

THE JOB SEARCH GRIND: PERCEIVED PROGRESS, SELF-REACTIONS, AND SELF-REGULATION OF SEARCH EFFORT

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Guided by theory and research on self-regulation and goal pursuit, we offer a framework for studying the dynamics of unemployed individuals' job search. A daily survey over three weeks demonstrated vacillation in job seeker affect and, to a lesser extent, "reemployment efficacy." Daily perceived job search progress was related to this vacillation. Lower perceived progress on any given day was related to more effort the following day. The study provides insights into the daily dynamics of job search and elucidates the roles of search progress, affect, and three key moderators—financial hardship, employment commitment, and "action-state orientation"—in explaining these dynamics.

But there is one small problem: the call
 Never comes.
And we are left to wait
 And wait
 And wait
While the world goes out of its way,
 It seems,
 To tell us how little
 It cares
Whether we find work,
 Or not.

—Richard Nelson Bolles

The end of 2008 marked the start of a global recession that has included a dramatic climb in unemployment rates and layoffs involving millions of individuals (Coy, 2008; U.S. Department of Labor, 2008). Because even in good economic times unemployment is an issue of concern, a substantial body of literature on unemployment has developed, focused on topics such as the impact of unemployment, interventions to speed reemployment, and the identification of variables associated with job search intensity, reemployment speed, quality, and employability (see, for example, Fu-

gate, Kinicki, and Ashforth [2004]; Saks [2005]; Vinokur, Schul, Vuori, and Price [2000]). Far less work has been devoted to understanding the job search process and what happens within job searches from day to day or week to week. An understanding of this process is extremely important from both practical and theoretical perspectives; knowing what happens within job search will aid in the development of integrative models of the unemployment experience and may have implications for improving job seeker well-being and reemployment speed (Barber, Daly, Giannantonio, & Phillips, 1994; Saks & Ashforth, 2000; Wanberg, Glomb, Song, & Sorenson, 2005).

Drawing upon research and writings from self-regulation theory (especially social cognitive theory, control theory, and the goal progress literature), we propose and report tests of a conceptual model developed to examine individuals' day-to-day experience of job search effort over a three-week period. Self-regulation theory addresses individual regulation of emotions and task effort as well as individual reactions to goal pursuit and perceptions of success versus failure (Vohs & Baumeister, 2004). Job search is a highly autonomous process and is characterized by the need to self-motivate, cope with rejections and uncertainty, and continue one's efforts, making it well-suited for examination from a self-regulatory perspective (Kanfer, Wanberg, & Kantrowitz, 2001). Focusing

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on constructs central to self-regulation theory, this study examines (1) how daily perceived progress in a job search relates to experienced affect and reemployment efficacy (confidence in one’s ability to find an acceptable job) (2) whether perceived progress, experienced affect, and reemployment efficacy relate to time spent in the job search in the next day, and (3) the moderating roles of goal valence (how important reemployment is to an individual) and self-regulatory ability.

Our study contributes to the literature in three primary ways. First, our proposed model represents a *theoretical* contribution, translating self-regulation theories and constructs (e.g., perceived job search progress and self-reactions such as affect and reemployment efficacy) to the study of the dynamics of job search. Importantly, our proposed framework allows for several extensions and modifications, as we describe later, in the Discussion section. Because the dynamics of job search is a virtually untapped area of examination, it is important to translate and develop theoretical frameworks that are suitable for capturing what happens in job search over both long (e.g., week to week and month to month) and short periods (e.g., day to day). Second, our quantitative examination of this model yields new and previously unstudied *empirical* information about the process of job search and what happens in it day to day. We observe previously undocumented day-to-day within-person vacillation of perceptions of progress and self-reactions during job search and provide insights into the mechanisms involved in this vacillation as well as its relation to next-day search effort. Finally, our results are informative to the literature on goal pur-

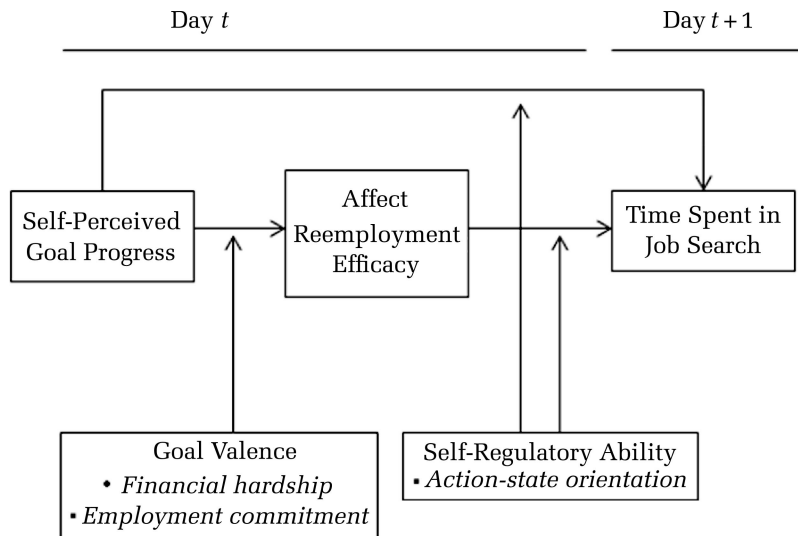
suit, which has tended to use laboratory designs and student samples. Our adult sample, field context, and examination of moderators provide a valuable addition to this literature.

Figure 1 shows our conceptual model of the dynamics of job search. In the following sections, we describe the components of this model. We begin by describing the anticipated link between daily perceived progress in job search and experienced job seeker affect and reemployment efficacy.

Job Search Progress, Affect, and Reemployment Efficacy

In the self-regulation literature, perceived goal progress has typically been evaluated via comparisons of individuals’ current performance with desired performance (what has been accomplished in comparison to what the person wants to accomplish [Carver, 2004]). Because our study includes only individuals who have specified a desire to find a job, goal progress in our study was evaluated at a general “doing” or “program” level (Carver & Scheier, 1998), in terms of daily overall perceived progress in a job search. Many micro tasks to be completed daily comprise job search: revising a resume, searching for and inquiring about job opportunities, visiting employment centers, and applying for open positions (Blau, 1993). An individual can assess overall daily search progress entirely separately from higher-order goal achievement (e.g., being offered a job), perceiving it as poor (e.g., a lot of time was spent aimlessly wandering through online position listings, a networking contact was rude, or time simply was not managed

FIGURE 1
Conceptual Model



well) or very good (e.g., several tasks related to the job search were successfully completed, a promising job opening was identified, someone agreed to an information interview). Whether individuals view their daily job search progress as poor or good depends on their personal standards and what they wanted to accomplish (Bandura, 1991). To date, the construct and role of daily job search progress has not been studied in the job search literature. Given that goal progress constructs are important in self-regulation and that the job search process is self-regulatory in nature, we propose that the construct of daily job search progress is an important addition to further understanding of the job search process, affect during unemployment, and motivation to continue searching.

Self-regulation theory suggests that levels of perceived goal progress have an impact on experienced affect and self-efficacy for goal attainment (Bandura, 1991; Bandura & Locke, 2003; Carver & Scheier, 1990; Ilgen & Davis, 2000; Wood & Bandura, 1989). Specific to affect, this work suggests that when individuals perceive goal progress, they are more likely to report positive affect (e.g., feelings of excitement, pride, and enthusiasm). In contrast, when individuals perceive a lack of goal progress, or when they receive negative feedback, they are more likely to report negative affect (e.g., feelings of irritability, frustration, and nervousness). For example, in a study of 88 students asked to generate a list of six personal goals, individuals who reported greater goal progress over the 14-week duration of the study reported higher levels of elated mood, lower levels of depressed mood, and higher satisfaction with life (subjective well-being) (Brunstein, 1993). Analyses suggested that higher goal progress helped to improve subjective well-being over time rather than vice versa (improved subjective well-being did not improve goal progress). Ilies and Judge (2005) also found that when individuals were provided with feedback indicating they were not achieving their goals, they were more likely to report negative affect. In addition to the work on self-regulation, research efforts on cognitive appraisal (e.g., Lazarus, 1991) and subjective well-being (e.g., Diener, Suh, Lucas, & Smith, 1999) have also generally noted that goal progress relates to increased positive affect and decreased negative affect. In relation to self-efficacy for goal attainment, social cognitive theory suggests that when individuals perceive lower goal progress, they are more likely to judge themselves as lower in their abilities to meet their goals (Bandura, 1986). In the context of job search, this view suggests that individuals perceiving less progress in their job searches may experience lowered reem-

ployment efficacy (less confidence in their ability to find an acceptable job). In his famous book, *What Color is Your Parachute*, Bolles (2007) depicted job search as a process that requires a high level of motivation and persistence, a process in which discouragement and disappointment can quickly surface. Empirically, understanding of fluctuations or consistency of affect and efficacy during job search, as well as the relationship between perceived progress in job search and daily affect and efficacy, is nonexistent. We hypothesize the following dynamic relationship:

Hypothesis 1. Perceived progress in a job search on each day t is related to higher levels of positive affect and lower levels of negative affect on the same day t .

