

Hope as a Resource for Self-Directed Career Management: Investigating Mediating Effects on Proactive Career Behaviors and Life and Job Satisfaction

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Abstract Hope is increasingly recognized as an important psychological resource for career development, yet the empirical research on its functioning in this domain is sparse. This paper describes an investigation of how dispositional hope is related to career decidedness, career planning, and career self-efficacy beliefs and whether these more proximal career attitudes mediate the effects of hope on proactive career behaviors, life satisfaction, and job satisfaction. This investigation was conducted using two independent samples of university students ($N = 1,334$) and working professionals ($N = 233$). The results showed that in both samples, hope was significantly related but empirically distinct from career variables. In both samples, hope had a direct effect on proactive career behaviors, partially mediated by more career planning. Hope had significant direct and indirect effects on life satisfaction among students, mediated by the three career development attitudes. Although hope was significantly correlated with job satisfaction among employees, no direct effect of hope was found in the mediation model, but an indirect effect through career decidedness was found. The results suggest that hope is an important resource for proactive career development at different career stages and that the positive relation of hope to life and job satisfaction can partially be attributed to the positive relation between hope and favorable career development attitudes.

Keywords Hope · Career development · Proactivity · Life satisfaction · Job satisfaction

1 Introduction

Hope, the perceived capability to derive pathways to desired goals and motivate oneself via agency thinking to use those pathways (Snyder 2002), is a core construct in the field of positive psychology. Empirical research has shown it to be an important psychological

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resource for positive human development and related to academic achievement, physical health, and psychological adjustment throughout life (Snyder 2002). Scholars in organizational behavior (Luthans and Jensen 2002), vocational psychology, and career counseling (Juntunen and Wettersten 2006) have proposed that hope is also highly relevant for any person engaged in vocational pursuits and is particularly relevant in the face of the intense competition and uncertainty that characterize the present work and career environment. In fact, hope is increasingly positioned as a key construct regarding positive career development as indicated by the topic of several large international conferences (National Career Development Association 2013; LaRIOS 2013) and scholarly publications (e.g., Brown et al. 2013; Niles 2011).

However, despite the emerging recognition of the importance of hope with respect to different life outcomes, empirical research on hope in the context of career development is only beginning to emerge and remains sparse. Research focused mostly on work hope, a domain-specific expression of hope, and showed that it correlates positively with career development variables such as career planning (Kenny et al. 2010), career decision-making self-efficacy beliefs (Juntunen and Wettersten 2006), and vocational identity (Diemer and Blustein 2007; Juntunen and Wettersten 2006). However, the mechanisms of how hope is related to career development have not been clearly addressed, and there is a need for more empirical research on how and to what extent hope affects the career development process. For example, the current career environment calls for increased self-directedness and proactivity in career development to achieve subjective and objective career success (Fuller and Marler 2009). Due to the importance of hope in active coping and proactive goal pursuit (Snyder 2002), it is reasonable to assume that hope is positively related to proactive career behaviors. However, this relation has not been investigated. Moreover, research suggests that hope is positively related to general and work-specific well-being (Luthans et al. 2007). Because career development is an important task for many people, it seems likely that the positive relation of hope to life and job satisfaction can at least partially be attributed to the relation of hope to career development. However, research to date has not investigated such mediation mechanisms. Knowledge regarding the relation of hope to career development is pivotal to empirically support theoretical accounts of the importance of hope in career development and career counseling. A better understanding of the functions of hope in career development may also contribute to enhanced career counseling and human resource development practice due to the emerging appreciation of how hope can be changed in non-clinical populations (Feldman and Dreher 2012).

In the present paper, I propose and empirically evaluate a model that asserts that dispositional hope is significantly related to more proximal attitudinal career development variables in terms of career planning, career decidedness, and career self-efficacy beliefs. In turn, I investigate whether the relation between dispositional hope and proactive career behaviors can be explained by indirect effects acting through these career variables. Moreover, I explore whether the relation of hope to life and job satisfaction can be partially attributed to more favorable career development attitudes that are related to dispositional hope.

To summarize, the aims of the present paper are (1) to investigate the relation of dispositional hope to career planning, career decidedness, and career self-efficacy beliefs; (2) to examine whether dispositional hope is positively related to proactive career behaviors; (3) to explore whether the positive relation between dispositional hope and proactive career behaviors is mediated by career planning, decidedness, and self-efficacy; and (4) to investigate whether a positive relation between hope and life and job satisfaction is mediated by increased career planning, decidedness, and self-efficacy. To address these

questions, I conducted two studies in Germany with two independent samples of people in different stages of their careers: working professionals and university students. The results of these studies make several contributions to this field of research. First, it contributes to the emerging literature in positive psychology and career development on the functions of hope by proposing a model of how and why hope affects career development. Second, it provides new knowledge regarding the antecedents of proactive career behaviors that are of pivotal importance in the context of new careers. Third, it contributes to the literature on career preparation and career adaptability by investigating how career decidedness, planning, and self-efficacy among students and employees are related to dispositional hope. Finally, it contributes to the literature on life and job satisfaction by showing that hope, mediated by more favorable career development attitudes, is an important variable in explaining individual differences in general and work-specific subjective well-being.

2 Hope and Career Development Attitudes

In this paper, I focus on dispositional hope (Snyder et al. 1991), the relatively stable expression of hope over time and situations. Specifically, hope as defined by Snyder (2002), who conceptualized hope in a cognitive way as a motivational state that is characterized by (a) agency (the thoughts that people have regarding their ability to reach their goals) and (b) pathways (the perceived capacity to generate cognitive routes to one's goals). According to hope theory (Snyder 2002), dispositional hope develops based on a person's learning history, starting in childhood, in terms of developmental lessons of correlation and causality and of the self as author of causal chains of events. These learning experiences shape a relatively enduring disposition of hope that forms one's perception of the degree to which one is able to find plausible routes for obtaining important goals, as well as the likelihood that one is motivated and able to reach those goals. These perceptions generalize across situations and time and form the construct of dispositional hope.

Empirical studies have established that dispositional hope is highly correlated with state hope at any given moment (Snyder et al. 1996) and that dispositional hope is related to important life outcomes in academics, health, and psychological adjustment (Snyder 2002; Alarcon et al. 2013). Research has further established that dispositional hope is conceptually and empirically distinct from related constructs such as generalized self-efficacy, self-esteem, and optimism (Alarcon et al. 2013; Snyder 2002) and has confirmed that hope explains unique variance in well-being, above and beyond such related constructs (Magaletta and Oliver 1999). The unique contribution of hope is that it combines agency and pathways thinking. As such, it is more specifically concerned with the actions (i.e., pathways) one can take to achieve positive future outcomes as compared to optimism, self-esteem, or generalized self-efficacy. In addition, it includes the component of agency thinking that is not present in optimism (for further elaborations see Luthans and Jensen 2002; Snyder 2002; Alarcon et al. 2013).

