximize statistical power and in line with recommendations (Bernerth & Aguinis, 2016), we excluded gender and financial strain from the further analyses. We included age, education, employment commitment, and job search self-efficacy as control variables, based on the significant correlations that were in the expected direction (see Table 1) and theory and empirical research as described above.

3. Results

We tested our hypotheses with observed variable path analysis using robust weighted least squares estimation in Mplus 7.11 (Muthén & Muthén, 1998), including future focus, trait procrastination, and autonomous job search motivation as independent variables, job search intensity, job search procrastination, and haphazard job search as mediating variables, and job interviews and reemployment status as outcome variables. Age, education, employment commitment, and job search self-efficacy were included as control variables in the prediction of job search behavior, job interviews, and reemployment status. We first examined the model fit of the hypothesized model (including control variables but without the interactions). Results showed acceptable fit of the data, $\chi 2$ (12, N = 397) = 26.706, RMSEA =0.056, CFI = 0.962.

In Hypotheses 1–3, we proposed that future focus, trait procrastination, and autonomous job search motivation would relate to the three behavioral job search dimensions. Results of the path analysis (see also Fig. 1) showed that trait procrastination was significantly related to job search behavior in the expected directions (respectively, with job search intensity: $\beta = -0.182$, $p = .001$; job search procrastination: $\beta = 0.576$, $p < .001$; and haphazard job search: $\beta = 0.117$, $p = .025$). Also, we found a positive and significant relationship of future focus with job search intensity ($\beta = 0.207$, $p < .001$), but not with job search procrastination ($\beta = 0.010$, $p = .830$) or haphazard job search ($\beta = 0.044$, $p = .393$). Autonomous job search motivation was unrelated to the three dimensions of job search behavior (respectively, with job search intensity: $\beta = 0.010$, $p = .852$; job search procrastination: $\beta = -0.043$, $p = .363$; and haphazard job search: $\beta = 0.003$, $p = .954$). In sum, our predictions on the relations of the time-related personality attributes with job search behavior were partially supported (i.e., support for Hypotheses 1a and 2a–c, but not for Hypothesis 1b–c). The results did not support the expected relations of autonomous job search motivation with job search behavior (Hypothesis 3a–c).

Hypotheses 4 and 5 concerned the interaction of autonomous job search motivation with future focus and trait procrastination predicting job search behavior. We conducted six conditional path analyses: three analyses testing the interaction effect of autonomous job search motivation and future focus on each of the three behavioral job search dimensions, and three analyses testing the interaction effect of autonomous job search motivation and trait procrastination on each of the three behavioral dimensions. All predictor and control variables were first mean centered, to enhance the interpretability of the data (Hayes, 2013).

Hypothesis 4 predicted that autonomous job search motivation would moderate the positive relation between future focus and job search intensity (4a), and the negative relations with job search procrastination (4b) and haphazard job search (4c). However, none

Table 1
Descriptive statistics and correlations.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Control variables																
1. Age	39.65	6.81	(−)													
2. Gender[a]	0.43	0.50	0.079	(−)												
3. Education[b]	0.44	0.50	−0.132**	−0.065	(−)											
4. Financial strain	2.97	0.90	−0.057	0.110*	−0.192**	(0.88)										
5. Employment commitment	4.45	0.71	−0.041	0.095	0.017	0.230**	(−)									
6. Job search self-efficacy	3.70	0.62	0.135**	−0.057	0.068	−0.078	0.146**	(0.82)								
Time 1 variables																
7. Trait procrastination	2.33	0.62	−0.114*	0.038	0.125*	−0.113*	−0.243**	−0.338**	(0.83)							
8. Future focus	4.75	1.04	0.037	0.044	−0.017	0.176**	0.302**	0.268**	−0.248**	(0.77)						
9. Autonomous job search motivation	3.36	0.68	0.036	−0.107*	0.008	−0.099*	0.206**	0.343**	−0.225**	0.237**	(0.70)					
Time 2 variables																
10. Job search intensity	2.88	0.64	−0.047	0.016	−0.132**	0.321**	0.240**	0.360**	−0.348**	0.347**	0.200**	(0.81)				
11. Job search procrastination	2.10	0.85	−0.152**	0.000	0.187**	−0.085	−0.082	−0.239**	0.604**	−0.137**	−0.172**	−0.265**	(0.88)			
12. Haphazard job search	2.59	0.79	−0.198**	−0.065	−0.250**	0.203**	−0.135**	−0.294**	0.192**	−0.068	−0.114*	−0.014	0.193**	(0.73)		
13. Job interviews	0.27	0.28	−0.026	0.208**	0.115*	−0.014	0.181**	0.233**	−0.166**	0.143**	0.121*	0.183**	−0.142**	−0.243**	(−)	
Time 3 variable																
14. Reemployment status[c]	0.42	0.50	−0.177**	0.085	0.107*	−0.033	0.144**	0.049	0.017	0.010	0.005	0.073	−0.073	−0.125*	0.299**	(−)