Hypothesis 2. Perceived progress in a job search on each day t is related to higher levels of reemployment efficacy on the same day t .

Although main effects can be proposed, social cognitive theory suggests that the outcomes of perceived goal progress may depend on many factors, such as interpretive biases, how hard individuals tried, their physical state at the time, causal attributions for success or failure, and how important or central the goal is to the individuals (Bandura, 1986, 1991, 1999). Bandura gave particular emphasis to "valuation of activities" as important, noting "people do not care much how they do in activities that have little or no significance to them." (1991: 255). Individuals who are all looking for work can nevertheless vary in terms of how important or urgent the reemployment goal is to them, for both extrinsic and intrinsic reasons. Consider, for example, two individuals who are looking for jobs. Both indicate they made little progress in their job searches on the current day. They differ, however, in their levels of financial hardship. One individual has extreme financial hardship; the other individual's financial situation is good. In the former individual's case, reemployment is a necessity rather than a relaxed pursuit, and the lack of progress is more likely to elicit negative affect and lowered efficacy. Financial hardship can be viewed as a more extrinsic indicator of goal valence (i.e., employment is viewed as a means toward the end of solving financial hardship). Another, more intrinsic indicator of goal valence in the job search context is "employment commitment." Employment commitment refers to how intrinsically important work is to an individual, and it is usually conceptualized as an attitudinal construct related to the importance, value, or centrality placed on paid work beyond the monetary income it provides (e.g.,

Rowley & Feather, 1987; Vinokur & Caplan, 1987). Thus, whereas for some individuals work is part of their central identity and having a job means more to them than just the money it provides, for others work is not as intrinsically important.

Research has suggested that goal valence moderates how individuals react to goal obstacles, in that individuals whose goals are higher in valence are more likely to have stronger self-reactions (Bandura, 1991). In view of this research, we propose that perceived progress has a stronger relationship with affect for individuals with higher financial hardship and employment commitment. For example, we expect there to be a stronger negative (positive) relationship between perceived progress and negative (positive) affect for individuals with high, in comparison to low, financial hardship and employment commitment. A somewhat more speculative expectation is that individuals with higher financial hardship and employment commitment may experience bigger blows to their reemployment confidence following lack of progress, because of the salience of the goal. We propose:

Hypothesis 3. Individual differences in financial hardship and employment commitment moderate the relationship between perceived progress reported on each day t and affect reported on the same day t . Specifically, there will be a stronger negative (positive) relationship between perceived progress and negative (positive) affect for individuals with high, in comparison to low, financial hardship and employment commitment.

Hypothesis 4. Individual differences in financial hardship and employment commitment moderate the relationship between perceived progress reported on each day t and reemployment efficacy reported on the same day t . Specifically, there will be a stronger positive relationship between perceived progress and reemployment efficacy for individuals with high, in comparison to low, financial hardship and employment commitment.

Job Search Effort

Although additional dimensions of job search are worthy of future research attention (for example, job search quality, specific search methods used [Saks, 2005]), the focal outcome of this study is job search effort, or time spent in job search. Search effort is highly relevant to the self-regulatory framework. Without the obligation of a paid job and without clear guidance on what should be done each day, individuals have considerable discretion

to put more or less time into their job searches. Furthermore, there is evidence that search effort is salient to the reemployment process. Meta-analytic data have portrayed search intensity as related to faster reemployment (Kanfer et al., 2001), and Barron and Mellow (1981) demonstrated that a ten-hour-per-week increase in search intensity was associated with a 20 percent increase in employment probability for the average unemployed individual.

The research literature offers multiple perspectives on how perceived progress and goal-related emotion and efficacy may impact goal-related effort. Social cognitive theory, along with Heilizer's (1977) goal-gradient perspective, suggests that *higher* perceived progress, positive affect, and efficacy *stimulate* behavior and that *low* progress, negative affect, and low efficacy *reduce* behavior. Perceived progress directly increases the strength of both actual and intended movement toward a goal simply because goal achievement is perceived to be near, within the realm of completion. However, this perspective also suggests perceived progress may work indirectly via the channels of affect and self-efficacy. Positive self-reactions, including both positive affect and self-efficacy, are thought to produce a self-enhancing bias, optimism, and a motivational state that energizes behavior (Bandura, 1986, 1991, 1999; Seo, Barrett, & Bartunek, 2004). When efficacy is high or mood is positive, individuals are less likely to give up and more likely to redouble their efforts. Negative self-reactions, including both negative affect and low self-efficacy, can be demotivating and can interfere with continuity of action. When efficacy is low, for example, individuals visualize failure and avoid difficult tasks. Hall and Foster (1977) found that good performance in a business simulation led to increased reported psychological involvement in the simulation. Ilies and Judge (2005) found that participants in a laboratory task adjusted goals downward following negative feedback and upward following positive feedback. Cote, Saks, and Zikic (2006), using a between-individuals design, found that college student job seekers with higher trait-based positive affect and job search self-efficacy reported higher job search intensity.

In contrast, the control theory perspective (Carver, 2003, 2006) suggests that *low perceived progress* highlights a discrepancy between desired and actual progress and that this discrepancy results in *increased* effort. *High perceived progress* also results in a discrepancy that suggests that progress is on target or ahead of target; this discrepancy results in *decreased* effort.

The control theory perspective also suggests that

perceived progress may have an indirect effect on behavior via the channels of affect and self-efficacy. For example, low perceived progress produces a discrepancy that is likely to result in the experience of negative emotions. Negative emotions narrow attention and highlight the specific threat or issue that needs to be resolved, and individuals tend to increase effort expended toward goal accomplishment. Positive affect is posited to reduce the urgency of a focal goal and perceived threat that the goal will not be reached, resulting in a focus on other goal priorities. Relevant to self-efficacy, within-individual increases in self-efficacy may foster overconfidence or coasting, resulting in lower performance (Vancouver, Thompson, Tischner, & Putka, 2002). Drawing on these two perspectives, we propose two competing hypotheses:

Hypothesis 5a. Higher perceived progress, positive affect, and reemployment efficacy and lower negative affect on day t are related to higher job search effort the next day.

Hypothesis 5b. Higher perceived progress, positive affect, and reemployment efficacy and lower negative affect on day t are related to lower job search effort the next day.

It is possible that the two opposing predictions can be reconciled in this context through examination of individual differences in self-regulatory ability—abilities that help “enable an individual to guide his/her goal-directed activities over time and across changing circumstances” (Karoly, 1993: 25). Both Bandura and Carver’s work includes caveats that might suggest this to be the case. Bandura (1986), for example, noted that people differ in their abilities to overcome negative self-reactions. Whereas some individuals react to failure by giving up or becoming discouraged, others recover quickly. Carver (2003) noted individuals who are highly focused on their goals are less likely to diminish effort on central goal pursuits.

In this study, we examine action-state orientation as an index of self-regulation (Diefendorff, Hall, Lord, & Streat, 2000; Kuhl, 1994a). This construct describes individual differences in the ability to initiate and maintain intentions, varying between greater activity (action) or greater stability (state). Action-state orientation is composed of three dimensions: disengagement (an individual’s ability to detach from thoughts that may interfere with persistence toward goals), initiative (the capability to initiate action and prioritize tasks), and persistence (the ability to stay focused until a task is

complete).¹ *Action-oriented* individuals tend to have high ability on these dimensions (e.g., high ability to disengage from interfering thoughts) whereas *state-oriented* individuals tend to have low ability on the dimensions (e.g., low ability to disengage from interfering thoughts). Research suggests action-state orientation affects the self-regulation of thoughts, emotions, and behavior. For example, Diefendorff et al. (2000) demonstrated that action-oriented individuals have fewer intrusive thoughts during task performance than state-oriented individuals. Koole and Jostmann (2004) found that action-oriented individuals are also more able to “down regulate” negative affect in stressful conditions than state-oriented individuals. Diefendorff et al. (2000) concluded that action-oriented individuals are better able to continue task effort over time than state-oriented individuals. Van Hooft, Born, Taris, Van der Flier, and Blonk (2005) and Song, Wanberg, Niu, and Xie (2006) demonstrated the relevance of action-state orientation in the job search context. For example, Song et al. demonstrated that individuals who felt it was useful to spend effort in their job search were most likely to translate those positive attitudes about job search into intentions to look for jobs if they were high in action, rather than state, orientation.