The concept of hope has also gained increased recognition among organizational, career, and vocational scholars. For example, Niles' (2011) hope-centered model of career development states that hope acts as a core factor that affects all stages of the career development process, including achieving self-clarity, goal setting and planning, and implementing and adapting a career. Others have stated that hope represents a psychological resource that is closely related to career adaptability in terms of concern, control, curiosity, and confidence (Savickas and Porfeli 2012). In empirical career studies, researchers have often investigated the more specific construct of work hope rather than

dispositional hope, albeit with different measurement approaches that make it difficult to directly compare the results. Despite this limitation and supporting the theoretical notion that hope is a resource for positive career development, measures of work hope have been shown to correlate positively with career planning (Kenny et al. 2010), career decision-making self-efficacy (Juntunen and Wettersten 2006), vocational identity (Juntunen and Wettersten 2006; Diemer and Blustein 2007), work engagement (Ouweneel et al. 2012), and self-esteem (Yakushko and Sokolova 2010) across different samples of high school and college students as well as other adults.

By focusing on dispositional hope, the present paper extends this research and builds upon the existing literature showing that people build relatively generalizable hope-related thinking patterns that affect various life domains. Specifically, I aim to address how this more general personal disposition of hope is related to more proximal and specific career development outcomes and how career variables mediate its effects on life and job satisfaction. The present manuscript focuses specifically on career planning, career decidedness, and career self-efficacy beliefs as the eminent proximal career-related effects of dispositional hope. Career planning, decision-making, and confidence are important indicators of career adaptability in adulthood (Savickas 1997) and represent fundamental aspects of career preparation among students (Skorikov 2007). Numerous studies have confirmed that those three career development attitudes play an important role in explaining various work and career outcomes, including, for example, job search success (Koen et al. 2010), increased salary, position, and career satisfaction (Abele and Spurk 2009).

Because hope refers to having desired goals, perceiving pathways to those goals, and agency in terms of believing in one's mental energy and capacity to reach these goals (Snyder 2002) the construct of hope is closely related conceptually to planning, decidedness, and self-efficacy. Career planning refers to future-oriented thinking and envisioning possible pathways to career goals. Career decidedness can be seen as representing clarity of self and goals regarding one's career development. Finally, career self-efficacy refers to the belief that one is capable of successfully managing career-related tasks and challenges. A person who is generally more hopeful across different life domains and situations as per high dispositional hope, is theoretically more likely to be better able to use this resource in the career domain, to envision possible career paths through career planning, to develop clear career goals through decision-making, and to believe in his or her capacity to successfully manage career-related tasks. Hence, I propose the following hypothesis:

Hypothesis 1 Dispositional hope is positively related to (a) career planning, (b) career decidedness, and (c) career self-efficacy beliefs.

3 Hope and Proactive Career Behaviors

In addition to planning, decidedness, and self-efficacy, the present manuscript also focuses on proactive career behaviors as another important career outcome of dispositional hope. The current career environment increasingly demands self-directedness in one's career (Stickland 1996), and proactive career behaviors have gained increased importance (Parker and Collins 2010). Empirical research has confirmed that proactive career behaviors, such as networking and career initiative, are positively related to objective and subjective career

success (Fuller and Marler 2009). In the present paper, I propose that hope is an important construct for understanding individual differences in such proactive career behaviors.

Theoretically—and confirmed by empirical research—hope is an important factor in human agency because it increases a person's motivation to pursue goals, to persist in goal pursuit, and to bounce back in the face of failure (resiliency). Hence, hope is important in explaining individual differences in goal attainment (Snyder 2002). I assume that hope can also increase a person's proactivity in career management because it is likely to enhance proactive motivation (Parker et al. 2010). Hope could lead to positive arousal and persistence in pursuit of one's goals (i.e., "energized to" motivation) with regard to pathways thinking and increased confidence that one is capable of reaching one's goals ("can do" motivation) as per agency thinking. In addition, hope is closely connected to meaning because self-reflections about personal goals and one's perceived progress in reaching those goals are pivotal to creating meaning in life and work (Snyder 2002). Hence, hope should also enhance "reason to" proactive motivation (Parker et al. 2010) because goal pursuit is perceived to be more personally meaningful for a high-hope person. In sum, I postulate that dispositional hope is a resource that promotes proactive engagement in vocational pursuits and career management and propose the following hypothesis:

Hypothesis 2 Dispositional hope is positively related to proactive career behaviors.

I more specifically propose that the more general disposition of hope is positively related to proactive career behaviors because it positively affects the more proximal career attitudes of planning, decidedness, and self-efficacy: People who envision possible pathways and career plans through career planning, are clear about their career goals as per high decidedness, and believe in their capacity to face challenges in their careers as of high career self-efficacy should be more likely to engage in proactive career behaviors. I base this assertion on the observation that career decidedness is related to goal clarity and commitment, which research has established motivate the pursuit and achievement of goals (Latham and Locke 2007). Moreover, future-oriented thinking and envisioning possible future work selves through career planning has been shown to enhance proactive motivation and consequentially proactive career behaviors (Strauss et al. 2012). Finally, self-efficacy beliefs form a core component of human agency that is important for performance and the active pursuit of valued goals in a given domain (Bandura 2006). Empirical research has confirmed that career decidedness is positively related to career exploration and career planning (Creed et al. 2007; Hirschi et al. 2011), that career planning is positively related to career exploration (Creed et al. 2009), and that career self-efficacy is positively related to career exploration (Creed et al. 2007) and job search behaviors (Kanfer et al. 2001). Building upon Hypothesis 1 and 2, I therefore postulate the following:

Hypothesis 3 The positive relation between dispositional hope and proactive career behaviors is mediated by (a) higher career decidedness, (b) more career planning, and (c) stronger career self-efficacy beliefs.

4 Career Development as Mediator Between Hope and Life and Job Satisfaction

Supporting the assumption that hope is important for active coping and goal pursuit, previous research has shown that hope is positively related to life satisfaction (Bailey et al. 2007). In the work domain, research has established that hope and the related concept of psychological capital (which combines hope with optimism, self-efficacy, and resilience)

are positively related to job satisfaction (Luthans et al. 2007; Avey et al. 2011). In the present paper, I propose that these effects can be partially explained by the positive relation between hope and career development attitudes.

