

## Articles

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# Career Engagement: Investigating Intraindividual Predictors of Weekly Fluctuations in Proactive Career Behaviors

Andreas Hirschi and Philipp Alexander Freund

This study applied a microlevel perspective on how within-individual differences in motivational and social-cognitive factors affected the weekly fluctuations of engagement in proactive career behaviors among a group of 67 German university students. Career self-efficacy beliefs, perceived career barriers, experienced social career support, positive and negative emotions, and career engagement were assessed weekly for 13 consecutive weeks. Hierarchical linear regression analyses showed that above average levels of career engagement within individuals were predicted by higher than average perceived social support and positive emotions during a given week. Conversely, within-individual differences in self-efficacy, barriers, and negative emotions had no effect. The results suggest that career interventions should provide boosts in social support and positive emotions.

*Keywords:* career engagement, diary study, university students, self-directed career management

For several years, the careers literature (Arnold & Jackson, 1997) has stressed that people need to become increasingly self-directed in their career management, implying a lifelong process of proactively shaping one's work experiences. Consequentially, proactive career behaviors (e.g., career planning, networking, exploration) are essential for attaining objective and subjective career success (Zikic & Klehe, 2006). Such career engagement (i.e., the degree to which somebody is proactively exhibiting different career behaviors to enhance his or her career development) is therefore of great theoretical and organizational importance. Moreover, career engagement is also becoming more important within the career counseling practice. Career counseling is more and more moving beyond focusing on career decision making and is increasingly concerned with getting clients engaged in proactive career management (Greenhaus, Callanan, & Godshalk, 2010).

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However, although both the theoretical and practical importance of career engagement have been demonstrated, the underlying factors that promote career engagement have not been clearly established. Cross-sectional and longitudinal studies (e.g., Rogers, Creed, & Glendon, 2008) have shown that personal (e.g., neuroticism, career decision-making self-efficacy) and environmental factors (e.g., perceived career barriers, social support) affect interindividual differences in career engagement, for example, in terms of career planning and exploration. Whereas such previous research is important to explain why some people show higher levels of career engagement than others do, the research has its limitations: It provides information only on differences between individuals. For example, if a person receives more social support compared with other people, does he or she also report more career engagement compared with other individuals? However, in career development theory and practice, researchers are also often interested in what will happen within a given person (i.e., intraindividual processes) and not just across a set of persons (i.e., interindividual processes). For example, a career counselor might wonder whether an increased amount of social support for a given client will lead to increased career engagement for this client. Such knowledge on within-individual change is pivotal for increasing the theoretical understanding of engagement in self-directed career management and for the practice of career interventions. However, the currently available studies do not address what factors affect within-individual change in career engagement because they focus on between-person effects.

Our study addresses this issue by investigating how intraindividual differences in motivational and social-cognitive factors affect weekly intraindividual changes in career engagement among university students. We specifically examined repeated measures data, which were assessed for 13 consecutive weeks regarding the intraindividual effects of career self-efficacy, perceived career barriers, perceived social career support, and experienced positive and negative emotions on within-individual changes in career engagement. In contrast to extant research that investigates traits and relatively stable states as predictors and consequences of career management, we conceptualize career engagement and different motivational and social-cognitive factors as malleable states that can change from one week to the next. Specifically, we are interested in how weekly within-individual deviations from averages in motivational and social-cognitive factors affect weekly fluctuations in career engagement. In this way, our study provides a microlevel perspective of the intraindividual processes that shape an individual's amount of career engagement over relatively short time periods.

## **Motivational and Social-Cognitive Predictors of Career Engagement**

Our selection of the investigated predictor variables of career engagement was based on the view that optimal human development is the result of favorable person-in-context functioning and is situated within a developmental-contextual view of human and career development that sees humans as active, self-regulating, self-constructing living systems

(Vondracek, Ferreira, & Santos, 2010). In line with this perspective, we were interested in selecting predictor variables that represent motivational (Ford, 1992) and social-cognitive (Lent, Brown, & Hackett, 2002) constructs that are empirically established and/or theoretically important to explain interindividual differences in career management in order to investigate their utility at the within-person level. We selected a set of variables that represent internal as well as external (environmental) aspects and tap into cognitions as well as emotions. Specifically, we selected career self-efficacy beliefs, positive emotions, and perceived social career support as important constructs that are likely to incline people to actively engage in self-directed career management. On the other hand, we chose negative emotions and perceived career barriers as important constructs that would act as avoidance motivators and inhibit active engagement in the task. The next sections review the literature regarding self-efficacy beliefs, positive and negative emotions, perceived social support, and career barriers in relation to career engagement.

