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Article *in* Psychological Reports · May 2019

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Psychological Reports
2020, Vol. 123(4) 1117–1144

DOI: 10.1177/0033294119849020
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Experiences, Attitudes, and Behaviors of the Unemployed: The Role of Motivation and Psychological Needs

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Abstract
Alleviating the psychological burden of unemployment and preventing the unemployed from withdrawing from the labor market remains a priority for unemployment researchers and practitioners alike. Job search motivation and the differential

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relationships with experienced psychological need satisfaction (and need frustration) potentially induce different well-being (i.e., experiences), attitudinal outcomes (i.e., employment commitment), and behavioral outcomes (i.e., job search intensity) in unemployment. This study examined if job search motivation relates to the experiences, attitudes, and behavior of the unemployed over time through basic need satisfaction and frustration. In a two-wave study ($n_{T1} = 461$; $n_{T2} = 244$), the results demonstrated that job search motivation has no relationship with the affective experiences, attitudes toward employment, and job search behavior over time. It also showed that only controlled motivation and amotivation were significantly related to need frustration. Finally, only psychological need satisfaction, and not the frustration of their needs, was significantly related to affective experiences over time. The implications for unemployment and self-determination theory research are discussed, and recommendations for practitioners are made.

Keywords
Unemployment, affective experiences, employment commitment, job search behavior, self-determination theory, psychological need satisfaction, psychological need frustration

Introduction

Being without work is not only bad for society (Brand, 2015; Fourie, 2012) but also for the unemployed (Wanberg, 2012). It is, therefore, important that the unemployed find employment. The likelihood of transitioning from unemployment to employment depends on various factors (van Hooft, 2014). Among others, it depends on whether the unemployed feel well (Wanberg, 2012), are committed to employment, and are searching for jobs (Kanfer, Wanberg, & Kantrowitz, 2001). Understanding what influences the unemployed's well-being (i.e., affective experiences), their attitudes (i.e., employment commitment), and their behavior (i.e., job search intensity) is crucial to alleviate the psychological burden of unemployment and to remain responsive job seekers.

One of the proposed factors influencing the experiences, attitude, and behavior of the unemployed is motivation (Vansteenkiste & Van den Broeck, 2018). Recent developments in motivational psychology suggest that not only the amount of motivation matters but also the type of motivation (the reasons for or the *why*) (Ryan & Deci, 2017). The self-determination theory (SDT) proposes that the types of motivation underlying behavior range on a continuum, from having little or no interest in pursuing an activity (i.e., amotivation) to pursuing the activity because one is compelled to do so (i.e., controlled) or because one concurs with the activity (i.e., autonomous) (Deci & Ryan, 2000;

Ryan & Deci, 2000). The closer people are to autonomous motivation, the more positive are the consequences in terms of well-being, attitudes, and behavior (Ryan & Deci, 2017).

Although considerable SDT research has been conducted in other domains, limited international research has assessed the implications of motivation in unemployment. The results of these studies were sometimes not replicated and at times not in line with the theoretical assumptions of SDT (e.g., Vansteenkiste, Lens, De Witte, De Witte, & Deci, 2004; Vansteenkiste, Lens, De Witte, & Feather, 2005). More research is thus needed to determine the relevance of SDT in unemployment, especially in developing countries with relatively high unemployment rates and little or no financial assistance for the unemployed. Several researchers have advocated that the availability of choice and safety nets could influence motivation and the consequences it produces (Ryan & Deci, 2017). This study, therefore, aims to examine implications of the different types of motivation for the experiences, commitment, and job search behavior of the unemployed in South Africa.

We furthermore aim to understand the processes underlying these relationships. Within SDT, the different types of motivation are said to have different implications for well-being, attitudes, and behavior because they relate differently to the basic psychological needs (Vansteenkiste & Van den Broeck, 2018). Basic psychological needs are the "innate psychological nutrients that are essential for ongoing psychological growth, integrity, and well-being" (Deci & Ryan, 2000, p. 229). Need satisfaction seems to be only one side of the coin. Although low need satisfaction may hamper people's functioning, the active thwarting of needs may spark defensiveness, ill-being, and even psychopathology (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013). Therefore, more recently, researchers also advocate for investigating the influence of the frustration of these needs (Van den Broeck, Ferris, Chang, & Rosen, 2016), even more so in unemployment where individuals are more prone to need frustration (Vansteenkiste & Van den Broeck, 2018). In response, this study aims to expand our understanding of need frustration by examining to which degree need frustration—next to need satisfaction—explains the associations between the different types of motivation and individuals' well-being, attitudes, and behavior.

In short, the study contributes to both unemployment and SDT literature in three ways. First, the outcomes of motivation are assessed in a presumably more challenging context where a safety net is absent. Second, we examine the relevance of and the most optimal type of motivation in the South African context over time. Third, both psychological need satisfaction and frustration are introduced. As such, we broaden the ecological validity of basic psychological needs, evaluate the relevance of psychological need satisfaction in unemployment, and explore the unique role of need frustration among individuals at risk. Both need satisfaction and frustration are specified as a pathway for explaining the impact

of motivation. In doing so, we broaden and refine our understanding of the pathways in which motivation influences affective experiences and responsiveness over time.

Motivation and unemployment

Various theories have been used to understand the motivation of the unemployed. Scholars have viewed unemployment, for example, from a perspective of self-regulation (e.g., Kanfer et al., 2001), expectancy-value theory (e.g., Van den Broeck, Vansteenkiste, Lens, & De Witte, 2010), and self-determination (e.g., Koen, van Vianen, van Hooft, & Klehe, 2016; Vansteenkiste et al., 2004, 2005). SDT is deemed valuable in providing a framework for explaining the role of motivation to search for a job in alleviating the negative experiences of the unemployed while fostering their responsiveness. This is because SDT allows to systematically explain the entire motivational process (Vansteenkiste & Van den Broeck, 2018). It also has an experiential and affective focus (Vansteenkiste & Mouratidis, 2016) and differentiates different types of motivation (Vansteenkiste et al., 2005).