Because career development and preparation is an important task in emerging adulthood (Super et al. 1996), I expect that students who feel better prepared for their career in terms of more planning, higher decidedness, and stronger self-efficacy beliefs should evaluate their life more positively than students who are less prepared for their careers. This expectation is supported by previous research that has established that career self-efficacy beliefs (Lent et al. 2005), vocational identity achievement (Hirschi 2012), vocational development (Duffy et al. 2011), career adaptability (Hirschi 2009), and career preparation (Skorikov 2007) are positively related to life satisfaction among students.

In the work context, more favorable career attitudes in terms of planning, career decision-making, and confidence have been shown to enhance re-employment quality, due to increased decidedness and planning (Koen et al. 2010; Zikic and Klehe 2006), to be related to higher job satisfaction, due to higher confidence in dealing with challenges at work (Schyns and von Collani 2002), and to higher organizational commitment and job performance, due to increased career decidedness and self-clarity, respectively (Earl and Bright 2007).

Consequently, I assume that the positive relation between dispositional hope and life satisfaction (among students) and job satisfaction (among employees) can partially be explained by the positive relation between hope and favorable career development attitudes.

Hypothesis 4 The positive relation between hope and life and job satisfaction is mediated by (a) more career planning, (b) greater career decidedness, and (c) stronger career self-efficacy beliefs.

5 Overview of Studies

I conducted two studies with two independent samples in different stages of their careers to test the study hypothesis. The first sample consisted of young professionals working in a variety of professions. The second sample consisted of a large group of university students from different majors. I chose to investigate the hypothesis among professionals and university students because both groups are concerned with career development and career management, albeit in very different contexts and at different career stages. By testing the same theoretical model among different populations, the present paper seeks to provide more generalizable results than those reported in studies relying on only one group or the other.

6 Methods

6.1 Participants and Procedure

The *working sample* consisted of university alumni of a German university who had provided their email addresses as students in a questionnaire on career development while in their last year of study. Participants were contacted directly by email ($N = 520$) and invited to complete an online questionnaire. Of the 520 persons contacted, 45 % ($n = 233$)

responded. Of these, 65 % were female. The average age of the respondents was 27 years, with a standard deviation of 4 years. Thirty-nine percent of the respondents had a Bachelor's degree, 50 % had a Master's degree, and the remaining 11 % indicated that they had other degrees or provided no answer. The respondents worked in a diverse range of industries, the largest being business administration (28 %), education (15 %), culture/communication (8 %), and management (8 %).

The *student sample* was recruited at a German university by inviting all students in their second and third years of study (approx. $N = 3,500$) by email to participate in a study on career development. The response rate was 38 % ($n = 1,334$). The sample was 66 % female. The average age was 24 years with a standard deviation of 3 years. The average number of study semesters was 4, with a standard deviation of 2 semesters. The respondents were enrolled in a variety of majors, ranging from mechanical engineering to social work, with the largest groups being in the fields of business/economics (30 %), education (18 %), social/political science (16 %), psychology (11 %), and environmental science (11 %).

As is customary in Germany, race was not assessed in either sample. Participation in a lottery drawing offering two prizes of EUR 450 each were offered as an incentive for both samples.

6.2 Measures

Cronbach's alpha estimates, means, standard deviations, and correlations between measures are reported in Table 1 for each study group. Unless otherwise stated, the measures used a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

6.2.1 Dispositional Hope

I used an existing German translation (Krause 2002) of the adult trait hope scale (Snyder et al. 1991), consisting of eight substantive items (e.g., "I energetically pursue my goals"), four items measuring the agency subscale, and four items measuring the pathways subscale, with an eight-point Likert response format ranging from 1 (*definitely false*) to 8 (*definitely true*). The original scale has been extensively used in empirical studies that have confirmed its reliability and construct validity among diverse samples, for example, in relation to anxiety, depression, positive affect, and coping (Snyder 2002).

6.2.2 Career Planning

Planning was assessed with the German six-item (e.g., "I have a strategy for reaching my career goals") career planning scale proposed by Abele and Wiese (2008), adopted from respective scales proposed by Gould (1979) and Wayne et al. (1999). Abele and Wiese (2008) reported a reliability of $\alpha = .86$ and support for the construct validity of the scale among a large group of university-educated German professionals in terms of medium relationships with subjective and objective career success.

6.2.3 Career Decidedness

I applied the German-language adaptation of the vocational identity scale (Holland et al. 1980; Jörin et al. 2004), using seven items (e.g., "I'm not sure yet which occupations I

Table 1 Summary of bivariate correlations, means, standard deviations, and Cronbach's alphas among the assessed constructs

Measure	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1. Hope	(.87/.87)	.41***	.43***	.69***	.38***	.43**	25.23	1.38
2. Career planning	.30***	(.87/.88)	.70***	.40***	.34***	.37**	20.90	2.29
3. Career decidedness	.38***	.73***	(.82/.82)	.44***	.26***	.48***	26.37	3.24
4. Self-efficacy	.63***	.38***	.45***	(.82/.82)	.25***	.47***	27.08	1.51
5. Proactive career behaviors	.31***	.38***	.30***	.34***	(.88/.90)	.20*	32.03	6.49
6. Satisfaction ^a	.48***	.16***	.28***	.39***	.16***	(.88/.90)	13.92	1.79
<i>M</i>	24.88	19.61	24.52	25.46	27.48	19.19		
<i>SD</i>	3.24	5.34	6.41	4.26	7.91	3.64		

Below diagonal: Student sample $N = 1,334$; *above diagonal working sample, $N = 233$* ; entries in parentheses in diagonal are the Cronbach's alpha reliability coefficients (*left: student sample*/*right: working sample*)

^a Job satisfaction for working sample, life satisfaction for student sample

* $p < .05$; ** $p < .01$; *** $p < .001$

could perform successfully"). Research conducted using the German-language version has reported scale reliabilities between $\alpha = .81$ and $.89$ and has shown that the scale correlates highly with other measures of career decidedness and moderately with career planning among adolescents and college students (Hirschi et al. 2011; Jörin Fux 2006).

6.2.4 Career Self-Efficacy

I used the six-item (e.g., "Whatever comes my way in my job, I can usually handle it") German short version of the occupational self-efficacy scale developed and validated by Rigotti et al. (2008) with a six-point Likert scale from 1 (*not at all true*) to 6 (*completely true*). Rigotti et al. (2008) reported a scale reliability of $\alpha = .84$ and evidence for construct validity among a large group of German employees, with moderate relationships to job satisfaction, organizational commitment, job performance, and job insecurity.

6.2.5 Proactive Career Behaviors

The degree of engagement in proactive career behaviors was assessed with the nine item career engagement scale (Hirschi et al. in press). Three describe career management activities in general terms (e.g., worked to advance one's career), while the other six tap into career management behaviors in terms of career planning, self- and environmental exploration, networking, positioning behavior, and voluntary training. For each statement, participants were asked to indicate to what extent they had been engaged in this task during the last 6 months. Research provided support for the scales reliability and construct validity among students and employees, showing positive relations to measures assessing specific career behaviors (e.g., networking, exploration), job satisfaction, vocational identity, and career self-efficacy beliefs.