### **Self-Efficacy Beliefs**

Bandura (1989) stated that “among the mechanisms of personal agency, none is more central or pervasive than people’s beliefs about their capabilities to exercise control over events that affect their lives” (p. 1175). The belief that one is capable of successfully achieving a task is related to increased engagement in the task in terms of both taking on the task and the level of effort and persistence during task execution (Bandura, 2006). King (2004) proposed self-efficacy as an important antecedent to career self-management because people are likely to use career self-managing behavior to a greater extent when they feel competent to do so. Although self-efficacy beliefs can be generalized to represent a more trait-like personality disposition, they usually refer to a specific, task-and-context, state-like construct (Bandura, 2006). Along this line of thought, it is reasonable to assume that career self-efficacy as a state can show meaningful change within a person from week to week. The positive relations of self-efficacy beliefs to career engagement have been confirmed by a number of empirical studies (e.g., Creed, Patton, & Prideaux, 2007; Rogers et al., 2008), which showed that high school and college students with higher career self-efficacy beliefs also reported more career exploration and planning compared with other study participants.

### **Emotions**

In motivational theories (Ford, 1992), emotions play an important role as an activating force in directing behavior because they energize goal-directed activities. This is in agreement with Fredrickson’s (2001) broaden-and-build theory of positive emotions. The theory states that positive emotions act as approach motivators; broaden thought–action repertoires; and build intellectual, social, and physical resources, which can be called on in later times of need. This reasoning is supported by different studies that have shown that positive mood and emotions promote proactive behavior and planning (Bindl, Parker, Totterdell, & Hagger-Johnson, 2011) and enable success in a variety of areas (Lyubomirsky, King, & Diener, 2005), including one’s career (Boehm & Lyubomirsky, 2008). Conversely, negative emotions, such as anxiety

and uncertainty, are observed as obstacles for career learning and career identity construction because they inhibit approach behaviors and act as avoidance motivators (Meijers & Wardekker, 2002). Career research often examines the trait-like disposition to experience positive or negative affect (Judge & Larsen, 2001). However, emotions frequently change, which makes it important to assess the emotional experience of individuals with short-term assessments (e.g., on a weekly basis as performed in the present study) if researchers want to understand the microlevel effects of emotions on career development.

Despite their importance, the role of emotions has been frequently neglected in career theory and research, resulting in calls for better integrating emotions in career research (Hartung, 2011; Kidd, 2004). Recent elaborations on social cognitive career theory (SCCT; Lent & Brown, 2008; Lent et al., 2005) also acknowledged the importance of affect for career development and stated that affectivity has an important effect on well-being in life and work because it affects, among other things, social-cognitive factors such as self-efficacy beliefs. However, most often, career researchers did not consider state emotions but investigated trait-like personal characteristics in terms of positive and negative affectivity or the related personality traits of extraversion and neuroticism. For example, empirical studies (Côté, Saks, & Zikic, 2006) have shown that positive affectivity positively relates to job search clarity, intensity, and self-efficacy among undergraduate students, whereas anxiety and neuroticism are frequently reported as predictors of career indecisiveness (Saka & Gati, 2007). Neuroticism also negatively relates to career planning and decision-making self-efficacy among adolescents and high school students (Rogers et al., 2008). However, neuroticism and anxiety seem to promote career exploration (Reed, Bruch, & Haase, 2004; Vignoli, Croity-Belz, Chapeland, de Fillipis, & Garcia, 2005), contradicting the broaden-and-build assumption and indicating a complex relation of emotions and career management. It is possible that such findings can be explained by differentiating between-person from within-person effects. Between individuals, higher neuroticism values might be positively related to career exploration because they are related, on average, to engaging in more ruminative exploration. However, within individuals, more negative emotions might inhibit exploratory activities, as implied by the broaden-and-build framework. Our study addresses the call for increased attention to emotions in career development and extends previous studies by focusing on within-person differences in state emotions.