Specifically, when considering job search motivation, SDT first considers whether some unemployed are simply going through the motions. In this case, the unemployed is said to be amotivated (Vansteenkiste & Van den Broeck, 2018). When amotivated, the person invests little or no energy in the activity for a variety of reasons such as feeling incapable, lacking interest in the activity, or actively resisting the activity (Ryan & Deci, 2017). Second, the theory also examines whether the unemployed search because they need the money (external financial regulation), because others are forcing them (external social regulation), or because they feel guilty or ashamed (introjected regulation) as types of controlled motivation. Finally, SDT considers that the unemployed may search for a job because they find it meaningful (identified regulation) (Vansteenkiste & Van den Broeck, 2018), which is defined as a type of autonomous motivation[1] (Ryan & Deci, 2017). The value of differentiating between types of motivation is supported by empirical evidence illustrating their affective, attitudinal, and behavioral consequences (Ryan & Deci, 2017). More specifically, amotivation and controlled motivation are associated with a range of negative consequences (e.g., ill-being, unfavorable attitudes and unsatisfactory performance), whereas the opposite is observed for autonomous motivation (i.e., well-being, favorable attitudes, and optimal performance) (see Deci, Olafsen, & Ryan, 2017; Ryan & Deci, 2017 for overviews).

Based on this literature, it may be assumed that the different types of motivation also have implications for affective, attitudinal, and behavioral dimensions of unemployment that capture the complexity of unemployment (De Witte, Hooge, & Vanbelle, 2010). The *affective experiences* of the unemployed are best understood from the latent deprivation theory postulated by

Jahoda (1982). According to this theory, employment serves two sets of functions—manifest (referring to monetary rewards) and latent. The latent functions include (a) establishing a daily time structure, (b) sharing contact and experience with others outside of the immediate family, (c) having a collective purpose, (d) forming a social identity through social status, and (e) engaging in regular activities (Jahoda, 1982). In contrast to individuals participating in employment, the unemployed are deprived of the opportunity to fulfil these functions and therefore have negative experiences (Jahoda, 1982). For example, the unemployed report negative experiences like boredom because of ill-structured days and a lack of regular activities or feel lonely because of a lack of social contact outside the home (De Witte et al., 2010). Attitudes toward employment are captured by *employment commitment,* which is defined as the importance or value that people attach to employment (Kanfer et al., 2001). Job search intensity captures job search effort and is defined as the frequency with which unemployed people have engaged in a variety of preparatory (i.e., speaking to others about possible job openings) and active (i.e., contacting an employment agency) job search activities in a specific time frame (Wanberg, 2012).

Theoretically, SDT proposes that more amotivation and controlled motivation would result in more negative experiences, whereas the opposite would hold for autonomous motivation (Vansteenkiste et al., 2004). SDT also expects that amotivation is associated with the worst outcomes for well-being (Ryan, Deci, & Grolnick, 1995). So, going through the motions of job search without having the motivation should produce the most negative experience, followed by controlled motivation where the unemployed feel compelled. Searching because one considers it valuable for an outcome that is personally important may lead to a more positive experience. So over time, the more autonomous unemployed should be least at risk for a negative experience. The amotivated unemployed will also likely attach very little value to employment, aligned with their lack of motivation for the job search activity. Those searching because they are compelled to do so will likely also report less employment commitment than their autonomous counterparts who will likely foster positive attitudes toward employment (Vansteenkiste et al., 2004, 2005).

Amotivation and controlled motivation hamper behavioral persistence over time, whereas autonomous motivation enables behavioral persistence (Ryan & Deci, 2017). Amotivated unemployed lack motivation to engage in any behavior, so they are also unlikely to engage in job search behavior (Vansteenkiste et al., 2004). So, amotivation should be the most detrimental to performance (Ryan et al., 1995). Unemployed who experience controlled motivation, in contrast, do have the intention to engage in job search behavior, but their engagement is likely to be relatively superficial. They should perform poorly over time, whereas those searching because it is valuable should perform better in the long run.

Consistent with theorizing, we hypothesize as follows:

Hypothesis 1a: Amotivation is positively associated with negative affective experiences and negatively associated with employment commitment and job search intensity.

Hypothesis 1b: Controlled motivation is positively associated with negative affective experiences and negatively associated with employment commitment and job search intensity.

Hypothesis 1c: Autonomous motivation is negatively associated with negative affective experiences and positively associated with employment commitment and job search intensity.

Results of previous studies were mostly in line with these theoretical propositions. Amotivation predicted negative experiences (Vansteenkiste et al., 2004), and so did controlled motivation (Vansteenkiste et al., 2004, 2005), although less strongly than amotivation. Contrary to expectations, autonomous motivation was shown to be unrelated (Vansteenkiste et al., 2005) or even positively related to negative experiences (Vansteenkiste et al., 2004), raising the questions whether autonomous motivation in the face of continuous failure could have a dark side (Vansteenkiste et al., 2004). Contrary to expectations, a positive correlation between controlled motivation and employment commitment was previously reported. As expected, the correlation between autonomous motivation and employment commitment was also positive (Vansteenkiste et al., 2004, 2005). Empirically, contrary to expectations, amotivation (Koen et al., 2016; Vansteenkiste et al., 2004) and controlled motivation (Vansteenkiste et al., 2004, 2005) were unrelated to search behavior in previous research. Autonomous motivation was a significant predictor of search (da Motta Veiga & Gabriel, 2016; Koen, Klehe, & van Vianen, 2015; Koen et al., 2016; Vansteenkiste et al., 2004, 2005) also over time (da Motta Veiga & Gabriel, 2016; Koen et al., 2016).

Given the mixed results reported in the literature, we deemed it important to further examine the associations between the different types of SDT and motivation. To provide a strong test of these relationships, we conducted longitudinal research in South Africa. Within this context, structural (e.g., high unemployment rate, 37%, in SA or their area) and human capital (e.g., long duration of unemployment and low educational levels) barriers reduce the probability of finding work (Kingdon & Knight, 2006). Financial barriers add to these challenges, as unemployment benefits are only available to a select few. These individual and contextual challenges could impact on motivation and the outcomes thereof. Moreover, we separated the measurements of motivation on the one hand and the unemployed's experiences, commitment, and job search

behavior on the other hand to examine the longitudinal relationships between motivation and unemployed's functioning.