6.2.6 Life Satisfaction

Satisfaction with life was assessed with the German-language version of the Satisfaction with Life Scale (SWLS) by Diener et al. (1985). The scale consists of five items (e.g., “The conditions of my life are excellent”). Numerous studies have confirmed the excellent reliability and validity of the scale (e.g., Lucas et al. 1996). The German-language version is similar to the original version developed for use with a group of Swiss adults (Peterson et al. 2007), with an alpha of .84.

6.2.7 Job Satisfaction

I measured job satisfaction with the brief index of affective job satisfaction developed and validated by Thompson and Phua (2012). In contrast to other measures of job satisfaction, this scale is overly affective and minimally cognitive, which corresponds well with theoretical accounts stressing the affective side of job satisfaction. The scale consists of four statements (e.g., “I find real enjoyment in my job”). The authors of the scale provide sound support for internal consistency reliability, temporal stability, convergent and criterion-related validities, and cross-population invariance by nationality, job level, and job type. For example, they report alphas of .81–.87 across different samples, a 3-month re-test reliability of .57, and significant relations to subjective well-being and other job satisfaction measures.

7 Results

7.1 Confirmatory Factor Analysis and Measurement Model

Prior to hypothesis testing, I tested several measurement models, each including hope, career planning, decidedness, and self-efficacy plus one of the criterion variables (i.e., career engagement, life satisfaction, or job satisfaction) with confirmatory factor analysis using *Mplus* 6.11 (Muthén and Muthén 2010) and the maximum likelihood estimator. The first model specified hope, career planning, decidedness, self-efficacy, and career engagement as distinct but correlated latent factors, as indicated by their respective items for the working sample ($\chi^2 = 920.20$, $df = 582$, $p < .001$, $CFI = .91$, $RMSEA = .05$) and the student sample ($\chi^2 = 2,722.09$, $df = 582$, $p < .001$, $CFI = .91$, $RMSEA = .05$). The model showed good fit to the data in both samples. Chi square difference tests further showed that, among both samples, a five-factor model provided a significantly (both $p < .001$, $\Delta RMSEA = .03$, $\Delta SRMR = .03$) better fit than a three-factor model in which all career preparation variables were treated as one factor. The proposed five-factor model also yielded better fit (all $p < .001$, $\Delta RMSEA = .01$ –.02, $M_{\Delta RMSEA} = .017$, $\Delta SRMR = .01$ –.04, $M_{\Delta SRMR} = .023$) than several four-factor models that combined hope with each of the career development attitudes. In summary, the results confirm the empirical distinctness of the three career development attitudes as well as the distinctness between hope and the career variables in both samples. Next, I assessed the measurement models with life satisfaction for the student sample and job satisfaction for the working sample and obtained acceptable fit indices for a five-factor model for the working sample ($\chi^2 = 625.204$, $df = 422$, $p < .001$, $CFI = .94$, $RMSEA = .05$) and the student sample ($\chi^2 = 2,392.13$, $df = 452$, $p < .001$, $CFI = .90$, $RMSEA = .06$). Confirming the scales’ convergent validity in the measurement models in both samples, all standardized factor loadings of the

scale items on their respective higher-order constructs were of considerable size (.41–.89) and highly significant (all $p < .001$). We can thus conclude the empirical distinctness of the assessed constructs and sound measurement models as the basis for further hypothesis testing.

7.2 Test of Hypothesis

7.2.1 Bivariate Relations

The bivariate correlations reported in Table 1 confirm that dispositional hope is positively related to career planning (H1a), career decidedness (H1b), and career self-efficacy (H1c) within both samples. Likewise, the results confirm H2—that dispositional hope is positively related to proactive career behaviors among students and professionals. Finally, the results show significant positive correlations between hope and life satisfaction among students and between hope and job satisfaction among professionals.

7.2.2 Multiple Mediation Models

To test H3—that dispositional hope has an indirect effect on proactive career behaviors mediated by (a) career planning, (b) career decidedness, and (c) career self-efficacy—I calculated two multiple mediation models with the bootstrapping approach and 5,000 bootstrapping samples in *Mplus*, as described by Preacher and Hayes (2008). The multiple mediation bootstrapping approach makes it possible to investigate the total indirect effect as well as the specific indirect effects associated with each assumed mediator. The bootstrapping procedure does not require multivariate normality in the data or normal distributions of the total and specific indirect effects. It provides bias-corrected confidence intervals that can be used to estimate the true population effects of the mediation model (Preacher and Hayes 2008). The tested models with the standardized path coefficients are shown in Fig. 1.

The results of the mediation analysis regarding the relation of hope to proactive career behaviors (Table 2) showed that in the *working sample*, hope exhibited a significant direct effect on proactive career behaviors, controlling the effects of the assessed career development attitudes. Conversely, the sum of the indirect effects was not significant. Although the point estimates were not significant for career planning and self-efficacy, the bootstrapping results did not contain zero, which indicates an indirect effect that is significantly ($p \leq .05$) different from zero. Differences in the two types of analysis are possible because the bootstrapping results are based on bias-corrected multiple resamples of the dataset which makes them the more valid estimate of the true effects as compared to the point estimates (Preacher and Hayes 2008). Based on the bootstrapping results we can thus confirm H3a regarding the mediation effects of career planning. For self-efficacy a negative indirect effect was indicated, contradicting and refuting H3c. However, this might be explained by a suppression effect; self-efficacy showed positive bivariate correlations with hope and career engagement. Because only unique variance is accounted for when testing specific indirect effects, the part of career self-efficacy which is independent of hope, career decidedness, and career planning might represent a more passive, undirected content with one's own abilities that is negatively related to engaging in career behaviors. H3b was rejected because no indirect effect through decidedness was observed in the working sample. In the *student sample*, a significant direct effect of hope on proactive career behaviors, controlling the effects of the assessed career development attitudes, was observed. The results also revealed a significant total indirect effect and significant specific