### **Social Career Support**

From a developmental-contextual perspective, the social context and relational aspects in career development must be considered to understand optimal person-in-context functioning (Vondracek et al., 2010). Although many other career choice and development theories have traditionally focused on the individual, the importance of the social environment in career development is increasingly recognized. As an important example, Blustein's (2011) relational theory of working stresses this relational context of careers by stating that working and relationships overlap considerably, with each domain of life affecting the other. He further asserted that the process of career decision making and exploration is

facilitated and/or inhibited by relational experiences. Thus, social support acts as an environmental resource and approach motivator that can facilitate career engagement by providing informational, emotional, and tangible support for proactive career management. We assume that perceived support can show meaningful variation from one week to another (e.g., it might be lower than usual if one's partner has been very occupied with his or her work during the week, or higher than usual if a person happened to have a supportive conversation with a close friend that he or she did not have the chance to talk to for some time). In a qualitative study among undergraduate students, Schultheiss, Kress, Manzi, and Glasscock (2001) showed that social support from family is strongly related to career development issues for this group and is experienced as a facilitating factor, if present, or a hindering factor, if lacking. Quantitative studies (Dietrich & Kracke, 2009; Kracke, 2002) have also revealed that parental support and child-centered parenting styles are positively related to career exploration for adolescents, and that social support generally (i.e., from significant others, peers, or institutions) has similar effects on career exploration and planning for adolescents (Hirschi, Niles, & Akos, 2011), high school students (Creed, Fallon, & Hood, 2009; Kenny & Bledsoe, 2005; Rogers et al., 2008), and unemployed job seekers (Zikic & Klehe, 2006).

### **Perceived Career Barriers**

Apart from personal efficacy beliefs, human agency and motivation also depend on a perception of favorable environmental conditions (Bandura, 2006; Ford, 1992). In SCCT (Lent, Brown, & Hackett, 2000), perceived career barriers have been acknowledged as a contextual factor influencing the formation and implementation of career choices. From a developmental-contextual view (Vondracek et al., 2010), people evaluate their environment and their resulting perception of the environment affects motivation and career development processes. Hence, theory and empirical research suggest that it is the perception of the environment that has a strong effect on agency in career development. We assume that the subjective perception of the context and its barriers can show meaningful change within an individual from week to week. Such a perception may depend on the current mood of a person as well as recently obtained or currently recalled information about possible obstacles (e.g., a news report about high unemployment rates among university graduates). Supporting the practical relevance of career barriers, qualitative studies have shown that college students report perceiving different barriers that are personal, social, or labor-market specific (Lent et al., 2002; Swanson & Tokar, 1991). Quantitative research (Lucas & Epperson, 1990) has confirmed that perceived barriers are related to career indecision, lower career expectations (Creed, Conlon, & Zimmer-Gembeck, 2007), and less career planning among girls low in self-efficacy (Cardoso & Moreira, 2009).

### **Purpose of Study**

We sought to investigate to what extent intraindividual differences in motivational and social constructs act as positive (career self-efficacy

beliefs, positive emotions, perceived social career support) or negative (negative emotions, perceived career barriers) predictors of weekly fluctuations in career engagement among university students. We hypothesized that, within individuals,

*Hypothesis 1:* Higher than average career self-efficacy beliefs would have a positive effect on career engagement.

*Hypothesis 2:* More than average experienced positive emotions would have a positive effect on career engagement.

*Hypothesis 3:* More than average experienced negative emotions would have a negative effect on career engagement.

*Hypothesis 4:* Higher than average levels of experienced social career support would have a positive effect on career engagement.

*Hypothesis 5:* More than average perceived career barriers would have a negative effect on career engagement.

## Method

### Participants and Procedure

Participants ( $N = 67$ ) were students from a variety of majors who attended one-semester elective university courses at a German university. Their mean age was 22.61 years ( $SD = 2.09$  years; range = 19–30 years), and 42 of them (63%) were women. Of the participants, 28 (42%) were 1st-year students, 19 (28%) were 2nd-year students, and the remaining 20 (30%) were 3rd-year students.