Psychological need satisfaction and frustration

Job search motivation can influence experiences, attitudes, and behavior, but it can also influence psychological needs. Three psychological needs can be differentiated within SDT: autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2000). *Autonomy* concerns the need to experience a sense of ownership over one's behaviors, feelings, and thoughts and to engage in activities because one wants to do so (deCharms, 1968). For example, when feeling satisfied in the need for autonomy, the unemployed would experience a sense of control over decisions to apply for a job and that their decisions reflect their wishes. *Competence* concerns the need to experience a sense of effectiveness when engaging in an activity while also mastering new skills in the process (White, 1959). For example, when satisfied, the unemployed experience a sense of confidence and feel capable and energized to pursue an activity (e.g., going for an interview). *Relatedness* involves the need to develop meaningful and satisfying relationships (Baumeister & Leary, 1995), and the need to feel that one is adding value in the lives of others (Deci & Ryan, 2014). For example, if satisfied, the unemployed would experience a sense of closeness to and connection with those who support them in coping with the frustrations accompanying unemployment.

Recently, it is argued that studies should go beyond measuring need satisfaction versus the lack thereof, because needs can also be actively blocked or thwarted (Chen et al., 2015; Van den Broeck et al., 2016; Vansteenkiste & Ryan, 2013). Low levels of need satisfaction merely illustrate a lack of need satisfaction; it does not provide us with an indication of whether the needs are thwarted—which the level of need frustration would (Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011). Autonomy frustration is the experience of decisions as reflective of the wishes of others (e.g., when one has to do something that runs counter to one's own values). Competence frustration is the experience of insecurity or even feeling like a failure (e.g., when a person does not get the job after an interview), and satisfaction frustration is experiencing those providing social support as cold and distant (Chen et al., 2015). Previous studies empirically demonstrated that need satisfaction and need thwarting differently predict positive (e.g., positive affect, satisfaction with life, and vitality) and negative (i.e., burnout, disordered eating, exhaustion and negative affect) mental health outcomes (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011; Cordeiro, Paixão, Lens, Lacante, & Sheldon, 2016) and should be studied together to fully understand individuals' functioning.

Some researchers have theorized that the basic needs may not only foster the development of optimal motivation but may also flow from it (Vansteenkiste & Ryan, 2013). Hence, searching for a job because one has to go through the motions, even if you do not feel confident or positive about the outcomes (i.e., amotivation), could lower one's perceived autonomy and competence. When feeling alone in this futile venture, perceived relatedness is also undermined. Searching for a job because of financial or social pressure or because one feels guilty (i.e., controlled motivation) would also not satisfy basic psychological needs. Indeed, the search process becomes a series of "musts" and "shoulds" with little opportunity to experience choices as reflective of own wishes and most likely fewer experiences of effectance and mastery. Such an unemployed person may also experience little relatedness, especially from those who are exerting the pressure.

On the other hand, searching for a job because one feels that it is valuable to do so (i.e., identified regulation) has the potential to satisfy the basic psychological needs of the unemployed. If the job search is performed because it is viewed as important for achieving a self-selected desired goal, an unemployed individual can experience a sense of autonomy (because it is a self-selected desired goal), competence (because they feel effective in approaching potential employers), and relatedness (satisfying relationships because one aims to contribute to society and/or sustain one's family). Vansteenkiste and Ryan (2013) refer to this as a "positive cascading effect" (p. 266).

Consistent with theorizing, we hypothesize as follows:

Hypothesis 2a: Amotivation is negatively associated with need satisfaction.

Hypothesis 2b: Controlled motivation is negatively associated with need satisfaction.

Hypothesis 2c: Autonomous motivation is positively associated with need satisfaction.

The opposite would hold for the relation between the different types of motivation and need frustration. SDT argues that amotivation and controlled motivation would frustrate basic psychological needs. Indeed, passively engaging in job search, complying with obligations, or avoiding guilt in job search enhances perceived incongruence, doubts, and feelings of being disliked by and distant from others, especially when failing to obtain a job. In contrast, identified regulation has the potential to lower the frustration of basic psychological needs of the unemployed. Once again, if job search is performed because it is viewed as important, an unemployed individual should not feel pressured, insecure, or isolated.

Consistent with theorizing, we hypothesize as follows:

Hypothesis 3a: Amotivation is positively associated with need frustration.

Hypothesis 3b: Controlled motivation is positively associated with need frustration.

Hypothesis 3c: Autonomous motivation is negatively associated with need frustration.

However, although such a relationship is theorized (Vansteenkiste & Ryan, 2013), little research to date has investigated needs as outcomes of motivation. Research on prosocial behavior is an exception in this regard and shows that need satisfaction may explain the beneficial effects of autonomous motivation (Martella & Ryan, 2016; Weinstein & Ryan, 2010). More specifically, these studies concluded that engaging autonomously in prosocial behavior enhances well-being and that need satisfaction plays an important role in explaining the well-being benefits of this behavior (Ryan & Deci, 2017). Similarly, experimental studies (Legate, DeHaan, & Ryan, 2015; Legate, DeHaan, Weinstein, & Ryan, 2013) demonstrated compliance with instructions to ostracize others (i.e., controlled motivation) caused harm for the ostracizers because it frustrated their psychological needs (Ryan & Deci, 2017). In the unemployment domain, only one study (Koen et al., 2016) takes the role of basic psychological needs into account. By investigating the impact of need for autonomy and experienced autonomy on job search motivation, it did not examine need satisfaction's (or frustration's) potential as outcome of motivation of or as a pathway from motivation to experiential, attitudinal, and behavioral outcomes. In this study, we want to examine whether need satisfaction and need frustration are the underlying processes of the relationship between the different types of motivation and the well-being, attitudes, and behavior of the unemployed.

Theoretical links can be drawn between the psychological needs and the affective experiences, attitudes, and behavior of the unemployed (Vansteenkiste & Van den Broeck, 2018). For example, based on SDT, the unemployed experiencing autonomy, competence, and relatedness are likely to report less negative experiences because they would have more structured days filled with regular activities contributing to the community. They would also report more employment commitment as they integrate the importance of work with the self. Also, they are likely to search more intensively because their basic needs are nutrients providing energy to put effort into their journey to look for a job (Deci & Ryan, 1985). In line with SDT, several studies indicated that need satisfaction relates positively to indicators of well-being, negatively to indicators of ill-being, fosters positive attitudes, and enables continued performance (see Van den Broeck et al., 2016 for an overview in the work context). Similarly, need frustration may also come into play. For example, the unemployed reporting frustration of their needs for autonomy, competence, and relatedness could report more negative experiences (i.e., ill-structured days, boredom, feeling insignificant, interpersonal conflict and alienation). They may also try to become less involved in the unemployment process (Ryan & Deci, 2017; Vansteenkiste & Ryan, 2013) and attach less value to employment and lower job search intensity.