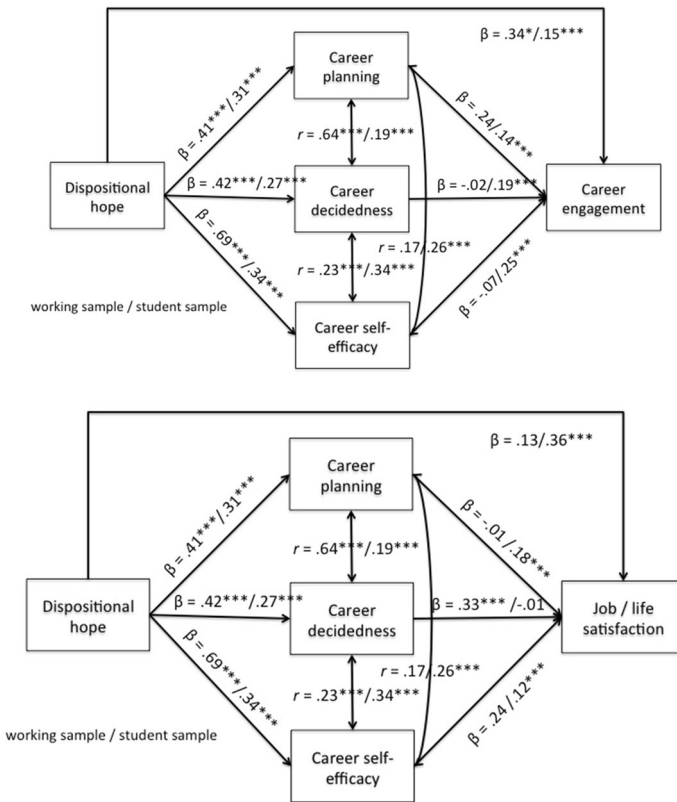


Fig. 1 Note Standardized path coefficients and correlations for the three tested multiple mediation models with the working ($N = 233$) and the student sample ($N = 1,334$). Career engagement was assessed among both samples, job satisfaction only among the working sample and life satisfaction only among the student sample

indirect effects for planning, decidedness, and self-efficacy. These results confirm H3a, H3b, and H3c for the student sample.

Regarding the relation of hope to job satisfaction in the *working sample*, hope was not found to have a significant direct effect on job satisfaction above and beyond the effects of planning, decidedness, and self-efficacy. However, there was a significant indirect effect, mediated by increased career decidedness. No mediation by planning or self-efficacy was observed. The results confirm H4b but refute H4a and H4c for the working sample. In the *student sample*, hope exhibited a significant direct effect on life satisfaction, controlling for the effects of the career variables. The results also revealed a significant indirect effect of hope on life satisfaction, mediated through career planning and career self-efficacy but not career decidedness, confirming H4a and H4c but refuting H4b (Table 3).

8 Discussion

Recent scholarly work in positive psychology, organizational behavior, and career development has suggested that hope is a critical psychological resource related to positive

Table 2 Direct and indirect effects of hope on proactive career behaviors mediated by career planning, decidedness, and self-efficacy beliefs

	Point estimate	S.E.	Bootstrapping 95 % CI		Point estimate	S.E.	Bootstrapping 95 % CI		
			Low	High			Low	High	
Working sample (N = 233)					Student sample (N = 1,334)				
<i>Direct effect</i>									
Hope	0.73*	0.33	0.24	0.73 ^a	0.18***	0.03	0.13	0.19 ^a	
<i>Specific indirect effects</i>									
Planning	0.21	0.12	0.05	0.37 ^a	0.05***	0.01	0.03	0.05 ^a	
Decidedness	-0.02	0.08	-0.09	0.10	0.06***	0.01	0.06	0.07 ^a	
Self-efficacy	-0.10	0.06	-0.15	-0.06 ^a	0.10***	0.01	0.10	0.10 ^a	
<i>Sum of indirect effects</i>									
Hope	0.09	0.21	-0.15	0.21	0.21***	0.01	0.20	0.21 ^a	

^a 95 % CI that does not include zero

* $p < .05$; *** $p < .001$

Table 3 Direct and indirect effects of hope on job and life satisfaction mediated by career planning, decidedness, and self-efficacy beliefs

	Point estimate	S.E.	Bootstrapping 95 % CI		Point estimate	S.E.	Bootstrapping 95 % CI		
			Low	High			Low	High	
Working sample, job satisfaction (N = 233)					Student sample, life satisfaction (N = 1,309)				
<i>Direct effect</i>									
Hope	0.14	0.13	.00	0.27	0.41***	0.03	0.35	0.42 ^a	
<i>Specific indirect effects</i>									
Planning	-0.01	0.07	-0.08	0.03	0.06***	0.01	0.05	0.07 ^a	
Decidedness	0.16***	0.03	0.15	0.17 ^a	-0.00	0.00	-0.01	0.00	
Self-efficacy	0.19	0.12	-0.03	0.28	0.06***	0.01	0.04	0.05 ^a	
<i>Sum of indirect effects</i>									
Hope	0.34***	0.10	0.18	0.44 ^a	0.10***	0.01	0.09	0.12 ^a	

^a 95 % CI that does not include zero

*** $p < .001$

human development in various life domains, including vocational pursuits. The research described in this paper was conducted to expand the body of knowledge in this area by investigating, using a working sample and a student sample, whether and how dispositional hope is related to career development in terms of important career development attitudes among students and professionals (i.e., career planning, decidedness, and self-efficacy beliefs) and whether these career variables mediate the relation of hope to proactive career behaviors and life and job satisfaction.

One advantage of the present study is that two distinct samples in different career stages were investigated. This provides the opportunity to conduct cross-validation of obtained results as well as establishing boundary conditions. The results of the study showed that

among both university students and young professionals, dispositional hope is significantly related to but empirically distinct from career planning, decidedness, and self-efficacy beliefs. These results enhance the current literature by showing that not only different measures of work hope (Kenny et al. 2010; Juntunen and Wettersten 2006; Diemer and Blustein 2007) but also a more general disposition of hope is related to important career attitudes. These results also contribute to the literature on career adaptability among adults (Savickas 1997) and career preparation of students (Skorikov 2007) by showing that dispositional hope should be considered an important resource related to higher indicators of career adaptability and preparation.

Further advancing the current literature, the present study showed that hope is related not only to career attitudes but also to proactive career behaviors among students and employees. Specifically, within both samples, hope had a significant direct effect on proactive career behaviors, above and beyond career decidedness, planning, and self-efficacy beliefs. As I was also able to show, within both samples, the relation of hope to proactive career behaviors can be partially explained by the positive relation of hope to increased career planning. Given the importance of proactivity in the current work and career environment (Parker and Collins 2010), this finding has important implications for the larger literature on self-directed career management and new careers (Arnold and Jackson 1997). The present study suggests that dispositional hope is an important resource that motivates students and employees to proactively engage in shaping their careers, partially due to increased concern for their professional future.