As part of their participation, students were invited to complete a weekly survey over the course of one semester for 13 consecutive weeks. The survey was hosted online on a secure web server, and the scales were administered in random order for each student and at each wave. However, because of differences in individual participation, not every student completed the questionnaire at each wave. Of the theoretically possible  $67 \times 13 = 871$  measurement points across all participants and assessment waves, we collected 521 complete measurement points. On average, we assessed career engagement 9.63 times per person, self-efficacy 9.64 times per person, barriers 9.06 times per person, social support 8.94 times per person, and positive and negative affect 9.63 times per person.

### Measures

*Career engagement.* Engagement in proactive career behaviors was assessed with the Career Engagement Scale (Hirschi, 2011; Hirschi, Freund, & Herrmann, in press), consisting of nine statements. Three describe career management activities in general terms (e.g., “cared for the development of your career”), whereas the other six tap into single career management behaviors in terms of career planning, career self-exploration, environmental career exploration, networking, human capital/skill development, and positioning behavior. For each statement, students were asked to indicate to what extent they have been engaged in this task during the last week. Answers were indicated on a 5-point rating scale ranging from 1 (*not much*) to 5 (*a lot*). A large scale evaluation study supports the scale’s one-factorial structure and discriminant, convergent, and predictive validity in relation to specific career behav-

iors, vocational identity, career self-efficacy, and job satisfaction among samples of German university students and working adults (Hirschi et al., in press). Cronbach's alpha at the 13 measurement occasions in the present sample ranged from .85 to .94 ( $M = .90$ ,  $SD = .03$ ).

*Career self-efficacy beliefs.* We applied the short version of the Occupational Self-Efficacy Scale, developed and validated by Rigotti, Schyns, and Mohr (2008). Students indicated their agreement to six items (e.g., "Whatever comes my way in my work, I can usually handle it") on a 5-point rating scale ranging from 1 (*not at all*) to 5 (*completely*). In their evaluation studies (Rigotti et al., 2008), the authors of the scale reported support for construct validity among large numbers of employees by showing positive relations to job satisfaction, organizational commitment, and job performance. The scale showed good reliability in the present study, with Cronbach's alpha ranging from .72 to .89 ( $M = .83$ ,  $SD = .05$ ).

*Emotions.* Experienced positive and negative emotions were assessed with the Positive and Negative Affect Scale (PANAS; Krohne, Egloff, Kohlmann, & Tausch, 1996; Watson, Clark, & Tellegen, 1988) questionnaire. Students were asked to indicate how often they experienced 10 positive (e.g., attentive, proud) and 10 negative emotions (e.g., hostile, nervous) during the last week on a 5-point rating scale ranging from 1 (*not at all*) to 5 (*very much*). The PANAS is internationally one of the most frequently applied measures of experienced emotions and has received solid support for its construct validity—for example, in relation to depression and anxiety (Crawford & Henry, 2004). In our study, Cronbach's alpha ranged from .80 to .94 ( $M = .89$ ,  $SD = .03$ ) for positive emotions and from .80 to .89 ( $M = .86$ ,  $SD = .03$ ) for negative emotions.

*Perceived social career support.* The amount of perceived social support was assessed with a shortened and adapted four-item version of the University of California, Los Angeles, Social Support Inventory (Schwarzer, Dunkel-Schetter, & Kemeny, 1994). In contrast to the original measure, we focused on career support and did not assess perceived support from distinct sources such as parents, peers, or institutions. In contrast, students were asked how much social support regarding their career development they received during the last week from persons in their environment. They indicated, on a 5-point rating scale ranging from 1 (*never*) to 5 (*very often*), how often people provided emotional (encouragement, listening and showing understanding), informational, and tangible support. The original scale has been frequently applied in research and received support for positive relations with coping in various life domains (e.g., Wrosch & Heckhausen, 1999). The adapted scale was administered to a unique sample of 823 students and showed a reliability of  $\alpha = .82$  and significant correlations (all  $ps < .001$ ) with career decidedness ( $r = .12$ ), career self-efficacy ( $r = .13$ ), career exploration ( $r = .32$ ), and career engagement ( $r = .33$ ). In the present sample, Cronbach's alpha ranged from .64 to .92 ( $M = .86$ ,  $SD = .08$ ).