$N = 397$. Cronbach's alpha reliabilities are listed along the diagonal in parentheses.
[a] 0 = female, 1 = male.
[b] 0 = high school/vocational degree; 1 = bachelor's/master's degree.
[c] 0 = unemployed, 1 = reemployed.
* $p < .05$ (2-tailed).
** $p < .01$ (2-tailed).

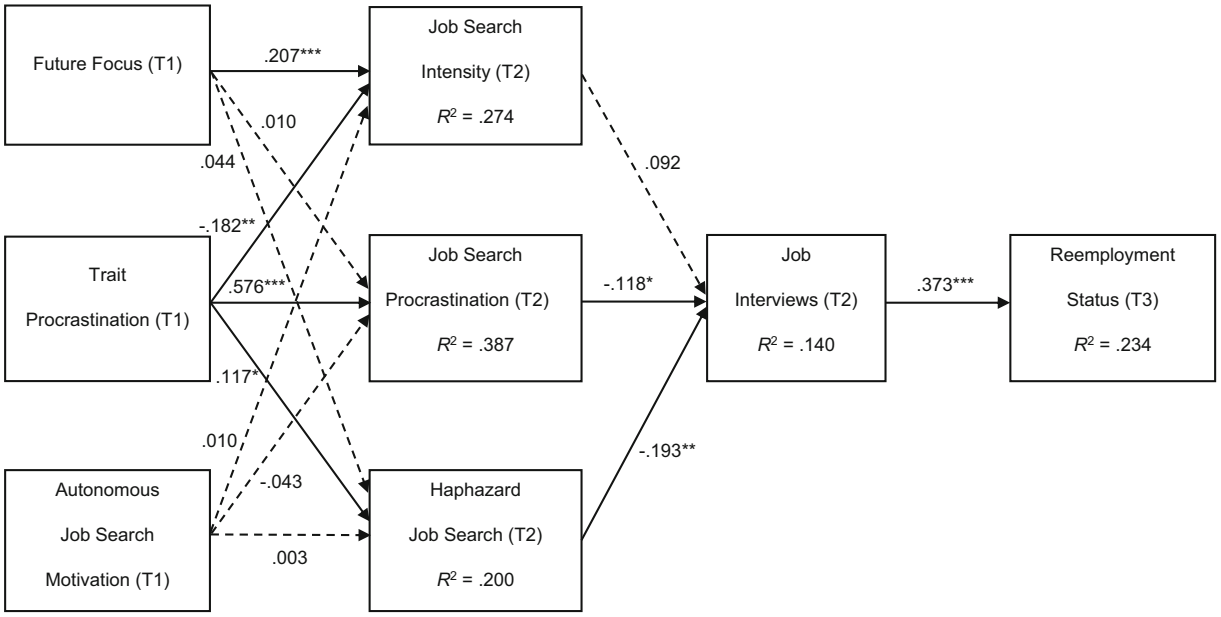

Fig. 1. Results for Hypotheses 1–3 and 6–7.
Note. $N = 397$. Standardized path coefficients are shown. Solid lines represent significant hypothesized paths and dashed lines non-significant hypothesized paths. Results for Hypotheses 4–5 and 8–9 are not displayed for reasons of clarity. $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$ (2-tailed).