While the two samples have several similarities, the results of the multiple mediation analyses also revealed that the mechanisms linking hope with proactive career behaviors are distinct between students and employees, indicating some important boundary conditions regarding the functions of dispositional hope in the career domain. First, when examining the bias-corrected 95 % confidence interval for the estimated population effects, the results imply that dispositional hope has a stronger direct effect on proactive career behaviors among professionals than among students. Conversely, among students as compared to the working sample, I found clearer support for indirect effects through planning, decidedness, and self-efficacy, although the confidence intervals do marginally overlap between the two groups. Being hopeful that one can identify a plausible route to one's goals, as well as alternative routes if one approach should fail, and believing in one's capacity and motivation to pursue those pathways seem to be motivating resources for students that enhance their career preparation and therefore encourage their engagement in proactive career behaviors. Conversely, among employees, the assessed career attitudes seem to contribute less to proactive career management behaviors. Possibly, environmental and organizational constraints, such as available career development opportunities in the organization or the labor market, provide strong boundary conditions on the available paths for career development. As such, a more general disposition of hope might be more important than specific career attitudes. Because students are unconstrained by those realities and are faced with many potential career options and choices, more specific attitudes of career preparation that bring focus to one's career development might be more important for this group than the direct effects of dispositional hope. Another possible explanation is that career preparation and career engagement are pivotal topics for all university students in order to prepare for the transition to work while for the group of young professionals the importance of career preparation and engagement might depend on whether they are in a transitional job or starting to settle in a new job. Hence, attitudes reflecting career preparation would have a stronger effect on career engagement in the student sample as compared to the working sample. The results therefore advance the

current literature on hope and career development by suggesting different mechanisms of hope among students versus employees. I encourage future research to more closely examine the possibility of different mechanisms of hope at different career stages.

The study also investigated whether hope is related to life and job satisfaction and whether these relationships can be explained by indirect effects through career development attitudes. First, I was able to show that hope is significantly related to job satisfaction among professionals. This advances the literature in important ways. First, although Luthans and Jensen (2002) proposed hope as an important construct for personal and organizational career outcomes several years ago, subsequent empirical research linking hope and job satisfaction (arguably one of the most important job attitudes) has remained very sparse and has mostly focused on psychological capital (Avey et al. 2011), a conceptually and empirically more ambiguous construct that combines hope with optimism, resilience, and self-efficacy. Second, going beyond proposing mere correlation, the present study advances the literature by proposing a plausible mechanism that can explain the relation of hope to job satisfaction. Specifically, I found that hope is no longer related to job satisfaction once more specific career attitudes are taken into account. Even more specifically, I found that increased career decidedness mediated the effects of hope on job satisfaction. This result implies that employees who are disposed to think of possible pathways to their goals and have confidence in pursuing those routes are more likely to also have a clear vision of who they are and where they want to go professionally. This, in turn, is related to satisfaction with their current job, possibly because it correlates with increased self-clarity. The latter finding is consistent with the results of a study by Earl and Bright (2007) who found a positive correlation between career decidedness, self-clarity, career choice importance, and job satisfaction among Australian graduate employees.

In the student sample, I was able to verify previous research that found positive relations between hope and life satisfaction (Bailey et al. 2007). This confirms the importance of dispositional hope for psychological well-being. Advancing extant research, the present study was able to show that this relation can be partially attributed to the positive relation of hope with increased career preparation, specifically, more career planning and stronger career self-efficacy beliefs. These findings support theoretical accounts that career preparation is an important developmental task in emerging adulthood (Super et al. 1996) and that students who are better prepared for their future careers experience greater well-being. However, apart from these indirect effects, dispositional hope was found to be positively related with life satisfaction above and beyond the effects of the assessed career development attitudes. This supports the notion that hope is a construct with broad effects that might increase life satisfaction via multiple pathways.

When comparing the different effects of dispositional hope on job versus life satisfaction, the results of the bias-corrected 95 % confidence interval for the estimated population effects suggest that the direct effect on life satisfaction is significantly higher than that on job satisfaction. In contrast, the indirect effect through career planning, decidedness, and self-efficacy is stronger for job satisfaction as compared to life satisfaction. This is a meaningful result because it shows that the more general disposition of hope is more directly related to more general (i.e., life) outcomes while its effects on domain-specific (e.g., career, job) outcomes is mediated by more domain-specific variables. This is in line with the bandwidth-fidelity argument (Cronbach 1984) and implies that researchers interested in the functions of hope in the career domain need to take more specific mediators into account in order to better explain specific career and work outcomes.

8.1 Limitations and Conclusions

One limitation of this study is that only cross-sectional data were obtained. The proposed theoretical model is in line with the general assumption that more general dispositions affect more specific attitudes which in turn affect specific behaviors (McAdams and Pals 2006; McCrae et al. 2000). However, the potential mechanism linking hope and career development can only be inferred and it is not possible to make any causal claims based on the data obtained. In fact, it might be possible that job satisfaction and life satisfaction increase a sense of hope because they can instill a sense of competence and control in one's job and life more generally. Likewise, actively engaging in career planning and decision making could increase a sense of hope because those career preparation activities can foster a clearer vision of future pathways and increase confidence to achieve one's goals. Longitudinal research would be needed to further establish the underlying processes proposed herein and to investigate the issue of temporal precedence of hope, career development, and well-being. Moreover, all data were self-reported, including the degree of executed proactive career behaviors. This implies that common source and method bias might distort the relationships identified among the variables. Further, the mediating effects were rather weak, which suggests that other pathways linking hope with proactive career behaviors and with life and job satisfaction should be explored in future research. For example, the study did not address social and environmental factors, such as increased social support or developmental networks, that might explain how and why hope is related to career development and well-being. Finally, the working sample was much smaller than the student sample which means that detecting significant effects was more difficult due to larger margins of error in the estimates of this group. Moreover, this also means that the power of the analyses to detect significant effects was weaker in the working sample. Hence some differences between the results obtained from the two samples might be explained by the different power of the analyses within the two samples (e.g., that the sum of indirect effects from hope to proactive career behaviors was significant in the student sample but not in the working sample or that the direct effect of hope on job satisfaction was not significant in the working sample but the direct effect on life satisfaction was significant in the student sample).

Despite those limitations, this study provided important new insights into the relation of dispositional hope to career development and well-being across career stages. In summary, the results confirm that researchers and practitioners in career development can regard hope as a meaningful concept and resource for students and employees. However, the present study also cautions that the mechanisms of how hope is related to career development and well-being might be different at different career stages, which warrants future inquiry and nuanced approaches in practice.

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References

- Abele, A. E., & Spurk, D. (2009). The longitudinal impact of self-efficacy and career goals on objective and subjective career success. *Journal of Vocational Behavior*, 74(1), 53–62. doi:[10.1016/j.jvb.2008.10.005](https://doi.org/10.1016/j.jvb.2008.10.005).