*Perceived career barriers.* Because no readily available and validated measure of career barriers existed in the German language, we used a deductive item-generation strategy (Hinkin, 1995) and reviewed existing scales measuring career barriers (e.g., Gushue, Clarke, Pantzer, & Scanlan, 2006; Holland, Daiger, & Power, 1980). Because lengthy scales

can result in carelessness among respondents and can cause practical problems in research settings, we aimed to develop a small number of items that would adequately capture the content domain. We adapted six items from existing measures and asked students to indicate to what extent six different factors (external circumstances, family responsibilities, significant others, labor market, general contextual factors, and general economic situation) act as barriers to their career development using a 5-point rating scale ranging from 1 (*not at all*) to 5 (*very much*). To examine the scale's construct validity, we administered it to a unique sample of 816 students. The results showed an internal consistency of  $\alpha = .77$  and support for construct validity as indicated by significant correlations (all  $ps < .01$ ) with career decidedness ( $r = -.26$ ), career self-efficacy ( $r = -.16$ ), and career planning ( $r = -.14$ ). Cronbach's alpha in the present sample ranged from .63 to .84 ( $M = .77$ ,  $SD = .06$ ).

## Results

### Descriptive Statistics

Table 1 shows the means, standard deviations, and zero-order correlations among the variables. The correlations are based on the average scores calculated for every individual (up to 13 measurements per person;  $N = 67$ ) and for all available single measurement occasions ( $N = 521$ ). Most notably, higher career engagement was significantly correlated with more social support, positive emotions, and fewer career barriers across all measurement occasions, and significantly correlated with social support across person averages.

### Hierarchical Linear Regression Model for Analysis of Repeated Measures Data

We used multilevel modeling (Stata's procedure *xtmixed*) for the analysis of the repeated measures data to account for the cluster structure of responses nested within individuals (for a detailed treatment of this

**TABLE 1**  
Means, Standard Deviations, and Zero-Order Correlations  
Among Study Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Gender	0.63						-.16	-.20	.17	-.17	.10	-.10
2. 1 YS	0.42						-.11	.08	-.17	-.04	-.22*	.07
3. 2 YS	0.27						.15	-.21*	.28*	.11	.32**	.05
4. 3 YS	0.30						-.03	.12	-.09	-.06	-.08	-.02
5. CE	20.83	7.92	-.22**	-.04	.06	-.02	—	-.01	.16	.12	.16	.45**
6. SE	23.13	4.44	-.37**	.13**	-.21**	.07	.03	—	-.46**	-.04	-.15	.01
7. PA	32.49	6.70	-.17**	-.01	.07	-.06	.21**	.06	—	-.31**	.16	-.05
8. NA	17.45	6.10	.16**	-.14**	.24**	-.09*	.06	-.17**	-.31**	—	.13	.42**
9. SS	11.66	3.76	-.10*	.00	.01	-.01	.38**	.01	.18**	.16**	—	.11
10. BAR	11.24	3.60	.17**	-.15**	.30**	-.14**	.12**	-.43**	-.09*	.39**	.12**	—

*Note.* Gender coded as 0 for men and 1 for women. Values for Variables 5–10 below the diagonal are scale scores across all measurement points ( $N = 521$ ). Values for Variables 5–10 above the diagonal are scale scores averaged across all individuals ( $N = 67$ ). 1 YS = 1st-year student; 2 YS = 2nd-year student; 3 YS = 3rd-year student; CE = career engagement; SE = self-efficacy; PA = positive affect; NA = negative affect; SS = social support; BAR = barriers.

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



analysis approach, see Rabe-Hesketh & Skrondal, 2008). Our model is a random-intercept, random-coefficient model, which assumes normally distributed random components and Level 1 residuals, given the covariates included in the model. The full model was specified as

$$y_{ij} = \beta_{00} + \beta_{01}X_1 + \dots + \beta_{03}X_3 + \beta_{10}X_4 + \dots + \beta_{60}X_9 + r_0 + r_1 + r_4 + r_6 + \epsilon,$$

where  $\beta_{00}$  is the intercept in career engagement for all 67 participants in Week 1.