Consistent with theorizing, we hypothesize as follows:

Hypothesis 4a: Need satisfaction is negatively associated with negative affective experiences and positively associated with employment commitment and job search intensity.

Hypothesis 4b: Need frustration is positively associated with negative affective experiences and negatively associated with employment commitment and job search intensity.

In conclusion, we contend that job search motivation influences affective experiences, employment commitment, and job search intensity insofar motivation satisfies (or frustrates) the unemployed's basic psychological needs. We specifically hypothesize:

Hypothesis 5: Need satisfaction mediates the association of amotivation (Hypothesis 5a), controlled motivation (Hypothesis 5b), and autonomous motivatiton (Hypothesis 5c) with negative affective experiences, employment commitment, and job search intensity, and need frustration mediates the association between amotivation (Hypothesis 5d), controlled motivation (Hypothesis 5e), and autonomous motivation (Hypothesis 5f) and negative affective experiences, employment commitment, and job search intensity.

Method

Participants and procedure

Data were collected from unemployed individuals in Boipatong, a small informal settlement in the Gauteng Province of South Africa, at two points in time. In the absence of an official list of unemployed, a dual process was followed to recruit participants who meet the criteria of the expanded definition of unemployment (see Statistics South Africa, 2017) at Time 1: Convenience sampling (via door-to-door recruitment) and volunteer sampling (responses from an advertisement in the local newspapers and community radio stations). In this way, a variety of prospective participants were informed about the study, ensuring a more diverse sample. A unique code was assigned to all participants at Time 1, which they had to provide at Time 2 for verification purposes and to enable the researcher to match responses. We assessed their job search motivation and their experienced basic psychological need satisfaction and frustration at Time 1. Psychological need satisfaction and frustration are most likely to be experienced concurrently with the reasons for searching for a job. At Time 2, six months later, all participants were contacted, and we then assessed their

negative experiences, employment commitment, and job search behavior. These outcomes were separated temporally from motivation and experienced need satisfaction and frustration to determine whether more (or less) optimal types of motivation put the unemployed more (or less) at risk at a later time point. Structured interviews, based on the questionnaires, were conducted with most of the participants due to their low levels of education.

A total of 461 unemployed participated at Time 1. Of these, 244 participated again at Time 2. At Time 2, more females (59.80%) than males (40.20%) participated. Almost all participants (99.60%) were black and spoke Sesotho (52.00%) or isiZulu (16.40%). The majority reported not having completed (64.00%) or having only completed (32.00%) secondary education. On average, they were 36 years old (standard deviation (SD) = 10.95) and most had been unemployed for more than two years (73.80%). Slightly more than two thirds (65%) indicated that they had been mostly or always unemployed. Quite a few were single (73.40%), more than a third of them were living with parents or grandparents (or other family members) (38.90%), with slightly more than half of them reporting no other income in the household from either employment or self-employment (54.90%). On average, they had two individuals who were financially dependent on them (SD = 2), with almost two thirds (61.40%) reporting social assistance received by one or more in the household. Only 21.30% receive grants themselves.

Chi-square tests revealed no significant differences, between participants who responded at Time 1 and those who responded at both times (Time 1 and Time 2), in terms of their level of education ($\chi^2 = 0.03$, $p = .99$), marital status ($\chi^2 = 0.01$, $p = .94$), living situation ($\chi^2 = 2.97$, $p = .56$), unemployment duration ($\chi^2 = 1.79$, $p = .41$), employment history ($\chi^2 = 0.59$, $p = .74$), grant (self) ($\chi^2 = .45$, $p = .50$), grant (others) ($\chi^2 = 1.04$, $p = .79$), and income (others) ($\chi^2 = 1.01$, $p = .32$). The two groups did differ in terms of age ($\chi^2 = 8.43$, $p = .04$), gender ($\chi^2 = 4.44$, $p = .04$), and the number of financial dependents ($\chi^2 = 10.64$, $p = .03$). Between the two time points, younger males with less financial dependents dropped out of the study.

Measuring instruments

Negative experiences were measured at Time 2 on the basis of Jahoda's (1982) theory, which consists of 10 items from De Witte et al. (2010). Participants had to rate their negative (e.g., lonely and uncertain) affective experiences on a three-point frequency scale ranging from 1 (never) to 3 (often), which was recoded to 0 (Never) to 2 (Often) for analysis.

Employment commitment was measured at Time 2 by seven items based on the *Employment Commitment Scale* of Warr, Cook, and Wall (1979). Participants had to indicate to what extent they agreed with a range of statements (e.g., "I find it important to have work") on a three-point scale ranging from 1 (agree) to 3 (disagree).

Job search behavior was assessed at Time 2 by asking how many times participants had performed any of the seven different behaviors (e.g., "Searched for advertisements on the Internet (e.g. job or organisational websites) or social media (e.g. Facebook, LinkedIn)"), reflected on a five-point frequency scale ranging from 0 (never) to 4 (10 times or more), in the past three months. The scale of De Witte et al. (2010) was adapted by adding two items to accommodate more recent job search methods (i.e., social media).

The adapted *Search Regulation Questionnaire—Job Searching* was used to measure individuals' motives-to-search at Time 1 and consists of 26 items. Vansteenkiste et al. (2004) constructed the questionnaire as part of their study by asking participants why they were (or were not) searching for jobs. The instrument was adapted in this study through the elimination of items that are not relevant in South Africa (e.g., "because I find it enjoyable to explore the job market and search for jobs for which I am qualified"), and some items were adapted (e.g., "because I am too poorly educated to be accepted by an employer"). The amotivation items were developed guided by research on discouraged job seekers in which the barriers that unemployed people experience discourage them from seeking. Herein, it is argued that unemployed people are mostly discouraged by poverty, high unemployment rates, own duration of unemployment, the cost of job search, and lack of education, to name a few (Kingdon & Knight, 2006). Respondents were asked to rate to which degree they agree with statements reflecting amotivation (13 items, e.g., "I do not look for a job because it is too expensive to search"), external (five items, e.g., "I look for a job because I feel pressure from others to do so"), introjected (five items, e.g., "I look for a job because I feel ashamed of being unemployed"), and identified regulation (three items, e.g., "I look for a job because work is personally important to me") on a three-point Likert-type scale ranging from 1 (disagree) to 3 (agree).