of the interactions were significant (respectively, on job search intensity: $B = 0.055$, $p = .164$; on job search procrastination: $B = 0.075$, $p = .207$; and on haphazard job search: $B = 0.078$, $p = .080$). Thus, Hypothesis 4a–c was not supported. Hypothesis 5 proposed that autonomous job search motivation would moderate the negative relation between trait procrastination and job search intensity (5a), and the positive relations with job search procrastination (5b) and haphazard job search (5c). In contrast to Hypothesis 5a, the interaction of trait procrastination with autonomous job search motivation on job search intensity was not significant ($B = -0.110$, $p = .140$). However, autonomous job search motivation moderated the relation between trait procrastination and job search procrastination ($B = -0.194$, $p = .032$). Subsequent simple slopes analyses showed that when autonomous job search motivation was high (1*SD* above the mean), the association of trait procrastination with job search procrastination was less positive ($B = 0.626$, $p < .001$) than when autonomous job search motivation was low (1*SD* below the mean; $B = 0.888$, $p < .001$; see Fig. 2), supporting Hypothesis 5b. Furthermore, autonomous job search motivation moderated the relation between trait procrastination and haphazard job search ($B = -0.224$, $p = .007$). When autonomous job search motivation was low, the relationship between trait procrastination and haphazard job search was significantly positive ($B = 0.269$, $p < .001$), while this relationship was no longer significant when autonomous job search motivation was high ($B = -0.034$, $p = .738$; see Fig. 2), yielding support for Hypothesis 5c.

Hypothesis 6a–c proposed that job search intensity would be positively related to job interviews, and that job search

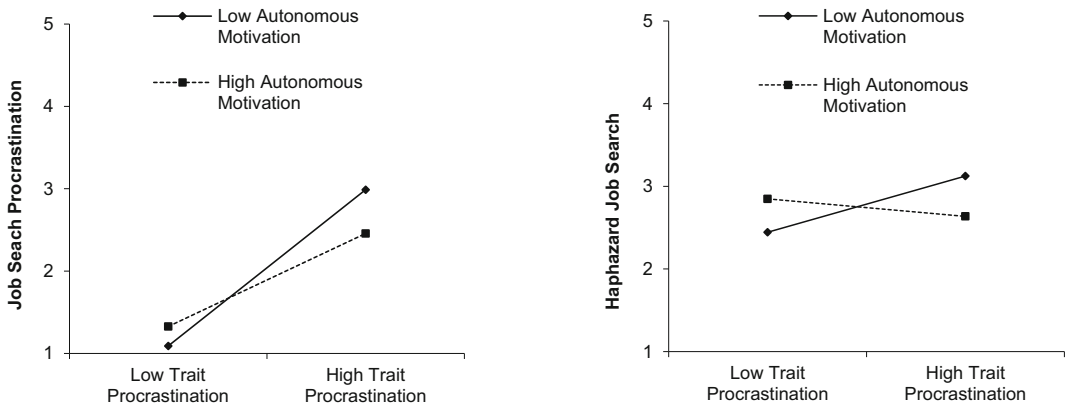

Fig. 2. Interaction between trait procrastination and autonomous job search motivation.
Note. Results are shown of the relation between trait procrastination and job search procrastination, and between trait procrastination and haphazard job search, as moderated by autonomous job search motivation (1*SD* below and 1*SD* above the mean).

procrastination and haphazard job search would be negatively related to job interviews. As shown in Fig. 1, results partially supported our predictions: job search procrastination ($\beta = -0.118$, $p = .024$) and haphazard job search ($\beta = -0.193$, $p = .001$) were negatively related to the number of job interviews. There was, however, no significant association between job search intensity and the number of job interviews ($\beta = 0.092$, $p = .135$). In sum, the findings supported Hypothesis 6b and c, but not Hypothesis 6a. In support of Hypothesis 7, the number of job interviews was positively related to reemployment status ($\beta = 0.373$, $p < .001$).