At the level of the participants (Level 2; time-constant, person-specific covariates), we included gender and study year as control variables because previous research (McWhirter, 1997; Rogers et al., 2008) has shown that gender can have an effect on social-cognitive career variables such as perceived barriers, self-efficacy beliefs, or social support, and that grade level can affect progress in career development (Rogers et al., 2008). By controlling for those effects, we were able to obtain results corrected for their influence, leading to a more precise prediction of the variables of interest. In the equation,  $\beta_{01}$  is the estimate for the difference in career engagement between female and male participants,  $\beta_{02}$  is the estimate for the difference in career engagement between 2nd- and 1st-year students, and  $\beta_{03}$  is the estimate for the difference in career engagement between 3rd- and 1st-year students.

At the level of the individual responses (Level 1; time-varying, person-specific covariates),  $\beta_{10}$  is the estimate for the effect of the change in career engagement that a single week evokes (time),  $\beta_{20}$  is the estimate for the effect of the change in career engagement that a one-unit increase in self-efficacy evokes,  $\beta_{30}$  is the estimate for the effect of the change in career engagement that a one-unit increase in perceived barriers evokes,  $\beta_{40}$  is the estimate for the effect of the change in career engagement that a one-unit increase in positive affect evokes,  $\beta_{50}$  is the estimate for the effect of the change in career engagement that a one-unit increase in negative affect evokes, and  $\beta_{60}$  is the estimate for the effect of the change in career engagement that a one-unit increase in social support evokes. The covariates self-efficacy, barriers, positive and negative affect, and social support were all mean centered within each individual to provide meaningful parameter estimates with regard to the hypotheses. The covariates all showed meaningful differences between participants and were significantly different from week to week within individuals, as indicated by considerable within-subjects variation.

Table 2 presents the results of this model. At a value of 20.88, the intercept in career engagement in Week 1 represents the average score for male students in their 1st year of study. Female students reported slightly lower career engagement scores than male students did ( $p = .05$ ), and male 2nd-year students reported marginally higher career engagement scores than male 1st-year students did ( $p < .10$ ). There was no statistically significant difference between male 1st- and 3rd-year students. These results show that female and male students differ in their average self-perceived level of career engagement and that students in the 2nd year of study also tentatively tend to report more career engagement.

The parameter estimate of 0.16 for the covariate time indicates that respondents' career engagement rises significantly throughout the semester ( $p < .05$ ). The results also show that higher than average

TABLE 2

## Multilevel Estimates for Predicting Career Engagement

Variable	Parameter	Fixed Effects			Random Effects		
		Est.	SE	<i>p</i>	SD	SE	95% CI
Intercept	$\beta_{00}$	20.88	1.47	.00			
Female	$\beta_{01}$	-2.95	1.53	.05			
2nd-year student	$\beta_{02}$	3.03	1.80	.09			
3rd-year student	$\beta_{03}$	0.96	1.74	.58			
Time <sup>a</sup>	$\beta_{10}$	0.16	0.08	.04			
Self-efficacy <sup>b</sup>	$\beta_{20}$	0.04	0.11	.36 <sup>c</sup>			
Positive affect <sup>b</sup>	$\beta_{40}$	0.25	0.05	.00 <sup>c</sup>			
Negative affect <sup>b</sup>	$\beta_{50}$	0.03	0.06	.31 <sup>c</sup>			
Social support <sup>b</sup>	$\beta_{60}$	0.38	0.12	.00 <sup>c</sup>			
Barriers <sup>b</sup>	$\beta_{30}$	0.07	0.13	.28 <sup>c</sup>			
Intercept	$r_0$				5.32	0.58	[4.30–6.59]
Time	$r_1$				0.34	0.09	[0.20–0.56]
Positive affect	$r_4$				0.17	0.06	[0.09–0.35]
Social support	$r_6$				0.43	0.13	[0.24–0.78]
Within-individual residual	$e$				4.52	0.17	[4.19–4.87]

Note. Est. = estimate; CI = confidence interval.