Basic psychological need satisfaction and need frustration were measured at Time 1 with a shortened version of the *Basic Psychological Need Satisfaction and Need Frustration Scale* (Chen et al., 2015). Items were excluded from the original scale based on their lower factor loadings as obtained in the study by Chen et al. (2015). The final version contained 19 items, 6 items for each of the needs, except relatedness, which is measured with seven items. Respondents were asked to rate to which degree they agree with statements reflecting autonomy satisfaction (e.g., "I feel that my decisions reflect what I really want"), autonomy frustration (e.g., "Most of the things I do feel like I have to"), competence satisfaction (e.g., "I feel capable at what I do"), competence frustration (e.g., "I feel insecure about my abilities"), relatedness satisfaction (e.g., "I feel that the people I care about also care about me"), and relatedness frustration (e.g., "I have the impression that people I spend time with dislike me") on a three-point Likert-type scale ranging from 1 (disagree) to 3 (agree).

The following sociodemographic characteristics, deemed important to describe an unemployment sample, were measured: age, dependants, education, employment history, gender, living situation, marital status, unemployment duration, social assistance (self or others), or another form of income earned by others in the household.

Statistical analysis

We used Mplus 8.2 (Muthén & Muthén, 1998–2018) to evaluate the factorial validity of the measures using the measurement model and to test the hypotheses using the structural model estimated with the mean- and variance-adjusted weighted least squares (WLSMV) estimator for categorical variables. Guided by the recommendations of Anderson and Gerbing, 1988 (as cited in Kline, 2016), a two-step modeling approach was followed: the full structural regression model was first specified as a CFA measurement model to find an adequate measurement model which could then be used as a basis for the structural regression model. The following indices are used to assess the model fit based on recommendations by Kline (2016): chi-square (χ^2), degrees of freedom (*df*), root mean square error of approximation (RMSEA), the weighted root mean square residual, and incremental fit indices, including the comparative fit index (CFI), and the Tucker–Lewis index (TLI). CFI and TLI values higher than .95 are considered acceptable (Hu & Bentler, 1999) but should be treated as guidelines in applied research (West, Taylor, & Wu, 2012). Wang and Wang (2012) consider .90 as appropriate cut-off values for these two fit indices. Furthermore, RMSEA values lower than .08 and SRMR values closer to .10 indicate acceptable fit between the model and the data (Wang & Wang, 2012). The reliabilities of the scales were calculated using the ordinal version of the omega reliability coefficient (ω). This coefficient is a more accurate estimation of reliability than Cronbach's alpha for variables on an ordinal level (especially when scale response options are fewer than five) (Gadermann, Guhn, & Zumbo, 2012; Zumbo, Gaderman, & Zeisser, 2007). Coefficients of above .70 are deemed acceptable (Wang & Wang, 2012).

Results

Table 1 presents the mean, SD, internal consistencies, and correlations between all variables in this study.

Measurement model testing

Three competing measurement models were tested. In Model 1, identified regulation (3 items), external regulation (5 items), introjected regulation (5 items), and amotivation (13 items) were four separate but correlated factors. Psychological need satisfaction (9 items) and need frustration (10 items) were

Table 1. Mean, range, internal consistencies and correlations.

	Mean	SD	1	2	3	4	5	6	7	8
1. Amotivation	−.00 (1.60)	.66 (.56)	(.96)							
2. Controlled	−.00 (2.32)	.41 (.52)	.34***	(.93)						
3. Identified	−.10 (2.90)	.65 (.31)	.00	.62***	(.95)					
4. Need satisfaction	−.05 (2.53)	.40 (.42)	.01	.15*	.23*	(.95)				
5. Need frustration	.01 (2.05)	.61 (.51)	.44***	.69***	.30***	.07	(.91)			
6. Negative experiences	−.00 (1.27)	.34 (.45)	.09	.20**	.17	−.14	.17*	(.90)		
7. Commitment	−.04 (2.76)	.49 (.30)	.18*	.32***	.29*	−.02	.23***	.60***	(.88)	
8. Job search	−.01 (2.00)	.53 (.88)	.06	.15	.15	.09	.13	.33***	.23**	(.83)

Note: Mean and SD estimated from factor scores and scaled scores (indicated in brackets).
*$p \leq .05$; ** $p \leq .01$; ***$p \leq .001$.

two separate factors in line with recent research by Bidee, Vantilborgh, Pepermans, Griep, and Hofmans (2016). Negative experiences (10 items), employment commitment (7 items), and job search behavior (7 items) were modeled as separate constructs. In Model 2, external and introjected were combined into controlled motivation, as the perceived locus of control for both types of motivation is external (Vansteenkiste & Sheldon, 2006). Based on the fit statistics, the models yielded similar fit to the data. Model 3 was like Model 2, except that psychological needs were modeled as one factor (with all items loading onto the same factor). Model 3 fitted the data the worst. For reasons of parsimony, Model 2 was preferred to Model 1 and is supported by recommendations from previous studies (see Gagné et al., 2015).

Model development was performed by deleting two items from the amotivation scale ("I do not look for a job because I have been unemployed for too long" and "I do not look for a job because I am waiting for a good job which will allow me to provide adequately for my family in the long term") and one item from the job search scale ("Searched for advertisements on the Internet or social media") because of repeated cross-loadings on other factors. One item from the negative experiences scale ("I must save on my personal expenditure") and one item from the employment commitment scale ("People do not have to work as such to be constructively occupied") were also deleted because of insignificant loadings on their respective scales. Modification indices indicated the residuals of Autonomy Satisfaction 2 ("I feel that my decisions reflect what I really want") and 3 ("I feel my choices express who I really am") (MI = 53.70) and the residuals of Competence Frustration 1 ("I have serious doubts about whether I can do things well") and 2 ("I feel insecure about my abilities") (MI = 118.21) should be correlated, due to similar stems. The revised model (Model 2a) had a good fit reflected in most fit statistics (see Table 2). The standardized factor loadings for the final model are displayed in Table 3.

Table 2. Measurement models (N = 244).

Model	χ^2	*df*	*p*	RMSEA	CFI	TLI	SRMR
Model 1	3126.996	2241	.000	.04 (.04, .04)	.86	.86	.12
Model 2	3145.827	2249	.000	.04 (.04, .04)	.86	.86	.12
Model 2a	2516.421	1922	.000	.04 (.03, .04)	.90	.90	.11
Model 3	3679.118	2258	.000	.05 (.05, .05)	.78	.77	.13

RMSEA: root mean square error of approximation; WRMR: the weighted root mean square residual; CFI: comparative fit index; TLI: Tucker–Lewis index.