We expected Hypothesis 5a, stating that low progress and negative self-reactions are related to less effort, to be supported for state-oriented individuals. Specifically, we expected to see that low progress and negative self-reactions are related to less goal effort on a following day for state-oriented individuals because they are more likely to have intrusive thoughts about their low progress and are less able to temper the negative emotions and self-reactions. In contrast, we expected Hypothesis 5b (i.e., low progress and negative self-reactions are related to more effort) to be supported for action-oriented individuals. Specifically, we suggest that action-oriented individuals with negative self-reactions and low progress spend more time on their search because of their ability to stay task-focused and temper negative emotions (Diefendorff et al., 2000; Koole & Jostmann, 2004).

¹ Diefendorff et al. (2000) have labeled both the action and the state poles of each subscale. For example, Diefendorff et al. refer to the construct we call disengagement as “disengagement versus preoccupation,” and initiative is termed “initiative versus hesitation.” For simplicity purposes, we use the action portion of the construct label, as is consistent with the direction of the scoring of this construct.

Hypothesis 6. Individual differences in action-state orientation moderate the relationship between perceived progress, affect, and reemployment efficacy reported on day t and job search effort on the next day.

METHODS

Participants

Unemployment insurance recipients attending brief required orientations in a workforce center (on topics such as services available at the center) were asked by a research assistant and the second author to participate in the study. The study was explained, and assurances were conveyed that all survey responses would go directly to the university researchers and would not be seen by the workforce center staff. To be eligible for our study, individuals had to indicate their intention to be actively engaged in job search for the next three weeks, and they had to have access to the internet to complete the repeated-measure surveys. Eligible and interested individuals completed a paper-and-pencil baseline survey on site and then were sent a series of 15 online surveys, one every weekday, starting from the day they received the invitation to participate.

Of 605 individuals attending the orientations, 490 were eligible (81.0 percent; 4 indicated they were ineligible because they did not intend to look for a job in the next three weeks; 95 did not have internet access; and 16 failed to turn in the survey or did not indicate their eligibility status). Of the 490 eligible individuals, 263 agreed to be in the study and turned in completed baseline surveys (a participation rate of 53.7 percent).

The 263 enrolled participants were sent an e-mail with a link to an online survey each weekday afternoon, Monday to Friday, for three consecutive weeks. Individuals were asked to complete the survey after they had finished their job search for the day and to submit their responses online between the hours of 4:00 p.m. and midnight of that same day. This framework required individuals to report on their job searches each day when they were done with their work on it, before the beginning of the next day. We considered providing individuals with a diary or another form of response for the daily survey but preferred the online survey option so that we could ensure individuals completed the survey in the daily time period requested (e.g., rather than completing several day's worth of surveys in one sitting).

Response rates to the daily surveys were good, ranging from a low of 68.6 percent ($n = 180$) to a

high of 77.7 percent ($n = 205$), with a total of 235 individuals completing at least one survey in addition to their baseline survey.² Of the 235 individuals, 2 were dropped, 1 for responding to all of the surveys on one day, the other for being unemployed too long (almost six years, while the sample mean was 118 days). Therefore, a total of 233 individuals were included in our final sample. The average number of web surveys these 233 participants completed during the research period was 12 (out of a possible 15). Individuals completing at least 14 of the 15 online surveys received a \$50 gift certificate ($n = 145$; 62.2 percent of the 233 individuals in our final sample). Individuals completing at least 10 but fewer than 14 of the surveys received a \$25 gift certificate ($n = 46$; 19.7 percent of the 233 individuals in our final sample).

Of the 233 participants included in the study, 55.8 percent were men, 87.6 percent were white, and 47.2 percent had a bachelor's or higher degree. The majority of the individuals (61.4%) had professional, technical, or managerial occupations, and 23.2 percent were in clerical or sales occupations. The average age of the individuals was 43 years (s.d. = 11.9), and they had been unemployed for 113.7 days on average (s.d. = 74.2) at the time they completed the baseline survey. The 233 final participants were compared on gender and age to the 257 individuals who were eligible but did not agree to be in the study or who did not complete enough surveys to be in the study. We requested gender and age data from all individuals, even those who declined to be in the study, to allow for this comparison. Participants were more likely to be female ($\chi^2 [1, 482] = 9.08, p < .003$), but they were not significantly different from nonparticipants in age ($t[479] = -1.53, p = .13$).

A total of 32 individuals became reemployed during the duration of the study or had accepted a job offer but had not yet started. These individuals were excluded at the point of their reemployment or job offer acceptance, given their goal achievement status.

Measures

Job search progress, affect, reemployment efficacy, and time spent in the job search were assessed in every daily survey. Financial hardship, employment commitment, action-state orientation,

² We retained 13 individuals (5.6%) in the study who only completed the baseline survey and one daily survey. Deleting these individuals did not make any difference in the results.

and control/demographic variables were assessed in the baseline survey. Each variable was scored as a sum of its items divided by the number of items.

Job search progress. Items for assessing job search progress were based on two goal advancement items used by Brunstein (1993) and Brunstein, Schultheiss, and Grassmann (1998). We wrote additional items, however, and adapted the item content to assess job search progress. Individuals were asked to respond, on scales ranging from 1 (“strongly disagree”) to 5 (“strongly agree”), to six statements about their perceived progress in their job searches on that day (i.e., “I had a productive day today in relation to my job search”; “I made good progress on my job search today”; “I moved forward with my job search today”; “Things did not go well with my job search today”; “I got a lot less done with my job search than I had hoped”; and “I hardly made any progress in looking for a job today”). The average coefficient alpha over the multiple time waves was .93. We ran a confirmatory factor analysis with these items along with the other psychological items included in the daily measures (positive affect, negative affect, and reemployment efficacy). Supporting the discriminant validity of our job search progress scale, a four-factor model with all items loading on the appropriate construct showed good fit (for example, for time 1: $\chi^2[183, n = 201] = 430.27, p < .001, SRMR = .07, CFI = .95$; similarly, for time 2: $\chi^2 [183, n = 198] = 532.01, p < .001, SRMR = .08, CFI = .94$). All factor loadings were significant at both times. Moreover, the four-factor models fit the data significantly better than competing models, including a one-factor solution with all items loading on a single factor (time 1: $\Delta\chi^2[6] = 1,456.72, p < .001, \Delta CFI = .18$; and time 2: $\Delta\chi^2[6] = 2,075.34, p < .001, \Delta CFI = .26$) and a three-factor solution with perceived progress and reemployment efficacy loading on the same factor (time 1: $\Delta\chi^2[3] = 801.96, p < .001, \Delta CFI = .10$; and time 2: $\Delta\chi^2[3] = 1,061.20, p < .001, \Delta CFI = .15$).

Affect. Positive and negative affect were measured by ten items from Barrett and Russell’s (1998) affect circumplex. Five items were used for positive affect (“excited,” “joyful,” “enthusiastic,” “proud,” and “interested”) and five for negative affect (“irritated,” “afraid,” “angry,” “nervous,” and “frustrated”). Individuals were asked to indicate to what extent “you have felt this way today” on a scale ranging from 1 (“very slightly or not at all”) to 5 (“extremely”). The average coefficient alpha was .92 for positive affect and .89 for negative affect.

Reemployment efficacy. Five questions inquired about individuals’ confidence that they would be able to find an acceptable job. For exam-

ple, they were asked to indicate how confident they were that they would “find a job if you look,” “get a good paying job,” “find a job that you like,” and “land a job as good as or better than the one you left.” The response scale ranged from 1 (“not at all confident”) to 5 (“highly confident”). The average coefficient alpha was .93.

Time spent in search. Individuals were asked each day, “How many hours have you spent on your job search today? (Please enter in whole or quarter hour amounts, e.g., 1, 1.25, 1.5, 1.75, 2 hours).” This one-item measure of time spent in job search has been shown to be highly correlated ($r = .56-.68$) with multiple-item assessments of job search intensity (Wanberg et al., 2005).

Financial hardship. Three items (Vinokur & Caplan, 1987; Vinokur & Schul, 1997) answered on scales ranging from 1, “not at all difficult,” to 5, “extremely difficult or impossible” ($\alpha = .83$) were used to measure financial hardship. A sample item is: “How difficult is it for you to live on your total household income right now?”

Employment commitment. Five of eight items from Rowley and Feather (1987) were used to assess employment commitment ($\alpha = .76$). A sample item is: “Having a job is very important to me” (1, “strongly disagree,” to 5, “strongly agree.”)