<sup>a</sup>Time coded as number of weeks minus 1. <sup>b</sup>Variables centered with regard to individual mean.

<sup>c</sup>*p* value halved due to two-tailed test.

self-efficacy beliefs do not lead to more career engagement ( $p = .37$ ), lending no support for Hypothesis 1. Furthermore, an increase in the number of perceived carrier barriers, as well as more experienced negative affect, do not influence career engagement ( $p = .28$  and  $p = .31$ , respectively), refuting Hypotheses 3 and 5, respectively. However, we did find that more experienced positive affect and better than average social support were both positively related to career engagement (both  $ps < .001$ ), supporting Hypotheses 2 and 4, respectively. Apparently, if individuals experience positive affect in a given week that is higher than their baseline, or receive more social support in a given week than they are accustomed to, their self-reported level of career engagement is also higher than usual.

The parameters  $r_0$ ,  $r_1$ ,  $r_4$ , and  $r_6$  represent random variation for the intercept, time, positive affect, and social support, respectively. These parameters indicate that the respective fixed parameter estimates (intercept, time, positive affect, and social support) do not represent all individuals in the sample, suggesting significant variability among individuals, which is supported by the respective confidence intervals not including zero. Adding additional random effects did not lead to an increase in model fit, as checked through likelihood ratio tests. We correlated the predicted values for career engagement at all 521 measurement occasions with the actually reported scores and found a correlation of  $r = .86$  ( $r^2 = .74$ ), which shows a close fit between the two variables, suggesting that the model can be used to accurately predict actual career engagement.

## Discussion

Our study examined whether and how weekly fluctuations in different motivational and social-cognitive variables are related to within-

individual differences in career engagement. The results extend previous research that focused on between-person effects and provide a complementary and microlevel perspective on the phenomenon of self-directed career management.

Our results supported our hypotheses that weekly fluctuations in perceived social support and positive emotions are related to within-individual changes in career engagement. First, on the basis of results founded on between-person effects, we expected that more social support acts as a resource that allows people to more actively engage in career management. Our results advance this point by showing that this finding is also observed at a within-person level. If people received more than average degrees of social support during one week, they were also more likely to be more than usually active in career management during that week. This result supports the importance of the social environment of working (Blustein, 2011) and implies that career theory and intervention practice should pay particular attention to the resources that are available to a person in his or her social environment. Our study suggests that it is not only the general level of social support that is important, but also the small but meaningful changes in received support, which can vary from week to week.

Second, our results also support the importance of positive emotions for active career management by showing that if students experience more positive emotions than usual during a given week, they also increase their level of career engagement during that week. Thus, our study expands previous research by demonstrating that it is not just the general trait of positive affectivity that is important; experienced emotions that might change from week to week are also significant. The results support the broaden-and-build framework (Fredrickson, 2001), which implies that positive emotions broaden thought–action repertoires and build resources that contribute to (career) success (Boehm & Lyubomirsky, 2008). The results are also consistent with the results from Bindl et al. (2011), who showed that a high-activated positive mood promotes career-related proactive goal regulation among university students. Our study extends this result to within-individual changes in career engagement. Hence, positive emotions seem to facilitate taking on activities that enhance one's career resources by more readily undertaking different behaviors of career management than one normally would.

However, several predictions that were based on findings from between-person effects were not supported at the within-person level. First, previous research (e.g., Rogers et al., 2008) demonstrated that self-efficacy beliefs affect career development in many ways and that compared with other people, those with higher levels of self-efficacy beliefs are more likely to engage in different career management activities. However, our study did not find a significant relationship between intraindividual change in self-efficacy and within-individual differences in weekly career engagement.

Second, we expected that perceived career barriers would inhibit career engagement (e.g., Cardoso & Moreira, 2009). Our results did not support this assumption at the within-individual level, showing that the longitudinal approach chosen in the present study adds important insight into this topic. Finally, research on the role of negative affectivity, anxiety, and neuroticism (e.g., Meijers & Wardekker, 2002) suggests

that negative affect has detrimental effects on career development and career management on a between-person level. However, our results did not find a meaningful relationship between experienced negative emotions and weekly levels of career engagement at a within-person level.