- Abele, A. E., & Wiese, B. S. (2008). The nomological network of self-management strategies and career success. *Journal of Occupational and Organizational Psychology*, 81(4), 733–749. doi:10.1348/096317907X256726.
- Alarcon, G. M., Bowling, N. A., & Khazon, S. (2013). Great expectations: A meta-analytic examination of optimism and hope. *Personality and Individual Differences*, 54(7), 821–827. doi:10.1016/j.paid.2012.12.004.
- Arnold, J., & Jackson, C. (1997). The new career: Issues and challenges. *British Journal of Guidance and Counselling*, 25, 427–434. doi:10.1080/03069889708253821.
- Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human resource development quarterly*, 22(2), 127–152.
- Bailey, T. C., Eng, W., Frisch, M. B., & Snyder, C. R. (2007). Hope and optimism as related to life satisfaction. *The Journal of Positive Psychology*, 2(3), 168–175. doi:10.1080/17439760701409546.
- Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science*, 1(2), 164–180. doi:10.1111/j.1745-6916.2006.00011.x.
- Brown, S. D., Lamp, K., Telander, K. J., & Hacker, J. (2013). Career development as prevention: Toward a social cognitive model of vocational hope. In E. M. Vera (Ed.), *The Oxford handbook of prevention in counseling psychology* (pp. 374–392). Oxford: Oxford University Press.
- Creed, P. A., Fallon, T., & Hood, M. (2009). The relationship between career adaptability, person and situation variables, and career concerns in young adults. *Journal of Vocational Behavior*, 74(2), 219–229. doi:10.1016/j.jvb.2008.12.004.
- Creed, P. A., Patton, W., & Prideaux, L. (2007). Predicting change over time in career planning and career exploration for high school students. *Journal of Adolescence*, 30, 377–392. doi:10.1016/j.adolescence.2006.04.003.
- Cronbach, L. J. (1984). *Essentials of psychological testing* (4th ed.). New York, NY: Harper & Row.
- Diemer, M. A., & Blustein, D. L. (2007). Vocational hope and vocational identity: Urban adolescents' career development. *Journal of Career Assessment*, 15(1), 98–118. doi:10.1177/1069072706294528.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. doi:10.1207/s15327752jpa4901_13.
- Duffy, R. D., Manuel, R. S., Borges, N. J., & Bott, E. (2011). Calling, vocational development, and well being: A longitudinal study of medical students. *Journal of Vocational Behavior*, 79(2), 361–366. doi:10.1016/j.jvb.2011.03.023.
- Earl, J. K., & Bright, J. E. H. (2007). The relationship between career decision status and important work outcomes. *Journal of Vocational Behavior*, 71(2), 233–246. doi:10.1016/j.jvb.2007.05.003.
- Feldman, D., & Dreher, D. (2012). Can hope be changed in 90 minutes? Testing the efficacy of a single-session goal-pursuit intervention for college students. *Journal of Happiness Studies*, 13(4), 745–759. doi:10.1007/s10902-011-9292-4.
- Fuller, B., Jr., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the proactive personality literature. *Journal of Vocational Behavior*, 75(3), 329–345. doi:10.1016/j.jvb.2009.05.008.
- Gould, S. (1979). Characteristics of career planners in upwardly mobile occupations. *The Academy of Management Journal*, 22(3), 539–550.
- Hirschi, A. (2009). Career adaptability development in adolescence: Multiple predictors and effect on sense of power and life satisfaction. *Journal of Vocational Behavior*, 74(2), 145–155. doi:10.1016/j.jvb.2009.01.002.
- Hirschi, A. (2012). Vocational identity trajectories: Differences in personality and development of well-being. *European Journal of Personality*, 26(1), 2–12. doi:10.1002/per.812.
- Hirschi, A., Freund, P. A., & Herrmann, A. (in press). The career engagement scale: Development and validation of a measure for proactive career behaviors. *Journal of Career Assessment*. doi:10.1177/1069072713514813.
- Hirschi, A., Niles, S. G., & Akos, P. (2011). Engagement in adolescent career preparation: Social support, personality and the development of choice decidedness and congruence. *Journal of Adolescence*, 34(1), 173–182. doi:10.1016/j.adolescence.2009.12.009.
- Holland, J. L., Daiger, D. C., & Power, P. G. (1980). *My vocational situation*. Palo Alto, CA: Consulting Psychologists Press.
- Jörin Fux, S. (2006). *Persönlichkeit und Berufstätigkeit [Personality and Work]*. Göttingen: Cuviller Verlag.
- Jörin, S., Stoll, F., Bergmann, C., & Eder, D. (2004). *Explorix®-das Werkzeug zur Berufswahl und Laufbahnplanung [Explorix—the tool for career choice and career planning]*. Berne: Hans Huber.
- Juntunen, C. L., & Wettersten, K. B. (2006). Work hope: Development and initial validation of a measure. *Journal of Counseling Psychology*, 53(1), 94–106. doi:10.1037/0022-0167.53.1.94.

- Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology, 86*(5), 837–855. doi:[10.1037/0021-9010.86.5.837](https://doi.org/10.1037/0021-9010.86.5.837).
- Kenny, M. E., Walsh-Blair, L. Y., Blustein, D. L., Bempechat, J., & Seltzer, J. (2010). Achievement motivation among urban adolescents: Work hope, autonomy support, and achievement-related beliefs. *Journal of Vocational Behavior, 77*(2), 205–212. doi:[10.1016/j.jvb.2010.02.005](https://doi.org/10.1016/j.jvb.2010.02.005).
- Koen, J., Klehe, U.-C., Van Vianen, A. E. M., Zikic, J., & Nauta, A. (2010). Job-search strategies and reemployment quality: The impact of career adaptability. *Journal of Vocational Behavior, 77*(1), 126–139. doi:[10.1016/j.jvb.2010.02.004](https://doi.org/10.1016/j.jvb.2010.02.004).
- Krause, S. (2002). *Differentialdiagnostische Untersuchungen zur Revision einer deutschen Übersetzung der HOPE-Skala von R.Snyder [Differential diagnostic investigation of a revision of a German language translation of the HOPE-scale by R.Snyder]*. Leipzig: University of Leipzig.
- LaRIOS (2013). *International conference: Life design and career counseling: Building hope and resilience*. Padova, Italy.
- Latham, G. P., & Locke, E. A. (2007). New developments in and directions for goal-setting research. *European Psychologist, 12*(4), 290–300. doi:[10.1027/1016-9040.12.4.290](https://doi.org/10.1027/1016-9040.12.4.290).
- Lent, R. W., Singley, D., Sheu, H.-B., Gainor, K. A., Brenner, B. R., Treistman, D., et al. (2005). Social cognitive predictors of domain and life satisfaction: Exploring the theoretical precursors of subjective well-being. *Journal of Counseling Psychology, 52*, 429–442. doi:[10.1037/0022-0167.52.3.429](https://doi.org/10.1037/0022-0167.52.3.429).
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology Quarterly, 71*, 616–628. doi:[10.1037/0022-3514.71.3.616](https://doi.org/10.1037/0022-3514.71.3.616).
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*(3), 541–572. doi:[10.1111/j.1744-6570.2007.00083.x](https://doi.org/10.1111/j.1744-6570.2007.00083.x).
- Luthans, F., & Jensen, S. M. (2002). Hope: A new positive strength for human resource development. *Human Resource Development Review, 1*(3), 304–322. doi:[10.1177/1534484302013003](https://doi.org/10.1177/1534484302013003).
- Magaletta, P. R., & Oliver, J. M. (1999). The hope construct, will, and ways: Their relations with self-efficacy, optimism, and general well-being. *Journal of Clinical Psychology, 55*(5), 539–551. doi:[10.1002/\(sici\)1097-4679\(199905\)55:5<539:aid-jclp2>3.0.co;2-g](https://doi.org/10.1002/(sici)1097-4679(199905)55:5<539:aid-jclp2>3.0.co;2-g).
- McAdams, D. P., & Pals, J. L. (2006). A new big five: Fundamental principles for an integrative science of personality. *American Psychologist, 61*(3), 204–217. doi:[10.1037/0003-066x.61.3.204](https://doi.org/10.1037/0003-066x.61.3.204).
- McCrae, R. R., Costa, P. T., Ostendorf, F., Angleitner, A., Hrebickova, M., Avia, M. D., et al. (2000). Nature over nurture: Temperament, personality, and life span development. *Journal of Personality and Social Psychology, 78*(1), 173–186. doi:[10.1037/0022-3514.78.1.173](https://doi.org/10.1037/0022-3514.78.1.173).
- Muthén, L. K., & Muthén, B. O. (2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Authors.
- National Career Development Association (2013). *Annual conference: Celebrating 100 years of career development: Creating hope, social justice and legacy*. Boston, MA.
- Niles, S. G. (2011). Career flow: A hope-centered model of career development. *Journal of Employment Counseling, 48*(4), 173–175. doi:[10.1002/j.2161-1920.2011.tb01107.x](https://doi.org/10.1002/j.2161-1920.2011.tb01107.x).
- Ouweneel, E., Le Blanc, P. M., Schaufeli, W. B., & van Wijhe, C. I. (2012). Good morning, good day: A diary study on positive emotions, hope, and work engagement. *Human Relations, 65*(9), 1129–1154. doi:[10.1177/0018726711429382](https://doi.org/10.1177/0018726711429382).
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management, 36*(4), 827–856. doi:[10.1177/0149206310363732](https://doi.org/10.1177/0149206310363732).
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management, 36*(3), 633–662. doi:[10.1177/0149206308321554](https://doi.org/10.1177/0149206308321554).
- Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. P. (2007). Strengths of character, orientations to happiness, and life satisfaction. *The Journal of Positive Psychology, 2*(3), 149–156. doi:[10.1080/17439760701228938](https://doi.org/10.1080/17439760701228938).
- Preacher, K., & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891. doi:[10.3758/brm.40.3.879](https://doi.org/10.3758/brm.40.3.879).
- Rigotti, T., Schyns, B., & Mohr, G. (2008). A short version of the Occupational Self-Efficacy Scale: Structural and construct validity across five countries. *Journal of Career Assessment, 16*(2), 238–255. doi:[10.1177/1069072707305763](https://doi.org/10.1177/1069072707305763).
- Savickas, M. L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *Career Development Quarterly, 45*, 247–259.
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior, 80*(3), 661–673. doi:[10.1016/j.jvb.2012.01.011](https://doi.org/10.1016/j.jvb.2012.01.011).

- Schyns, B., & von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *European Journal of Work and Organizational Psychology, 11*(2), 219–241. doi:[10.1080/13594320244000148](https://doi.org/10.1080/13594320244000148).
- Skorikov, V. B. (2007). Continuity in adolescent career preparation and its effects on adjustment. *Journal of Vocational Behavior, 70*(1), 8–24. doi:[10.1016/j.jvb.2006.04.007](https://doi.org/10.1016/j.jvb.2006.04.007).
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*(4), 249–275.
- Snyder, C., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*(4), 570–585. doi:[10.1037/0022-3514.60.4.570](https://doi.org/10.1037/0022-3514.60.4.570).
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology, 70*(2), 321–335. doi:[10.1037//0022-3514.70.2.321](https://doi.org/10.1037//0022-3514.70.2.321).
- Stickland, R. (1996). Career self-management—Can we live without it? *European Journal of Work and Organizational Psychology, 5*(4), 583–596. doi:[10.1080/13594329608414881](https://doi.org/10.1080/13594329608414881).
- Strauss, K., Griffin, M. A., & Parker, S. K. (2012). Future work selves: How salient hoped-for identities motivate proactive career behaviors. *Journal of Applied Psychology, 97*(3), 580–598. doi:[10.1037/a0026423](https://doi.org/10.1037/a0026423).
- Super, D. E., Savickas, M. L., & Super, C. M. (1996). The life-span, life-space approach to careers. In D. Brown & L. Brooks (Eds.), *Career choice and development*. San Francisco, CA: Jossey-Bass.
- Thompson, E. R., & Phua, F. T. T. (2012). A brief index of affective job satisfaction. *Group & Organization Management, 37*(3), 275–307. doi:[10.1177/1059601111434201](https://doi.org/10.1177/1059601111434201).
- Wayne, S. J., Liden, R. C., Kraimer, M. L., & Graf, I. K. (1999). The role of human capital, motivation and supervisor sponsorship in predicting career success. *Journal of Organizational Behavior, 20*(5), 577–595. doi:[10.1002/\(sici\)1099-1379\(199909\)20:5<577:aid-job958>3.0.co;2-0](https://doi.org/10.1002/(sici)1099-1379(199909)20:5<577:aid-job958>3.0.co;2-0).
- Yakushko, O., & Sokolova, O. (2010). Work hope and influences of the career development among Ukrainian college students. *Journal of Career Development, 36*(4), 310–323. doi:[10.1177/0894845309345670](https://doi.org/10.1177/0894845309345670).
- Zikic, J., & Klehe, U.-C. (2006). Job loss as a blessing in disguise: The role of career exploration and career planning in predicting reemployment quality. *Journal of Vocational Behavior, 69*(3), 391–409. doi:[10.1016/j.jvb.2006.05.007](https://doi.org/10.1016/j.jvb.2006.05.007).