Action-state orientation. Action-state orientation was measured with the disengagement and initiative dimensions of Diefendorff et al.’s (2000) revised version of the Action Control Scale (ACS-90; Kuhl, 1994b). The *disengagement* dimension was assessed with eight items ($\alpha = .69$). A sample item is: “When I am told that my work has been completely unsatisfactory: (a) I don’t let it bother me for too long, (b) I feel paralyzed.” The *initiative* dimension was assessed with eight items ($\alpha = .75$). A sample item is: “When I have a lot of important things to do and they must all be done soon: (a) I often don’t know where to begin, (b) I find it easy to make a plan and stick with it.” High scores on the two scales indicate a greater action orientation and low scores indicate a greater state orientation. Although the third dimension of the Action Control Scale, persistence, was theoretically relevant, it was not used in this study because of conceptual and psychometric problems with this dimension. Specifically, in their validation study, Diefendorff et al. (2000) reported measurement problems for the persistence dimension (e.g., difficulty finding well-performing items), low reliability ($\alpha = .51$), and weak convergent validity with other self-regulatory variables. Also, other studies have reported low reliabilities and weak validity (e.g., Kanfer, Dugdale, & McDonald, 1994; Song et al., 2006). In

addition, several authors (e.g., Diefendorff, 2004; Kanfer, Dugdale, & McDonald, 1994) have concluded that the persistence dimension was less central to defining action-state orientation than the disengagement and initiative dimensions.

Control variables. Age in years; education level (1 = "high school/G.E.D.," 2 = "two-year college/vocational school," 3 = "B.A./B.S.," 4 = "M.A./M.S.," 5 = "Ph.D./M.D./J.D."); gender (0 = "male," 1 = "female"), and race (0 = "nonwhite" and 1 = "white") were included as controls owing to evidence suggesting these variables are relevant to job-search behavior or reemployment speed (Kanfer et al., 2001; Saks, 2005). *Number of days unemployed* at the time of baseline was also controlled. Occupation (three categories: "professional, technical, and managerial," "clerical and sales," and "other") and reason for unemployment (three categories: "laid off," "fired," and "other") were each examined as a control variable but did not show significant results or change the results in the analyses and thus were excluded from the analyses.

Analyses

Missing data were addressed for a small proportion of the data from the baseline surveys. For participants who skipped items on a scale but had data available for other items on that scale, personal mean imputation (Bernaards & Sijtsma, 2000) was used (0.22 percent of baseline points). Mean substitution (Roth, 1994) was used for variables for which all item scores on a scale were missing and for single-item scales such as time spent in the job search (0.42 percent of baseline points). Four values for gender and race were left missing.

The daily surveys were administered by online survey software that required every question to be answered; a person could not miss any one item unless he/she skipped the whole survey for the day. However, because of unique server/computer interactions, missing values occurred for a small percentage of data points (0.056%). As with the baseline survey, these were replaced via personal mean imputation or mean substitution.

We examined the electronic time stamps of each response to ensure that participants submitted their responses within the daily time frame established for the study. Eleven responses had inappropriate time stamps and were deleted (Ilies, Scott, & Judge, 2006). After missing data and time stamp issues were accounted for, the multivariate analyses reported in Tables 2 and 3 were based on a total of 2,519 and 2,146 observations, respectively.

The data set has a two-level structure with re-

peated measures (level 1) nested within individuals (level 2). We used hierarchical linear modeling (HLM) to test the within-individual relationships among perceived search progress, affect, reemployment efficacy, and next-day time spent in search, and the cross-level moderating effects of financial hardship, employment commitment, and action-state orientation on some of the within-individual relationships. Specifically, we regressed the daily outcome variables on the daily predictors across days at level 1 and estimated the moderating effects on the intercepts and slopes of the intraindividual relationships at level 2. The SAS command "proc mixed" (Fitzmaurice, Laird, & Ware, 2004) was used to fit these models.

RESULTS

Descriptive Statistics and Confirmatory Factor Analysis

Table 1 portrays descriptive statistics and between-individual correlations for the baseline measures and repeated measures. The average number of hours per day spent in job search over the 15 days of our study was 3.56, and the range was 0.4–8.6. Figure 2 gives more specific information about daily levels of job search. For example, the figure shows that 21.89 percent of our sample spent an average 2–3 hours a day on their job search over the three weeks of our study. We provide this additional descriptive data because previous research has not examined levels of job search in this manner.

Before testing the hypotheses, we examined whether systematic within- and between-individual variance existed in the repeated-measures variables via a series of intercept-only models. The analyses supported both conducting repeated measures and using hierarchical linear modeling on these data, as there was sufficient within- and between-individual variance in the measures over time. For job search progress, 28 percent of the total variance was between individuals (72 percent within); positive affect, 62 percent (38 percent within); negative affect, 50 percent (50 percent within); reemployment efficacy, 86 percent (14 percent within); and time spent in search, 54 percent (46 percent within).

Tests of Hypotheses

Table 2 presents the results of our hypothesis tests. In all the HLM models that we examined, we centered the level 1 predictor scores around the corresponding individual means using group mean centering (Raudenbush & Bryk, 2002). The centered

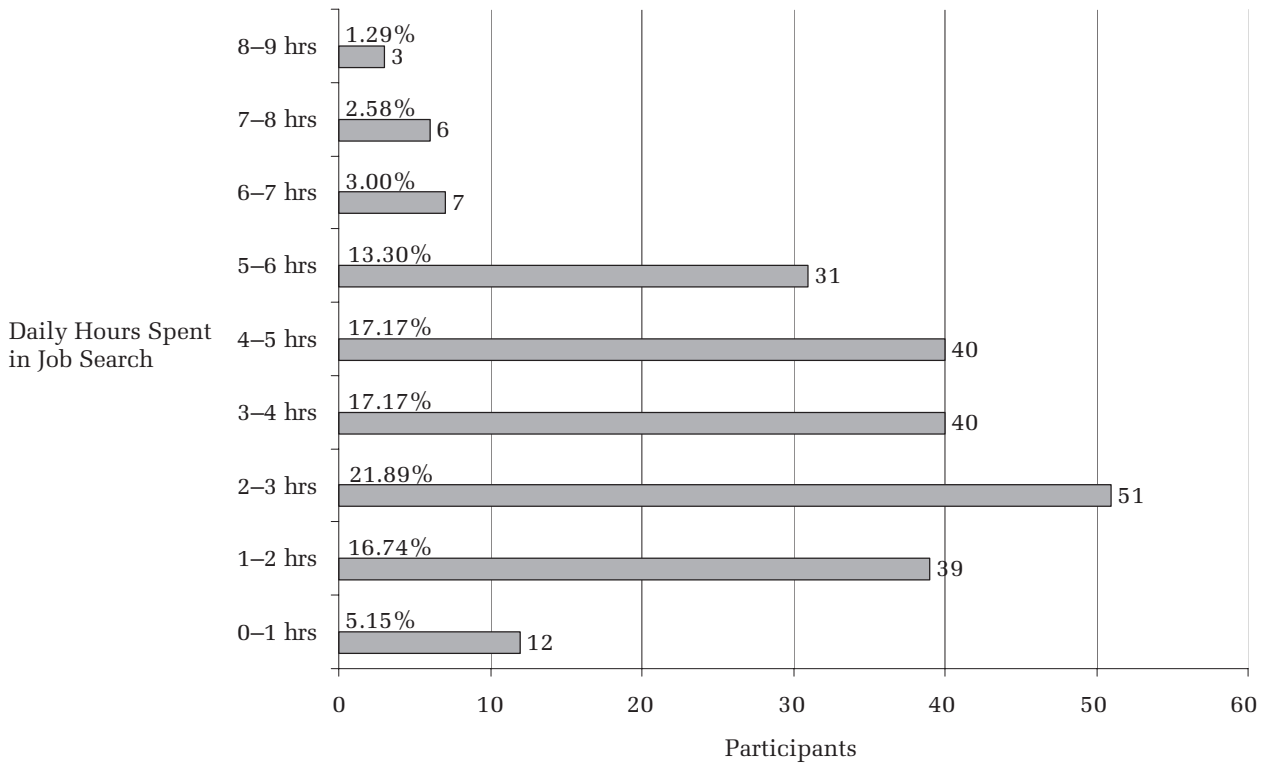
TABLE 1
Descriptive Statistics and Average Between-Individual Correlations^a