The fact that we could not establish meaningful within-person effects for self-efficacy, barriers, and negative emotions implies that it might be the general level of these constructs that affects the generally exhibited level of career management as compared with other people. Conversely, although changes in self-efficacy beliefs, perceived career barriers, or experienced negative emotions occur from week to week within a person, they seem to have no meaningful effect on whether a person engages in more or less career management than he or she usually does. Possibly, positive emotions and social support have more immediate effects on engagement because activated positive emotions (more so than negative emotions) act as “energizers” of proactive behaviors (Bindl et al., 2011) and social support can provide direct and tangible assistance regarding career tasks (Adler & Kwon, 2002). Conversely, given that self-efficacy beliefs and perceived barriers refer to evaluations of personal capability and context, they might thus have less of an immediate effect on overt behavior, yet be more relevant for cognitive tasks such as career planning and decision making (Lent et al., 2000), which would have a more delayed effect on career behaviors.

Future research could investigate the possibility that those variables exert their effects more in the long term, for example, whether a person engages in more or less career engagement over the course of many months or even years compared with other people. The fact that certain, relatively well-established effects on the between-person level could not be replicated on a within-person level supports our argument that it is important to pay attention to both levels of analysis.

### **Limitations**

Several limitations need to be considered when interpreting our results. First, the results are based on a relatively small sample of university students. Because of the practical challenges of diary studies that obtain repeated measures of longitudinal data from study participants, smaller sample sizes are common for this type of analytical approach and the power of our analyses is considerably larger than the power obtained with an equal number of participants in between-subjects designs (cf. Ohly, Sonnentag, Niessen, & Zapf, 2010). Nevertheless, the small sample implies that the generalizability of the presented results needs to be confirmed with other samples and in different contexts, for example, among working adults. Second, because of individual attrition at single assessment waves, we were not able to collect data from every person at every wave. However, our statistical procedure allowed us to include all of the obtained data by using a full information maximum likelihood estimator, an approach that has been shown to yield very accurate parameter estimates (Graham, 2009). A third limitation is that not all measures showed satisfactory levels of internal consistency at each measurement point, although low internal consistency (<.70) was found at only three of the 78 measurement points (a proportion of 4%). Fourth, all measures were obtained by self-reports, which

potentially introduces shared-method variance that might affect the observed relations among the measures. Therefore, if feasible, prospective studies may consider alternative information sources. Finally, although we assessed a number of within-individual variables, future research could assess other theoretically important constructs, such as outcome expectations, for instance, as predictors of career engagement. Moreover, because, to our knowledge, this was the first study to assess within-individual predictors of career engagement, we focused on direct and first-order effects. Elaborating our results, future research could test more complex models, including indirect effects of emotions and social-cognitive variables, as well as the interaction of first- and second-order variables (e.g., moderating gender effects).

### **Career Counseling Implications**

Because our study focused on within-person effects that are particularly relevant in a practical context, the study results have several important implications for career intervention practice. The significant effects of social support and positive emotions suggest that little boosts in social support, as, for example, provided by the counselor or specific career interventions, can have a meaningful and immediate effect on a client's degree of career engagement. For example, supporting the client in developing a social support network and reflecting on available developmental networks with the client during counseling seem useful. Moreover, facilitating the experience of positive emotions during and through career interventions can be an important treatment component that facilitates active engagement in career management. Such interventions might include, for example, using humor and focusing on experienced positive emotions in work and leisure time during a counseling interview. Conversely, the nonsignificant effects of self-efficacy beliefs, perceived barriers, and negative emotions are also important to note. For counseling practice, this result implies that counselors can still rightfully pay attention to the general levels of self-efficacy, perceived barriers, and negative affectivity of a client as they compare with those of other people. However, our results suggest that small changes in those beliefs, perceptions, and affectivity will not result in meaningful short-term changes of career engagement for a given client. Corresponding career interventions might thus more effectively be tailored as developmental-educative interventions that aim to develop those factors in the long term. For example, interventions could let clients observe role models to increase self-efficacy and focus on developing plans and strategies to overcome and/or avoid career barriers to diminish their negative effect. Conversely, focused, short-term, and remedial career interventions might more effectively focus on the immediate increase of experienced social support and the positive emotions of a client.

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