Before testing Hypotheses 8 and 9, we first examined the indirect effects of future focus, trait procrastination, and autonomous job search motivation on reemployment status through job search behavior and job interviews, using 10,000 bootstrap samples. We found no significant indirect effect of future focus and autonomous job search motivation on reemployment status via the job search behaviors and job interviews ($B = 0.003$: 95% CI [−0.011, 0.021]; $B = 0.003$; 95% CI [−0.011, 0.023], respectively). However, the total indirect effect of trait procrastination on reemployment status was statistically significant ($B = -0.068$; 95% CI [−0.131, −0.023]), as explained by job search procrastination ($B = -0.043$; 95% CI [−0.097, −0.006]), and haphazard job search ($B = -0.014$; 95% CI [−0.038, −0.002]). These results indicate that trait procrastination related negatively to reemployment status because of increased levels of job search procrastination and haphazard job search, and a lower number of job interviews.

Hypothesis 8a–c proposed that autonomous job search motivation would moderate the positive indirect relationships of future focus via job search behavior and job interviews to reemployment status. However, the finding that the interactions of future focus with autonomous job search motivation on job search intensity, job search procrastination, and haphazard job search were non-significant (see Hypothesis 4a–c), implies that Hypothesis 8a–c is not supported. Furthermore, the interaction of trait procrastination with autonomous job search motivation on job search intensity was not significant (see Hypothesis 5a), implying that Hypothesis 9a in which we predicted that autonomous job search motivation would moderate the negative indirect relationship of trait procrastination via job search intensity and job interviews to reemployment status is not supported. We did test the conditional indirect effects of trait procrastination on reemployment status via job search procrastination (Hypothesis 9b) and haphazard job search (Hypothesis 9c), and through job interviews for different values of autonomous job search motivation, using 10,000 bootstrap samples. The conditional indirect effect via the job search procrastination path was statistically significant ($B = 0.010$; 95% CI [0.000, 0.036]). Further inspection of the results showed that the indirect effect of trait procrastination on reemployment status via job search procrastination and job interviews was significant for low levels of autonomous job search motivation ($B = -0.046$; 95% CI [−0.107, −0.003]) as well as for high levels of autonomous job search motivation ($B = -0.032$; 95% CI [−0.074, −0.003]). In line with Hypothesis 9b, autonomous job search motivation attenuated the negative indirect relation between trait procrastination and reemployment status, although it was still significantly negative for high levels of autonomous job search motivation. Also, the conditional indirect effect via the haphazard job search path was statistically significant ($B = 0.021$; 95% CI [0.005, 0.055]). The indirect effect of trait procrastination on reemployment status via haphazard job search and job interviews was significant for low levels of autonomous job search motivation ($B = -0.026$; 95% CI [−0.058, −0.008]), but not for high levels of autonomous job search motivation ($B = 0.003$; 95% CI [−0.015, 0.030]), which supported Hypothesis 9c. These results indicate that the negative indirect relation between trait procrastination and reemployment status through haphazard job search and job interviews was only significant for job seekers with low levels of autonomous job search motivation.

4. Discussion

In this study we applied a temporal perspective examining the role of time-related personality attributes and job search motivation in the job search process. More specifically, integrating TMT (Steel & König, 2006) and SDT (Deci & Ryan, 2000) we tested a model to explore how future focus, trait procrastination, and autonomous job search motivation are related to self-regulatory job search behaviors, and in turn how these behaviors are related to the number of job interviews and reemployment status.

The findings of the present study underline the importance of a temporal perspective of job search and support the applicability of TMT (Steel & König, 2006) to job search. Our results indicate that time-related personality attributes play a key role in the job search process. Trait procrastination was positively related to job search procrastination and haphazard job search, and negatively related to job search intensity. Also, trait procrastination was negatively related to reemployment status, through haphazard job search, job search procrastination and job interviews. The finding that a high tendency to delay is detrimental to self-regulatory job search behavior and outcomes extends previous research on the hindering effects of trait procrastination for behavior in predominantly academic contexts (Steel, 2007) to a job search context. As predicted, future focus was positively associated with job search intensity, but this personality attribute did not explain unique variance above and beyond trait procrastination in job search procrastination and haphazard job search. However, correlational analyses showed that the associations of future focus with job search procrastination and haphazard job search were in the expected negative direction. Consistent with empirical evidence demonstrating that devoting one's attention to the future facilitates behavior and performance in the work and academic domain (Andre et al., 2018), our findings suggest that having a future focus may be beneficial for self-regulatory behavior in a job search context. Taken together, the study results indicate that narrow time-related personality attributes have important implications for how and when job seekers engage in job search, which nuances earlier research on the role of broad personality factors in explaining job search behavior (Kanfer et al., 2001; Saks, 2005).