| Variables | <i>n</i> | Mean | Within-Individual s.d. | Between-Individual s.d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
|------------------------------|----------|--------|------------------------|-------------------------|-------|------|------|------|-------|-------|------|-------|-------|-------|-------|-------|-----|--|
| 1. Gender | 233 | 0.44 | | 0.50 | | | | | | | | | | | | | | |
| 2. Age | 231 | 43.78 | | 11.90 | .11 | | | | | | | | | | | | | |
| 3. Education | 231 | 2.29 | | 1.11 | -.08 | .18* | | | | | | | | | | | | |
| 4. Race | 231 | 0.88 | | 0.32 | .03 | .20* | .10 | | | | | | | | | | | |
| 5. Days unemployed | 233 | 113.66 | | 74.19 | .07 | .06 | .14* | -.07 | | | | | | | | | | |
| 6. Financial difficulty | 233 | 2.71 | | 1.04 | .08 | -.05 | -.10 | -.05 | .05 | | | | | | | | | |
| 7. Employment commitment | 233 | 4.23 | | 0.71 | -.07 | -.09 | -.06 | -.08 | -.12 | .09 | | | | | | | | |
| 8. ACS disengagement | 233 | 0.72 | | 0.24 | -.13 | .03 | .01 | -.04 | .02 | -.14* | .10 | | | | | | | |
| 9. ACS initiative | 233 | 0.77 | | 0.25 | .07 | .03 | -.03 | -.07 | .02 | -.07 | .09 | .41* | | | | | | |
| 10. Perceived progress | 229 | 3.47 | 0.76 | 0.58 | -.14* | -.07 | .11 | -.06 | -.07 | -.06 | .19* | .18* | .34* | | | | | |
| 11. Positive affectivity | 229 | 2.80 | 0.60 | 0.85 | -.12 | -.04 | .00 | -.13 | .03 | -.09 | .17* | .20* | .28* | .61* | | | | |
| 12. Negative affectivity | 229 | 1.87 | 0.47 | 0.73 | -.06 | -.12 | -.07 | .02 | -.03 | .29* | -.03 | -.35* | -.24* | -.32* | -.28* | | | |
| 13. Reemployment efficacy | 229 | 3.55 | 0.33 | 0.87 | -.11 | -.11 | .06 | -.10 | -.15* | -.22* | .14* | .22* | .24* | .56* | .58* | -.39* | | |
| 14. Time spent in job search | 229 | 3.56 | 1.45 | 1.75 | -.11 | .11 | .20* | -.02 | -.06 | .18* | .21* | .04 | .12 | .47* | .27* | .01 | .09 | |

^a Variables 1–9 were assessed on the baseline survey ($n = 231–233$). Variables 10–14 were assessed each day for a total of 15 measurements; correlations shown are averaged over the time periods. “ACS” is the Action Control Scale.

* $p < .05$

FIGURE 2
Average Daily Time Spent in Job Search



level 1 predictor scores represent the deviations from the individual means, and the mean of these deviations for each individual is zero. Thus, the between-individual variance of the centered scores is zero, allowing the level 1 HLM estimates to represent only within-individual effects without possible confounding by between-individual effects (Ilies, Schwind, Wagner, Johnson, DeRue, & Ilgen, 2007). All level 2 predictors (i.e., control variables and moderating variables) were centered around the sample mean of the respective variables (Raudenbush & Bryk, 2002).

Table 2 reports the HLM results for within-individual and cross-level effects. Hypothesis 1 suggests that higher perceived job search progress on each day *t* will be related to higher positive affect and lower negative affect *on the same day t*. This hypothesis was supported (see models 1 and 2 in Table 2). The coefficients indicate that a one-point increase in perceived job search progress was associated with a 0.41 point increase on the positive affect scale, and a 0.14 point decrease on the negative affect scale, with perceived progress explaining 35 and 6 percent of the within-individual variance of positive affect and negative affect, respectively. The within-person nature of this analysis shows that on days on which more progress was reported, individuals reported more positive

affect. On days on which less progress was reported, individuals reported more negative affect. Hypothesis 2 states that individuals who perceive more job search progress on day *t* have higher reemployment efficacy on the same day. This hypothesis was also supported (see model 3 in Table 2). Specifically, individuals who perceived one point more job search progress were 0.09 more confident about finding a job (perceived progress explained 10 percent of the within-individual variance of reemployment efficacy).

Hypothesis 3, which states that baseline levels of financial hardship and employment commitment moderate the relationship between perceived progress on day *t* and affect on the same day, was tested with cross-level interactions (see models 4 and 5 in Table 2). Before testing Hypothesis 3 and 4, we examined the variance of the slopes of daily perceived goal progress predicting daily affect and reemployment efficacy to see if these slopes varied significantly among individuals. The results showed that the variance of the slopes of perceived progress predicting positive affect, negative affect, and reemployment efficacy were all significant ($\hat{\zeta} = .05, .02, .01$, respectively, $p < .001$). Partially supporting Hypothesis 3, the results portray financial hardship as a moderator of both the perceived progress–positive affect relationship (see model 4; $\hat{\gamma} =$

TABLE 2
Hierarchical Linear Modeling Results for Intraindividual and Cross-Level Effects^a

| Variables | Model 1: Positive Affect | Model 2: Negative Affect | Model 3: Reemployment Efficacy | Model 4: Positive Affect | Model 5: Negative Affect | Model 6: Reemployment Efficacy |
|---------------------------------------|--------------------------------|--------------------------------|--------------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Intercept | 3.08** | 1.84** | 3.68** | 3.07** | 1.84** | 3.68** |
| <i>Controls and static covariates</i> | | | | | | |
| Gender | -0.17 | -0.12 | -0.10 | -0.02 | -0.12 | -0.10 |
| Age | 0.00 | -0.01 | -0.01 | 0.00 | -0.01* | -0.01 |
| Race | -0.25 | 0.17 | -0.28 | -0.25 | 0.17 | -0.28 |
| Education | 0.00 | -0.01 | 0.07 | 0.00 | -0.01 | 0.07 |
| Days unemployed | 0.00 | -0.00 | -0.00* | 0.00 | -0.00 | -0.00* |
| Financial hardship | -0.09 | 0.17** | -0.17** | -0.09 | 0.20** | -0.18** |
| Employment commitment | 0.21** | -0.07 | 0.17* | 0.20** | -0.06 | 0.16* |
| <i>Daily measure</i> | | | | | | |
| Perceived progress | 0.41** | -0.14** | 0.09** | 0.41** | -0.14** | 0.09** |
| <i>Interactions</i> | | | | | | |
| Financial hardship × progress | | | | -0.05* | -0.06** | 0.02 |
| Employment commitment × progress | | | | 0.02 | -0.02 | 0.02 |
| -2 log-likelihood | 4,552.50 | 5,289.90 | 2,381.00 | 4,558.50 | 5,289.70 | 2,391.20 |

^a For observations, $n = 2,519$; for participants, $n = 225$. SAS “proc mixed” analysis was used with the RE-AR(1) variance-covariance structure. Entries corresponding to the predictors in the first column are estimates of fixed effects, γ_s .

* $p < .05$

** $p < .01$

-0.05, $p < .028$; the direction of the interaction is opposite our prediction) and the perceived progress–negative affect relationship (see model 5; $\hat{\gamma} = -0.06$, $p < .001$; the interaction is in the expected direction). Specifically, financial hardship explained 3.3 percent of the variance in the perceived progress-to-positive-affect slope and 21 percent of the variance in the perceived progress-to-negative-affect slope. Figures 3A and 3B illustrate these interactions. Figure 3A shows a slightly stronger, positive relationship between perceived progress and positive affect for individuals with low, instead of high, financial hardship. Figure 3B suggests the relationship between perceived progress and negative affect was more negative for individuals with high, versus low, financial hardship. Hypothesis 4, stating that baseline levels of financial hardship and employment commitment moderate the relationship between perceived progress on day t and reemployment efficacy, was not supported (see model 6 in Table 2).