Structural model testing

The structural model was based on the measurement model and had good fit reflected in most fit statistics: $\chi^2 = 2512.29$, $df = 1923$, $p < .001$; RMSEA = .04 [.03, .04]; CFI = .91; TLI = .90; SRMR = .11. The results of the hypotheses are presented in Figure 1. The results showed that both amotivation and controlled motivation are significantly related to psychological need frustration. Hypotheses 3a and 3b are accepted. They also showed that need satisfaction is negatively related to negative experiences. Hypothesis 4a is partially accepted. More recent statistical developments in mediation analysis no longer require the direct path between *X* and *Y* (*c'*) to be significant to proceed with tests for indirect effect. Indirect effect, however, equals the product of two paths: *a* (*X* to *M*) and *b* (*M* to Y) (Hayes, Preacher, & Myers, 2011). In this study, there were no significant consecutive relationships from job search motivation to need satisfaction or frustration and from need satisfaction or frustration to the outcome variables. Hence, *a*, *b*, and *c'* in the required sequences were nonsignificant, and this excludes the possibility for indirect effects to emerge. Consequently, Hypotheses 5a to 5f are rejected.

Discussion

This article aimed to examine if motivation relates to the experiences, attitudes, and behavior of the unemployed over time through basic need satisfaction and frustration. Our results showed that job search motivation has no relationship with the affective experiences, attitudes toward employment, and job search behavior over time. They also showed that only controlled motivation and amotivation were significantly related to need frustration. Finally, only psychological need satisfaction, and not the frustration of their needs, was significantly related to affective experiences over time. These findings extend the SDT unemployment literature by investigating motivational outcomes in unemployment over a longer period (da Motta Veiga & Gabriel, 2016; Koen et al., 2015, 2016; Vansteenkiste et al., 2004, 2005). It also extends both unemployment (Koen et al., 2016) and SDT literature by including both psychological need

Table 3. Standardized loadings of the revised measurement model (N = 244).

	Estimate	SE	EST/SE		Estimate	SE	EST/SE
Amotivation				Need frustration			
Amot1	.78*	.04	20.40	AutF1	.68*	.06	11.97
Amot2	.94*	.02	53.54	AutF2	.72*	.05	14.32
Amot3	.94*	.02	52.44	AutF3	.75*	.04	16.77
Amot4	.91*	.03	34.06	RelF1	.61*	.06	10.51
Amot5	.84*	.04	23.09	RelF2	.81*	.04	20.84
Amot6	.65*	.06	11.40	RelF3	.83*	.04	22.20
Amot8	.49*	.08	6.37	RelF4	.70*	.05	14.28
Amot9	.84*	.04	23.57	CompF1	.16*	.08	2.05
Amot10	.71*	.05	14.34	CompF2	.27*	.08	3.50
Amot11	.79*	.04	21.52	CompF3	.51*	.07	7.57
Amot12	.66*	.05	12.79				
Controlled				Negative experiences			
Ext1	.46*	.07	6.33	NExp1	.38*	.08	5.06
Ext2	.79*	.04	20.53	NExp2	.69*	.05	12.80
Ext3	.38*	.07	5.45	NExp3	.59*	.06	9.52
Ext4	.79*	.04	19.25	NExp4	.57*	.06	9.86
Ext5	.43*	.09	4.43	NExp5	.71*	.05	14.95
Intro1	.72*	.05	14.61	NExp6	.77*	.04	19.07
Intro2	.83*	.03	24.66	NExp7	.72*	.05	15.45
Intro3	.77*	.04	18.48	NExp8	.79*	.04	19.67
Intro4	.88*	.03	31.95	NExp9	.53*	.07	7.82
Intro5	.85*	.04	24.61				
Identified				Employment commitment			
Iden1	.88*	.05	18.37	Com1	.62*	.13	4.88
Iden2	.97*	.06	15.61	Com2	.58*	.13	4.81
Iden3	.81*	.10	8.39	Com4	.60*	.09	6.59
				Com5	.93*	.11	8.16
				Com6	.73*	.07	10.72
				Com7	.46*	.10	4.68
Need satisfaction				Job search behavior			
AutS1	.49*	.07	7.01	Sear1	.64*	.06	11.46
AutS2	.40*	.08	5.28	Sear2	.69*	.06	12.10
AutS3	.47*	.07	6.74	Sear3	.68*	.06	11.51
RelS1	.56*	.06	8.68	Sear5	.62*	.06	10.47
RelS2	.84*	.04	20.41	Sear6	.59*	.08	7.74
RelS3	.83*	.04	21.71	Sear7	.38*	.10	3.94
CompS1	.89*	.03	28.13				
CompS2	.93*	.03	30.14				
CompS3	.73*	.06	12.94				

*$p = .000$. EST: Estimate; SE: Standard Error.

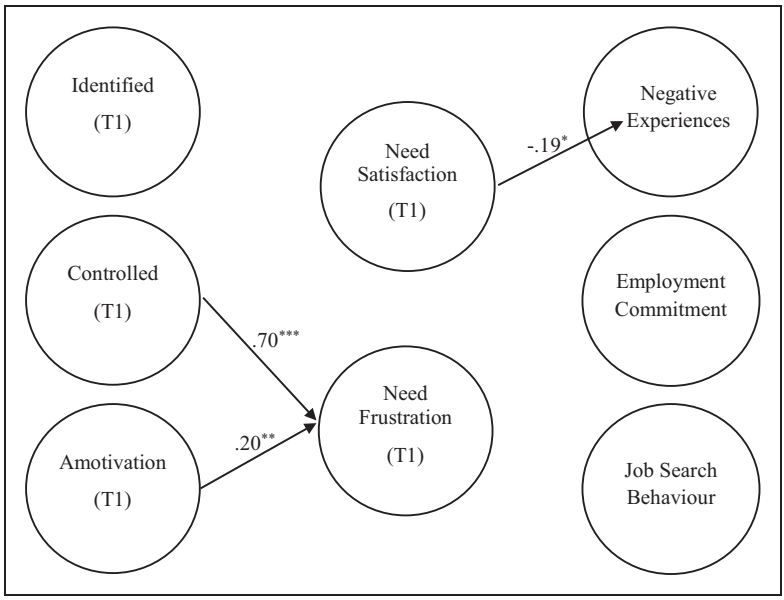

Figure 1. Path coefficient for the hypothesized model. Note that nonsignificant hypothesized paths are included in the analysis but not displayed for clarification purposes. $^{*}p < 0.05$; $^{**}p \leq 0.01$; $^{***}p < 0.001$ (two tailed).

satisfaction and frustration and by specifying them as a pathway from the different types of motivation to affective, attitudinal, and behavioral outcomes.