Whereas trait procrastination and future focus explained unique variance in one or more job search behaviors, autonomous job search motivation failed to add in the prediction of the three behavioral job search dimensions (although the zero-order correlations were significant and in the expected direction). Previous studies showed that autonomous motivation is a significant predictor of job search intensity and persistence, and the use of self-regulatory activities (da Motta Veiga & Gabriel, 2016; Vansteenkiste et al., 2004). Time-related personality attributes were however not included as predictors of job search behavior in these studies. The current study

findings thus imply that trait procrastination and future focus can be more important to self-regulatory job-seeking behaviors than autonomous job search motivation.

Rather than a direct effect we found evidence for a moderating role of autonomous job search motivation. In further support of the applicability of TMT (Steel & König, 2006) and SDT (Deci & Ryan, 2000) to job search, autonomous job search motivation moderated the relationships between trait procrastination and job search procrastination and between trait procrastination and haphazard job search. Also, the negative relation of trait procrastination with reemployment status through haphazard job search and job interviews was only significant for job seekers with low levels of autonomous job search motivation. These findings extend previous research on the buffering role of autonomous motivation in the relation between personality attributes and self-regulatory behavior (Katz et al., 2006; Katz et al., 2014), suggesting that framing job search as personally important can help job seekers with a high tendency to delay to regulate their search behavior in a more optimal way. Given that trait procrastination hinders self-regulatory job search behaviors, future research could identify other variables that weaken its negative effect. Another potential moderator might be job search self-efficacy, since research shows that being confident about performing tasks successfully may help procrastinators to implement their planned actions and to be more persistent (Steel, 2007; Van Eerde, 2015). The interaction between future focus and autonomous job search motivation was not significant, suggesting that job seekers who are less future-focused may not benefit from being autonomously motivated to engage in job search. Other factors, such as whether individuals have a positive or negative attitude towards the future and the specific content of their future goals, may affect the interplay between future focus and autonomous motivation. Additionally, future studies could examine whether autonomous job search motivation mediates the relation between future focus and job search behavior, rather than interact with future focus. Perhaps that job seekers who focus on future goals already experience their engagement in job search activities as more important and more congruent with their values because they are better able to anticipate the future consequences of their present behavior.

A final result that bears theoretical implications is that job search intensity did not explain unique variance in the number of job interviews above and beyond job search procrastination and haphazard job search. Although this finding was contrary to our predictions, the correlation between job search intensity and the number of job interviews was in the expected direction and, according to meta-analytic results, its size is comparable to sizes found in previous studies (Van Hooft et al., 2020). However, our finding supports the idea that it is important to include different behavioral job search dimensions in future research examining the job search process (Kanfer et al., 2001; Van Hooft et al., 2013).

4.1. Practical implications

The finding that trait procrastination impairs self-regulatory job search behavior and its outcomes has practical implications for job seekers and reemployment counselors. Given the considerable role of trait procrastination in the job search process, it is recommended to take this personality attribute into account in reemployment guidance. Reemployment counselors may determine job seekers' tendency to delay early in the search process and provide support and training to those with a high tendency to delay. There is evidence suggesting that procrastinators can be trained to develop self-regulatory skills involving planning and organizing (Steel, 2007; Van Eerde, 2015). Especially goal setting has been found to reduce procrastination (Ariely & Wertenbroch, 2002). During reemployment guidance counselors can help job seekers with a high tendency to delay to set specific goals and deadlines for their job search. Furthermore, strategies for dealing with rejections and distractions can be provided.