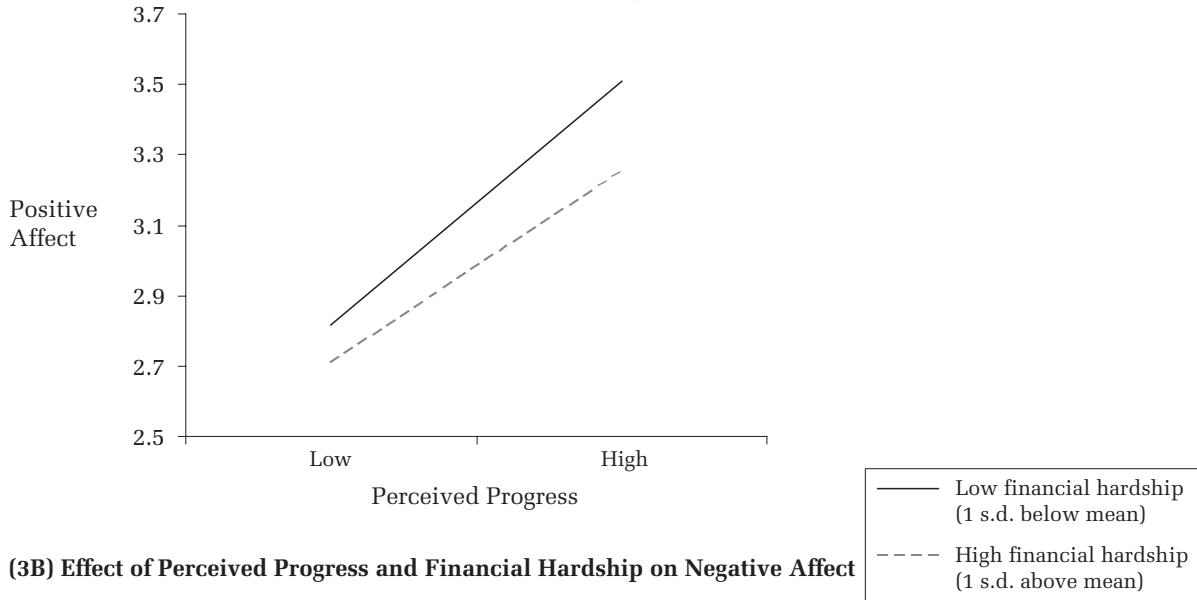
Hypotheses 5a and 5b state two possible relationships of perceived progress, positive affect, negative affect, and reemployment efficacy with time spent in job search on the day following a given day t . Table 3 shows the results of tests. The results in model 1 of Table 3 show partial support for Hypothesis 5b. Supporting the control theory perspec-

tive, there is a negative relationship between day t levels of perceived progress and the next day’s reported time spent on job search ($\hat{\gamma} = -0.23$, $p < .0001$), suggesting that higher progress on day t was related to lower, rather than higher, effort put into job search on day $t + 1$. Positive and negative affect and reemployment efficacy were not significantly related to time spent in job search on the next day. The negative relationship between perceived progress and time spent in search the next day was not a result of individuals having accepted job offers, since individuals were removed from the sample once they accepted offers, and this finding remained even when we removed 17 additional individuals who indicated that they had received job offers they had not yet accepted. The negative relationship between day t levels of perceived progress and the next day’s reported time spent on job search also held with a slightly larger effect size ($\hat{\gamma} = -0.37$, $p < .0001$) when we controlled for time spent in the job search on day t .

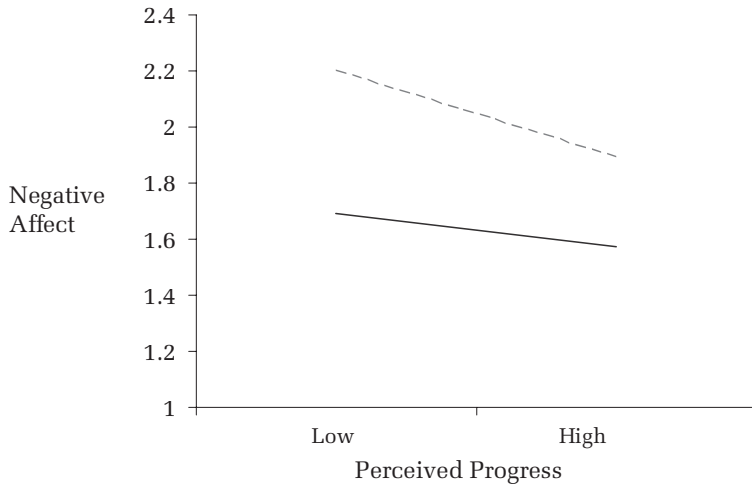
Although not directly hypothesized, our conceptual model portrays affect and reemployment efficacy as partially mediating the relationship between perceived progress on one day and the next day’s search effort, and it also suggests action-state orientation as a moderator between affect, efficacy,

FIGURE 3
Interactions in the Prediction of Positive Affect and Negative Affect

(3A) Effect of Perceived Progress and Financial Hardship on Positive Affect



(3B) Effect of Perceived Progress and Financial Hardship on Negative Affect



and effort. Following Bauer, Preacher, and Gil's (2006) procedures, we examined the level 1 mediation as well as multilevel moderated mediation. Neither one was supported. Specifically, although perceived day *t* progress was related to the affect/efficacy variables as well as to search effort on day *t* + 1, the affective and efficacy constructs did not seem to play a mediating role in this relationship. For example, for positive affect mediating the relationship between perceived progress and time spent the next day, the direct effect was $-.23$, and the indirect effect was $-.02$ (s.e. = $.03$, n.s.). We do not provide the details of this procedure here since the data did not support mediation or moderated mediation.

Hypothesis 6 states that action-state orientation

moderates the relationships of perceived progress, affect, and reemployment efficacy on day *t* with time spent in job search the next day. The proposed interactions were examined in models 2 and 3 shown in Table 3. The variance of the slopes of perceived progress and reemployment efficacy predicting job search effort on the next day were not significant ($\hat{\zeta} = 0$; 0.004 , $p > .05$). The variance of the slopes for positive and negative affect to job search effort on the next day were $.05$ ($p = .17$) and $.15$ ($p < .05$). Although it must be considered exploratory, we tested the effects of moderators on these latter two slopes (Raudenbush & Bryk, 2002), given that the two variables were associated constructs and the one slope was not substantially outside the bounds of significance. Only one inter-

TABLE 3
Hierarchical Linear Modeling Results for Tests of
Hypotheses 5a and 5b and Moderation^a

| Variables | Time Spent in Job Search the Next Day | | |
|---------------------------------------|---------------------------------------|--------------------|----------|
| | Model 1 | Model 2 | Model 3 |
| Intercept | 3.00** | 2.98** | 2.92** |
| <i>Controls and static covariates</i> | | | |
| Gender | -0.38 | -0.38 | -0.40 |
| Age | 0.02 | 0.02 | 0.02 |
| Race | -0.25 | -0.24 | -0.19 |
| Education | 0.40** | 0.40** | 0.41** |
| Days unemployed | -0.00 | -0.00 | -0.00 |
| Financial hardship | 0.32** | 0.33** | 0.34** |
| Employment commitment | 0.47** | 0.46** | 0.44** |
| ACS disengagement | | 0.26 | |
| ACS initiative | | | 1.19* |
| ACS persistence | | | |
| <i>Daily measures</i> | | | |
| Perceived progress | -0.23** | -0.23** | -0.23** |
| Positive affect | -0.03 | -0.04 | -0.03 |
| Negative affect | -0.01 | -0.03 | -0.00 |
| Reemployment efficacy | 0.19 | 0.19 | 0.19 |
| <i>Interactions</i> | | | |
| ACS disengagement × positive affect | | -0.55 [†] | |
| ACS disengagement × negative affect | | -0.56 | |
| ACS initiative × positive affect | | | -0.38 |
| ACS initiative × negative affect | | | 0.03 |
| -2 log-likelihood | 8,347.90 | 8,339.60 | 8,340.60 |

^a For observations, $n = 2,146$; for participants, $n = 224$. SAS “proc mixed” analysis was used with the RE-AR(1) variance-covariance structure. Entries corresponding to the predictors in the first column are estimates of fixed effects, γ_s .

* $p < .05$

** $p < .01$

[†] $p < .013$

action was significant (see model 2 and Figure 4).³ As hypothesized, especially when positive affect was low on any day t , goal effort on the following day was lower for more state-oriented individuals than it was for more action-oriented individuals ($\hat{\gamma} = -0.55$, $p < .013$, explaining 39 percent of the variance of the positive-affect-to-search-time next-day slope). In contrast, when positive affect on any

day t was high, self-regulatory skill did not differentially affect time spent in search on the following day. The other proposed interactions were not supported. Model 3 shows a positive main effect for the initiative dimension of action-state orientation; higher levels of initiative were related to higher levels of search over the three weeks of our study.