Theoretical implications

Our work provides insight into the relations between job search motivation and experiences, attitudes, and search behavior over time. More specifically, it shows that unemployed individuals' negative experiences, their attitudes to employment, and the intensity with which they search for jobs at a certain point in time are not dependent on their reasons for searching for jobs six months earlier. Our findings are thus not in line with theoretical expectations that amotivation and controlled motivation will have a negative impact on affective experiences and their responsiveness. It also contradicts theoretical expectations regarding the positive outcomes of identified regulation. Our results were, however, in line with previous research which also found no significant relationship with autonomous motivation (Vansteenkiste et al., 2004, 2005), contrary to SDT expectations. The insignificant association between amotivation and employment commitment is also in line with previous cross-sectional results (Vansteenkiste et al., 2004). Similar to previous cross-sectional and longitudinal research,

neither amotivation nor controlled motivation (Koen et al., 2016; Vansteenkiste et al., 2004, 2005) was significantly related to job search intensity.

In general, the absence of significant relations between motivation and the affective experiences, their commitment to employment, or the intensity with which they search for jobs could be attributable to both methodological and theoretical reasons. From a methodological perspective, factors such as time and the use of motivational variables in isolation are worth mentioning. Notably, more autonomous (i.e., intrinsic and identified regulation), as opposed to more controlled (extrinsic and introjected regulation), forms of motivation are associated with more well-being and persistence over time (Deci et al., 2017; Ryan & Deci, 2017) and by implication also positive attitudes. Therefore, the association with controlled motivation (and also amotivation) may decline over time and can become insignificant—especially if faced with constant challenges. The time lags of previous longitudinal studies were also considerably shorter (maximum six weeks) than in this study and identified regulation could perhaps also wane over time in the unemployment domain.

The motivational variables were also viewed in isolation (i.e., a variable-centered approach). Researchers advocate for person-centered approaches in which the motivational variables are combined (theoretically and analytically) to evaluate the dynamics of these variables which may be more effective in predicting affective, attitudinal, and behavioral outcomes (Howard, Gagné, Morin, & Van den Broeck, 2016; Vansteenkiste & Mouratidis, 2016).

From a theoretical point of view, it is also plausible that in a highly discouraging and challenging environment, other factors may be at play in determining the affective experiences, commitment, and search behavior. Several factors beyond motives determine the functioning of the unemployed (see Kanfer et al., 2001; McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Paul & Moser, 2009; Wanberg, 2012 for overviews). Importantly, the challenges experienced in South Africa, such as financial hardship and a high unemployment rate, may require more than only motivation to ensure well-being and to sustain responsiveness over time. High mean levels of commitment ($M = 2.76$; $SD = .30$) and search intensity ($M = 2.00$; .88) illustrate that the participants are indeed committed to employment and searching for jobs, so other drivers (e.g., self-regulation) ought to be present, which could be studied in recommendations for future research.

The lack of relationships of autonomous motivation may also be domain specific. Although autonomous motivation usually has positive consequences even over time, these consequences may be unobservable in the unemployment domain where people cannot obtain what they want: employment (Vansteenkiste et al., 2004). In South Africa, the unemployed will be even less likely to obtain employment, which means that the chances are even slimmer for obtaining valued outcomes. Within such a context, identified regulation may, therefore, be unable to foster positive outcomes or sustain job search behavior

over time. To some extent, this provides evidence for theorization that the context in which motivation occurs determines how motivation will influence outcomes (Ryan & Deci, 2017; Vallerand, Pelletier, & Koestner, 2008).

Contrary to our expectations, none of the job search motivations was related to psychological need satisfaction. Psychological need satisfaction is thus not supported or undermined by their reasons for searching for a job. The perceived locus of identified regulation is internal (Ryan & Deci, 2017), and although it does not have positive consequences in this sample, it is not detrimental enough to be associated with a truly negative outcome such as need frustration. Our results showed that both amotivation and controlled motivation are detrimental in unemployment when considering the impact on psychological need frustration. This is in line with our theoretical expectations. However, the lack of a relationship between identified regulation and need satisfaction in this study was striking. Following our discussion of the role of more autonomous types of motivation, it seems that identified regulation is indeed not capable of producing positive consequences in an unemployment context: it did not relate positively to need satisfaction or any of the outcomes.

Interestingly, the study shows that experienced need satisfaction has a lasting relationship with affective experiences. This is in line with our expectations and previous research that experienced need satisfaction is positively related to well-being (Van den Broeck et al., 2016). Experienced need satisfaction is, however, not related to employment commitment and job search behavior. So, experienced need satisfaction serves as an important protective factor against the psychological burden of unemployment but is surprisingly not able to foster responsiveness over time. This contradicts previous research which reported positive associations with favorable attitudes and behaviors (Van den Broeck et al., 2016). This could be because the satisfaction of psychological needs and experiences have stronger theoretical links (both are experiential) and are thus more likely to be related to each other. However, if this was indeed so, similar (but opposite) relations would be observed with need frustration. It is thus plausible that experienced need satisfaction influences negative experiences, while other factors foster responsiveness.

Experienced psychological need frustration is not related to any of the outcomes. So, in this sample, the experienced need frustration is unrelated to a negative experience of unemployment and does not foster responsiveness. In general, SDT expects that frustration of the needs will have negative consequences, even more than low need satisfaction (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011; Vansteenkiste & Ryan, 2013). In line with our earlier observations, responsiveness may indeed be better explained by other factors. The impact on well-being, however, may be more complicated. The absence of an economic safety net (and hence financial difficulties) and long unemployment duration makes them susceptible to chronic need frustration. Above average mean levels

also indicate that they experience need frustration ($M = 2.05$; $SD = .51$). The detrimental outcome (i.e., negative experiences) is then presumably buffered by other factors not measured by this study. These factors can include coping resources or adaptive coping strategies (McKee-Ryan et al., 2005) or maladaptive coping mechanisms such as need substitutes and compensatory behaviors which provide fleeting satisfaction (Vansteenkiste & Ryan, 2013).

The findings of our study again provide some support for the divergent validity of psychological need frustration because it related differently to affective experiences (i.e., being unrelated with) than experienced need satisfaction (i.e., being negatively related).