Our findings also suggest that for job seekers with a high tendency to delay it may be beneficial to be autonomously motivated to engage in job search. That is, considering job search as personally important for one's goals or values can help these job seekers to regulate their job search behavior in a more optimal way. Reemployment counselors can foster autonomous types of motivation by adopting an autonomy-supportive counseling style, in which they show encouragement and provide competence-supportive feedback, rather than a controlling style, which is often used to activate job seekers who procrastinate (Vansteenkiste & Van den Broeck, 2018). For instance, counselors may encourage job seekers to explore reasons why searching for a job is important to them and how the job search process relates to their personal goals and objectives. Also, research shows autonomous motivation can be promoted by focusing on learning-oriented goals instead of performance-oriented goals (Noordzij et al., 2013). In practice this means that job seekers should be encouraged to focus on what they have learned from their engagement in various job search activities, rather than to focus on the outcomes of performed activities. A learning goal orientation may not only be conducive to autonomous motivation, but it can also help job seekers to deal with rejections and to persist in their search (da Motta Veiga & Turban, 2014).

4.2. Limitations and future directions

Our study relied on the use of self-report measures to collect the data. This may raise the question whether common method variance inflated the relations between the measured variables (Podsakoff et al., 2003). Although we cannot completely rule out this possibility, we accounted for this concern by measuring our predictor and outcome variables at different time points. Also, we asked participants to report on their job search activity over the past month, which limits the possibility of recall bias (Albarracin et al., 2014). Finally, although we relied on self-report measures for the number of interviews and reemployment status, these measures are relatively objective and less susceptible to response biases (Wanberg et al., 1996).

The three-wave design of our study allowed us to examine job search as a self-regulated and unfolding process including job search antecedents, behaviors, and outcomes. However, we were unable to investigate how personality and motivation dynamically affect changes in job search behavior over time. Since job search is a lengthy and dynamic process, it is likely that job seekers' motivation to search for a job and their behavior is subject to continual change (Kanfer et al., 2001). For instance, empirical evidence

shows that levels of autonomous job search motivation decrease over time (da Motta Veiga & Gabriel, 2016), suggesting that the beneficial effects of autonomous motivation for job search behavior may not be longstanding. Future research could focus on changes in job search behavior using multiple time frames or diary measures to map job seekers' daily performed job search activities.

A final limitation of the present study may concern the generalizability of our results. Our sample consisted of job seekers who were unemployed for less than ten weeks at the start of the study. Unemployment duration is an important factor affecting job seekers' cognitions, health, and behavior (e.g., Paul & Moser, 2009). Thus, different relations between personality attributes, motivation, and job search behavior may exist for job seekers who are long-term unemployed. Furthermore, although unemployed job seekers are a very commonly studied subpopulation in research on the job search process (Boswell et al., 2012), the current study sample is not representative of all job seekers. To generalize our findings to other types of job seekers, we encourage researchers to examine the relation between personality attributes, motivation, and job search behavior among new job entrants and employed job seekers. As for unemployed job seekers, it is important for new job entrants and employed job seekers to regulate their search behavior to find employment. Hence, it is very relevant to gain more insight into the factors that can help or hinder these types of job seekers during their search.

5. Conclusion

The present study emphasizes the relevance of a temporal perspective of job search, by demonstrating that time-related personality attributes play an important role in the job search process. Our results indicate that while future focus *promotes* the intensity of the search activities that job seekers engage in, trait procrastination *impairs* self-regulatory job search behavior and subsequent outcomes. Furthermore, the findings suggest that job seekers with a high tendency to delay can benefit from being autonomously motivated to engage in job search. We encourage researchers and practitioners to take the role of time-related personality attributes and their interaction with autonomous motivation in the job search process into account in future research and counseling, and to examine other potential strategies for dealing with procrastination.

CRediT authorship contribution statement

Sarah M. van den Hee: Conceptualization, Methodology, Software, Formal analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing, Project administration. **Edwin A.J. van Hooft:** Conceptualization, Methodology, Formal analysis, Resources, Writing - original draft, Writing - review & editing, Supervision, Funding acquisition. **Annelies E.M. van Vianen:** Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Supervision, Project administration, Funding acquisition.

Declaration of competing interest

The authors whose names are listed immediately below certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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