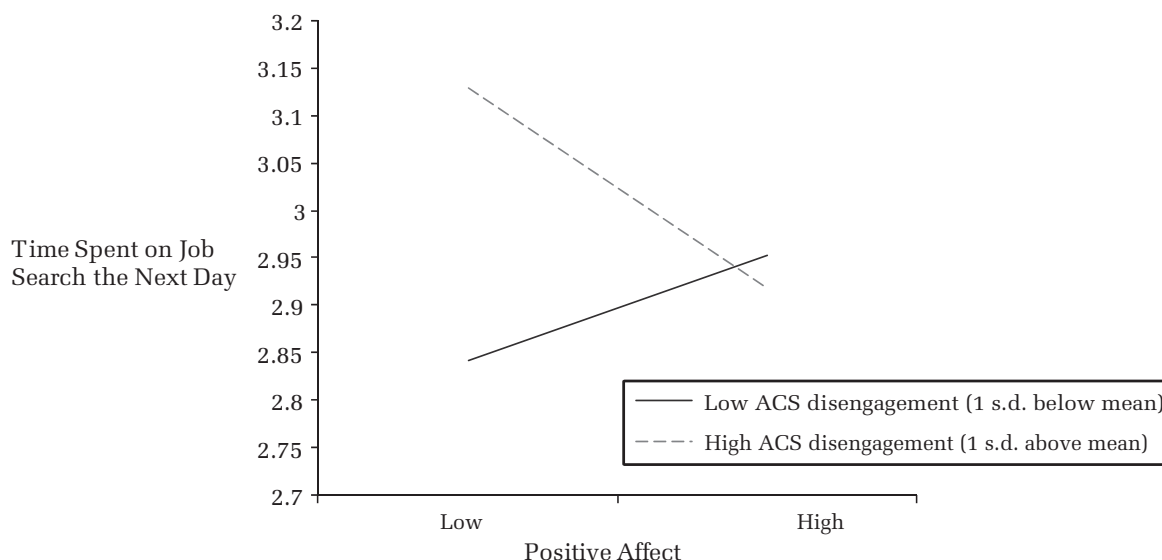
Supplementary Analysis

Our data portray the utility of within-person analyses. As we have reported, there is a negative within-person relationship between perceived progress on day t and time spent in job search on day $t + 1$. There is also a negative within-person relationship between time spent in job search on day t and time spent in job search on day $t + 1$ ($\hat{\gamma} = -0.23$, $p < .0001$). In contrast, the average *between-individual* correlation between perceived progress on any day t and job search on any day $t + 1$ and the average *between-individual* correlation between job search on any day t and day $t + 1$ are both positive (i.e., $r = .21$, $p < .01$; $r = .59$, $p < .001$, respectively). These data suggest that *across* individuals, people who perceive more progress or put more time into their search on any day tend to put *more* time into their job searches on other days. However, looking at the same individuals over time, there is a tendency to vacillate in the time spent in search, whereby more search time on one day is followed by less search time the following day.

A quick inference one might draw from these data is that perhaps individuals follow this type of vacillating pattern because they get a lot done on one day and then don't really know what to do next, so they allow some time to pass. However, in a supplemental question used in the survey, the most commonly endorsed reason for not working on one's job search on any given day was “had family obligations” (35.4%) whereas “didn't know what to do next” was only endorsed by 6.1 percent of respondents. Other reasons for not working on one's search on any given day included “discouraged” (9.5%), “wanted to do other things” (15%), “need a break” (13.6%), “did not feel well” (18.4%), and “other” (i.e., “errands,” “doctor appointments,” “worked less hard due to a productive day yesterday”; 27.2%). It is notable that these reasons provide some support for both the social cognitive theory perspective (discouragement results in less work on job search for some individuals) as well as for the control theory perspective (individuals who perceive progress pursue competing goals).

³ Family-wise error rate was used to test the significance of the interactions.

FIGURE 4
Effect of Positive Affect and Action-State Orientation on Time Spent on Job Search the Next Day



DISCUSSION

Although several further studies will be needed to understand the dynamics of job search, this study provided new insights about the job-search process, having valuable implications for continued research and building theory as well as for job seekers, outplacement firms, and state agencies helping unemployed individuals.

Summary of Findings and Implications

Our results can be summarized into four primary findings. First, our results portray job search as a bit of a roller coaster, with ups and downs in perceived progress and experienced affect and (comparatively less so) reemployment efficacy. Extensive research has examined well-being among unemployed individuals, for example comparing the mental health of unemployed and reemployed individuals or examining the mental health of individuals moving from unemployment to reemployment (McKee-Ryan, Song, Wanberg, & Kinicki, 2005). Studies of job search have only recently examined the role of state affect (Crossley & Stanton, 2005), and our study is the first to examine the daily affect of job seekers. Our findings help provide insight into the mechanisms behind and moderators of observed changes in daily affect among job seekers. Our within-person analyses showed that when individuals reported lower progress on any given day, they tended to also report lower positive affect, higher negative affect, and lower confidence about their chances of finding a job. Moderation results sug-

gested that limited perceived job search progress was associated with the strongest negative affect among those with high financial hardship. In contrast, higher perceived search progress was associated with the strongest positive affect among those with low financial hardship. Although the latter finding is the opposite of what we predicted initially, together with the former moderation, it provides an interesting pattern. This pattern has been described as an exacerbator in the team conflict literature; specifically, financial hardship *strengthened* the negative effects of low search progress and *weakened* the positive effects of high search progress (Jehn & Bendersky, 2003). Although we must be careful in inferring causality, these results illustrate the consequences that daily job search challenges may have for experienced affect among unemployed job seekers and, furthermore, they extend understanding of the role of financial hardship in the unemployment experience. Drawing from Vinokur and Schul's (1997) work, we suggest it would be particularly useful for individuals with higher financial hardship to engage in "inoculation against setback" techniques, such as imagining possible setbacks and anticipating coping strategies.

A second result was that lower positive affect on any given day was related to less search effort on the following day for individuals with lower ability to detach from negative thoughts (i.e., low disengagement), but with more effort for those with higher disengagement. This result suggests that state-oriented individuals may need positive mood to be motivated, whereas action-oriented individu-

als may need negative mood to be motivated. Our results did not support main effects for affect and previous day reemployment efficacy in the prediction of next day search. Our findings for efficacy are surprising, given that previous research has established the relevance of self-efficacy to task performance and resource allocation (time and effort). Our operationalization of efficacy may explain our findings. We operationalized efficacy as confidence in the ability to find an acceptable job, which is an outcome (e.g., rather than a task-based) expectancy. Research has suggested that relationships with efficacy constructs may differ depending on the conceptualization (Yeo & Neal, 2006). Bandura's (1986) work also suggests that the time elapsed between the assessment of self-reactions and an action may affect the degree of the relationship. For example, it is possible that individuals may reappraise their self-efficacy or affect between evening and the next day. It is furthermore possible that other as yet untested moderators may highlight conditions under which affect or efficacy may influence subsequent time spent in search, as at least a small minority of individuals noted that they did not work on their job search because of feeling discouraged (as reported in our supplemental analyses).

Third, with regard to the direct relationship between perceived progress and the next day job search effort, we found that perceived progress on any given day was negatively related to time spent in job search on the next day. The more (less) progress people made on a specific day, the less (more) time they invested in job seeking the day after. This finding supports the control theory perspective (Carver, 2003, 2006), which suggests that the reaction to lower perceived progress is to try harder and that higher perceived progress may result in "coasting behavior," or less time and effort put toward the focal goal. These results identify a pattern of job seekers' "taking a break" after perceiving they have made good progress. This finding is very interesting, given that the hypothesized relationship can be argued in two different ways (see Hypotheses 5a and 5b), and even practitioners we spoke to while this project was underway thought it was equally plausible that higher (versus lower) levels of job search progress on any day t could encourage (versus discourage) job seekers and result in higher (versus lower) levels of job search effort on the next day. In view of this result, we believe it is reasonable to warn job seekers that there is a tendency to take breaks after progress in a job search. Our work with job seekers has led us to observe cases in which it is dysfunctional for individuals to take breaks after perceived progress.

Some individuals have a tendency to put "all of

their eggs in one basket" and to assume that, after applying for and researching a given job, they can take time off, because they are convinced they will get that particular job. Crossley and Highhouse's research (2005) suggested that individuals who use an exploratory approach in their job searches, rather than a focused approach, obtain more job offers (although not necessarily more satisfaction with the acquired jobs).

Finally, both because of the aforementioned results and because of the undeveloped status of research on job search over time, the descriptive data about the time unemployed individuals spend in daily job search are of interest. Extrapolating from Figure 2, we note that 21.89 percent of the job seekers in our sample spent less than ten hours a week on their job searches. Although the optimal level of search is as yet not known, research has supported a relationship between higher search intensity and faster reemployment (Kanfer et al., 2001). Our supplementary data outline reasons individuals provided for taking time off from their job searches and suggest that we cannot unequivocally support control theory's contention that individuals will take such time off when they are making good progress to pursue other goals (e.g., several individuals noted they wanted to do other things, or that they worked less hard because of a productive day yesterday). A small number of individuals indicated they took time off because of being discouraged, which suggests taking time off because of low perceived progress, a finding supportive of social cognitive theory. These intriguing results suggest an opportunity for further research and insight into these theoretical perspectives and their relation to the job search process.