Practical implications

Our findings have some clear implications for practitioners. First, given that both amotivation and controlled motivation lead to frustration of the psychological needs of the unemployed, interventions should focus on reducing both. Following SDT, amotivation may be lowered when the unemployed would feel fewer barriers in finding employment or would have the means to overcome these barriers, while controlled motivation can be lowered when they would feel less pressure from others to engage in job search behavior. However, in the absence of positive outcomes of identified regulation, we suggest that job creation should remain high on the economic and political agenda for the unemployed to obtain valued employment. Alternatively, the unemployed could perhaps derive benefits from autonomously nonengaging in job search if they invest time and effort into other important activities (i.e., volunteering) (Vansteenkiste et al., 2004; Vansteenkiste & Van den Broeck, 2018).

Second, given that psychological need satisfaction can lower the negative experiences of the unemployed, interventions should focus on enhancing the satisfaction of the psychological needs. Many suggestions along this line were made (see Rocchi, Pelletier, & Desmarais, 2017; Vansteenkiste & Van den Broeck, 2018). For example, autonomy satisfaction may be enhanced by providing the unemployed with a choice in matters that affect them, by providing reasons for performing particular activities, and by acknowledging their opinions. Acknowledging the unemployed person's achievements, believing in them, and giving positive feedback would enhance perceived competence. Showing care, warmth, and genuine interest, as well as conveying unconditional positive regard for the unemployed, would enhance perceived relatedness.

Limitations and future directions

The study makes several contributions to literature and practice but is not without limitations. First, the design does not allow for establishing causality, even though we temporally separated motivation and psychological needs from the

outcome variables. We based our model in theory suggesting that motivation may relate to individuals functioning through motivation. However, as we measured motivation and the basic needs concurrently, basic psychological needs could be specified as an antecedent of job search motivation and motivation could then be modeled as a pathway to well-being, attitudes, and behavior. It is recommended that future research disentangle the causal order of need satisfaction and the different types of motivation using proper longitudinal designs (see Spector, 2019 for recommendations on time lags and temporal precedence) measuring all variables at more than two points in time (see Hamaker, Kuipers, & Grasman, 2015 for recommendations on cross-lagged panel models). This study aimed to determine whether experiences, attitudes, and behavior are associated with earlier job search motivation and psychological needs. The design is appropriate, given the research aim. A recommendation for future research is to adopt a design that allows for capturing the developmental and dynamic nature of the variables under investigation to refine our understanding of motivational dynamics. At a between-person level, da Motta Veiga and Gabriel (2016) illustrated that autonomous motivation stabilized after a while and that controlled motivation was stable from the onset of the study. Recent studies also showed that psychological need satisfaction (and frustration) is not static (Bidee et al., 2016; Cowan & Taylor, 2015) but perhaps more at a within-person level than a between-person level. A multilevel longitudinal design and analytical strategy with several data points will provide more clarity of the stability and variation of variables at various levels and the implications for psychological functioning.

Second, the time lag between waves was chosen for pragmatic (i.e., retention of participants) and theoretical purposes (to allow for the predictor variables to develop consequences). However, the longer time lag may have influenced the ability to detect significant relationships. Future studies should carefully consider the spacing of data collection, especially with dynamic variables. Third, we collected our data in a difficult economic period. Also, the participants were relatively poorly educated, were long-term unemployed, and had more unemployment than employment spells. Their chances of finding a job are significantly reduced when unemployment rates are high and are exacerbated by low "objective employability," with implications for both motivation and job search, but also perhaps for the relation between them. Controlling for the impact of these variables is recommended for future research.

Fourth, we aggregated the scores for need satisfaction and need frustration. Although in line with recent research (see Bidee et al., 2016), researchers should consider specifying the different needs separately as recommended by Van den Broeck et al. (2016). Finally, the use of self-report surveys may have been problematic, especially given that both employment commitment and job search are susceptible to social desirability (Raphael, 2014; van Hooft, 2014).

Despite the rejection of many of our hypotheses, optimal motivational regulation and the presence of need satisfaction (and the absence of need frustration) proved to be valuable across many domains. They are valuable themselves, but also because they can influence well-being, persistence, and performance (Ryan & Deci, 2017). Relieving the psychological burden of unemployment while encouraging responsiveness remains important for all assisting the unemployed. Investigation of the hypothesized model in other samples is encouraged to confirm (or disconfirm) our results, especially in other developing countries. This is also important in the light of significant correlations that were reported, for example, between the different types of job search motivation and commitment that became insignificant in the path model. The relatively high correlations between, for example, identified regulation and controlled motivation as well as between job search motivation and need frustration could also have influenced relationships with other variables in this study. Other studies may find lower correlations and hence different outcomes for job search motivation and psychological needs.

Beyond SDT, unemployment researchers are also encouraged to include other contextual and situational variables which may be deemed important for well-being, attitudes, and performance. Along this line, other authors argue that self-regulation may play an important role (perhaps even more important than motivation), especially in sustaining responsiveness (e.g., Baay, de Ridder, Eccles, van der Lippe, & van Aken, 2014; van Hooft, 2014). Work values and job flexibility (Van den Broeck et al., 2010) and quality of job search may also be worth investigating (Koen et al., 2016; van Hooft, 2014). Finally, the psychological vulnerabilities associated with need frustration may be best captured by variables, such as anxiety or depression, which better illustrate the severity of need frustration than negative experiences. Investigating these variables may be a fruitful avenue to understand the detrimental impact of need frustration, and inclusion of adaptive and maladaptive coping strategies can provide insight into the accommodations adopted.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The authors gratefully acknowledge the support of the Flemish Interuniversity Council—University Development Cooperation (VLIR-UOS) for awarding funding that enabled the research and authorship of this article.

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Note

1. Note that we exclude intrinsic regulation. Theoretically, we argue that the unemployed may, at most, see the job search task as instrumental in achieving valued outcomes—that is, finding employment—but will not regard the search activity itself as fun or interesting. The social context, which is a significant antecedent of motivational regulation (Deci & Ryan, 2012), does not allow for people to only enjoy looking for a job. Similarly, Vansteenkiste and Sheldon (2006) argued that individuals' motives for behavioural change in therapeutic settings may be instrumental in coping or alleviating problems (identified regulation), so the person may not resist the behavior but will not experience it as fun or enjoyable (intrinsic regulation). Discussions with unemployed individuals in SA prior to this research confirmed this assumption.

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