Practitioners helping job seekers can use the findings we report and the implications we note above. The results provide an empirical glimpse inside the flow of job search from day to day. Job search workshops are good at giving job seekers individual methods and tools to use in their searches, but they are more or less silent on the flow of the experience and process and how individuals might more effectively spend their time day to day. The findings of within-person vacillation in job search time from day to day, together with the reasons individuals say they do not put time into their job searches, suggest that some individuals may benefit from information on how to structure their search efforts. Networking groups may benefit from discussing how job seekers can juggle other responsibilities (such as caring for children—parents often have child care arrangements in place when they work but not while they are unemployed) during their job searches without going

off-track. A strong caveat is that it is important to recognize that not all individuals need to put more time into their job searches (e.g., a small percentage of individuals in our sample consistently put in six to eight hours a day). Researchers also need to learn more about the optimal levels of job search. Although data suggest more is better, it is still unclear how many hours per week or per day of search should be recommended to individuals.

Research Contributions

Our conceptual model and translation of self-regulation theory and constructs in this literature to the dynamic job search context represent a valuable theoretical contribution because they provide a solid start for many potential studies examining job search from a process and dynamic self-regulatory perspective. Our findings that 14–72 percent of the variance in our constructs lay at the within-individual level, and that within-individual relationships could differ substantially from between-individual relationships (e.g., the progress–time spent in job search relationship), suggest that a within-individual approach has substantial possibilities for enhancing theory and research in the context of job seeking. Taking our conceptual model as a beginning framework offers many opportunities for expansion, including examination of other moderators and outcomes, using other units of time, and incorporating a wider base of the burgeoning literature related to goal progress in other domains.

The model can first be extended with regard to careful examination of other potential moderators of the relationships portrayed. Social cognitive theory, for example, suggests a variety of other moderators that might be examined with regard to the self-perceived progress and self-reactions relationship. Although we examined the role of goal valence (with measures of financial concerns and employment commitment), moderators to study in future research might include how much effort individuals feel they have put in, their physical state, the extent to which they perceive the job search as demanding, and causal attributions (see, for example, Bandura [1986, 1991]). Individuals are more likely to be discouraged by a lack of perceived progress when they perceive themselves as having tried really hard and when they cannot attribute their poor progress to external forces. Our model can also be extended to examine additional job seeker outcomes that may stem from negative or positive self-reactions, including changes in physical and mental health, job search quality, and direction of effort (Seo et al., 2004). Although our model focuses on the role of self-perceived progress

during job search, other focal constructs stemming from the self-regulation literature, such as coping efficacy and coping goals, are also highly relevant (Latack, Kinicki, & Prussia, 1985) and could be integrated into dynamic research designed to help explain the job search process.

Self-regulation theory is inherently dynamic (Carver, 2004), and the dynamics described in the various theories can be operationalized in a number of ways that would benefit the study of job search. Our aim was to examine the roles of perceived progress, affect, efficacy, and effort put forth during job search from day to day. Our research does not allow us to understand the effects of *enduring* perceptions of lack of perceived progress or enduring low affect or efficacy on effort, and seeking such understanding is a logical next step. Brunstein and Gollwitzer (1996), for example, noted the utility of examining the impact of failures and setbacks on subsequent performance from a time course perspective. They argued that initial failures may have a motivating impact; individuals' failure experiences only result in their giving up when the failures continue over time. Schmidt and DeShon (2007) found support for this idea; they found that the goal progress–task effort relationship changed over time, in such a way that as time passed, people spent more time on the tasks in which they had made the most progress and gave up on tasks with low progress. Researchers still know very little about how job search goals, methods, and intensity change over the longer periods of time characterizing the full duration of the unemployment experience. For example, over the long run, when individuals do not perceive progress in their job searches, some may decide to go back to school or take further training, whereas others may give up.

Finally, burgeoning literature on goal progress and goal performance discrepancies can also be used to extend our conceptual model (e.g., Donovan & Hafsteinsoon, 2006; Louro, Pieters, & Zeelenberg, 2007; Schmidt & DeShon, 2007). For example, Louro et al. (2007) suggested that when individuals have low progress on a focal goal, they experience negative emotions. Continued effort allocation depends on whether individuals perceive they are close to achieving their goals. Louro et al.'s multiple goal pursuit model suggests incorporating a perceptual assessment of how temporally near individuals believe they are to their reemployment goal (e.g., "I believe I will be reemployed/receive a job offer within the next week"). Our model removed an individual from the sample once he or she had received a job offer and incorporated a measure of reemployment efficacy, but the inclusion of a more specific goal proximity measure as a

potential moderator might be valuable. Much of the available goal discrepancy research has been applied in contexts in which individuals concretely know how close they are to goal achievement (e.g., weight loss, test scores), but attempts to adapt timing/proximity concepts to the unemployment context (where individuals do not have clear feedback on goal proximity) would be valuable.

Our study also represents a new and unique empirical contribution to the job search literature. Research on the experience of unemployment has primarily focused on the following areas: (1) the impact of job loss on well-being, (2) predictors of reemployment speed and quality, (3) predictors of job search intensity, and (4) the effectiveness of interventions designed to speed reemployment. A lack of understanding of job search from a dynamic perspective, both day to day and week to week, has strongly impeded progress in each of these areas. It is difficult, for example, to improve interventions to speed reemployment without a deeper understanding of the job search process and what happens day to day. The within-respondents design used in this study, paired with our proposed conceptual model, allowed the introduction and examination of new constructs (e.g., perceived progress and daily affect) and provided new information about individuals' vacillation on these variables and possible mechanisms involved in these changes. The daily design also allowed us to learn more, descriptively, about the time individuals spend in their job search without incurring the problems of retrospective bias that often plague such research.

Lastly, our research makes supplemental contributions to the literature on goal pursuit and self-regulation. Understanding individual differences in goal-related effort is a central concern in the research on motivation. Research is beginning to examine effort in dynamic contexts, but within-person examinations, especially in field contexts, where performance outcomes really matter to participants, are still very rare (Yeo & Neal, 2008). Our adaptation of goal pursuit and self-regulation theory to developing and testing a model in an important field context is a valuable contribution to this literature. Our examination of moderators is also meaningful to it. For example, Deifendorff and Lord (2008) highlighted the importance of goal importance and the extent to which it has not been adequately integrated into examinations of social cognitive theory and control theory. Our findings suggesting that a small number of individuals indicated they did not look for work on certain days because of being discouraged (a notion that suggests control theory cannot uniformly explain the

relationships posited in our model) are also helpful in supporting the argument for integration of self-regulatory perspectives (Deifendorff & Lord, 2008).

Limitations

It is worthwhile to mention limitations of this study in order to provide boundaries on conclusions that can be drawn from our data collection. Although our focal outcome variable (time spent in next-day search) and moderators were separated in measurement (assessed one day later or at the baseline) from the other predictors, some constructs—such as perceived progress, affect, and reemployment efficacy—were measured each day at the same time. The relationships reported between the constructs assessed on the same day may be inflated and should not also be used to draw directional conclusions. For example, it could be the case that negative affect on any given day t leads to less perceived job search progress, rather than that less progress produces negative affect (Bandura, 1999). Conceptually and theoretically, a time lag between these constructs did not make sense for our research design. Experienced affect is a state-based construct, best assessed close to the target of interest. On the positive side, our design minimizes other response biases, such as recall bias, given that individuals provided information about their searches daily. Studies in other contexts, such as that by Brunstein (1993), have suggested that perceived progress improves affect rather than vice versa, but continued research on causal direction will be necessary.

Second, the results apply to unemployed adult job seekers and should not be generalized to student job seekers looking for work while seeking education, or to employed job seekers. Our unemployed participants all had internet access either at home or elsewhere and came from one geographical region, both of which further limit generalizability. All were unemployment insurance claimants, who tend not to include individuals fired through faults of their own, or individuals with relatively low attachment to the workforce. Our respondents were also more likely than nonrespondents to be female. Because we had a range of days unemployed (a value we controlled for in our analyses), we cannot simply generalize these results to individuals who have been recently unemployed or those who have been unemployed for a long time. As another next step, a study tracking individuals over time, beginning early in their unemployment experience, would be optimal. Overall, these sample-specific limitations should be taken into account when interpreting results.

Third, although Bolger, Davis, and Rafaeli (2003) suggested there is little evidence that effects such as reactance pose a threat to the validity of diary data, it is possible that participating in a daily diary study affected participants' experiences and/or responses. On a positive note, the use of a daily diary design reduces retrospective bias (Bolger et al., 2003) and is thus likely to yield more accurate estimates of job search activities than research in which participants report their job search activities for the last few weeks or months.

Conclusion

The present study applied insights from motivation and self-regulation theories to examine how changes in job search progress and daily affect and efficacy are related to daily vacillations in job search activity. Although we acknowledge there is much more progress to be made, our study provides several new insights into the job search experience. This and further research to clarify the dynamics of job search are necessary to develop a complete understanding of the job search experience.

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