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Career adaptability and career entrenchment

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ABSTRACT

Career adaptability constitutes a resource that can help employees to effectively manage career changes and challenges. The goal of this study was to investigate the relationship between the two higher-order constructs of career adaptability and career entrenchment (i.e., the perceived inability and/or unwillingness to pursue new career opportunities), as well as relationships among the dimensions of career adaptability and career entrenchment. We hypothesized a negative relationship between overall career adaptability and career entrenchment, and more differentiated associations among their dimensions. Data for this study came from 404 employees in Brazil. Results of structural equation modeling showed that overall career adaptability weakly negatively predicted overall career entrenchment (standardized effect = $-.13$), after controlling for age, gender, education, and job tenure. More differentiated findings emerged at the dimension level. Future research should examine the mechanisms and boundary conditions of the relationship between career adaptability and career entrenchment.

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1. Introduction

In times of increasingly diverse, fragmented, and global careers, the abilities to adapt and to navigate one's own development in the work and occupational context have become important concepts (Arthur, 1994; Biemann, Zacher, & Feldman, 2012; Raabe, Frese, & Beehr, 2007). *Career adaptability* constitutes a psychosocial resource that can help employees to effectively manage career changes and challenges, and thus facilitates employees' fit with their work environment (Goodman, 1994; Savickas, 1997). Research has shown that career adaptability is positively related to career success, job performance evaluations, and well-being (Guan et al., 2013; Hirschi, 2009; Koen, Klehe, & Van Vianen, 2012; Maggiori, Johnston, Krings, Massoudi, & Rossier, 2013; Ohme & Zacher, 2015; Zacher, 2014a; Zacher & Griffin, 2015).

Recent research on career adaptability has been facilitated by the development of the Career Adapt-Abilities Scale (CAAS), which is a measure to assess the higher-order construct of career adaptability and its four dimensions: concern, control, curiosity, and confidence (Savickas & Porfeli, 2012). *Concern* involves being future oriented and anticipating new career tasks; *control* implicates taking responsibility for one's own development and work environment; *curiosity* entails the exploration of future career opportunities; finally, *confidence* means that employees believe that they can realize their career goals, solve problems, and overcome obstacles (Savickas & Porfeli, 2012).

Career adaptability is conceptualized as a superordinate multidimensional construct, because the higher-order factor influences its first-order dimensions which, in turn, are measured in a reflective way using manifest indicators (Edwards, 2001). The goal of the current study was to contribute to the ongoing validation of the CAAS by examining the relationship between career adaptability and

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career entrenchment, which is also a higher-order, multidimensional, and career-related construct. We focus on the association between career entrenchment and career adaptability in this study because the possibility that employees' career adaptability is negatively related to their perceptions of career immobility has so far not received attention in the literature. In the following, we first define the construct of career entrenchment before developing our hypothesis on the relationship between overall career adaptability and career entrenchment, as well as hypotheses on more differentiated relationships among the dimensions of career adaptability and career entrenchment. We then report and discuss the methods and results of a study with 404 employees from Brazil that was designed to test our hypotheses.

2. Career entrenchment

Career entrenchment has been defined as employees' feelings of "immobility resulting from substantial economic and psychological investments in a career that make change difficult" (Carson, Carson, Phillips, & Roe, 1996, p. 274). The concept consists of three dimensions: perceived career investments, limited career alternatives, and emotional costs. *Career investments* involve employees' beliefs that, over time, they have invested substantial amounts of time, money, and effort (e.g., by participating in training) in their current careers, and that they would lose these accrued investments, or substantially reduce their worth, if they changed careers (Carson, Carson, & Bedeian, 1995). Employees may also feel that they risk losing accumulated benefits such as a high income and a certain status in their organization. Carson et al. (1995) defined *limited career alternatives* as employees' perceptions of the unavailability of new career opportunities, and *emotional costs* as the expected socio-emotional risks associated with the pursuit of a new career, such as the disruption of friendships with coworkers and loss of well-established professional contacts and networks (see also Carson & Carson, 1997).

Career entrenchment has been characterized as a form of "arrested career development" (Carson et al., 1996, p. 273) that may not only lead to negative consequences, but potentially also to positive outcomes. On the one hand, career entrenchment can lead to occupational strain and poor well-being, because entrenched employees may overlearn their occupation and feel bored on the job (Carson et al., 1995). Those who feel both entrenched and dissatisfied with their job become "entrapped" (Carson et al., 1996). On the other hand, Carson et al. (1995) suggested that many entrenched employees may be quite satisfied, involved in their jobs, and committed to their careers due to the extrinsic rewards they receive for remaining in their careers ("contented immobiles"; Carson et al., 1996). However, some entrenched employees may decide to proactively improve their situation by asking for and creating new challenges at work ("voice"), passively wait for the situation to improve ("loyalty"), focus on non-work activities ("neglect"), or – if the previous options do not improve their situation – they may eventually leave their stalled careers ("exit;" Carson & Carson, 1997).

Career entrenchment is conceptually related to the constructs of occupational commitment and occupational embeddedness. Employees with high levels of occupational commitment stay in their occupation because they want to (affective commitment), ought to (normative commitment), or need to (continuance commitment; Allen & Meyer, 1996; Meyer, Allen, & Smith, 1993). Continuance commitment further consists of two dimensions called *high personal sacrifice* and *few employment alternatives* (Allen & Meyer, 1996; McGee & Ford, 1987). Blau (2001a, 2001b) pointed out that the former of these dimensions is conceptually similar to the *career investments* and *emotional costs* dimensions of career entrenchment, whereas the latter overlaps with the career entrenchment dimension *limited career alternatives*. We decided to focus on career entrenchment instead of continuance commitment in this study, because the career entrenchment concept distinguishes between career investments and potential emotional costs of leaving a career and therefore allows for a more differentiated perspective on these career issues than continuance commitment (Bedeian, 2002), and can help to better understand behaviors related to career adaptability, such as managing changes and challenges.

Ng and Feldman (2007) defined *occupational embeddedness* as "the totality of forces (fit, links, and sacrifices) that keep people in their current occupations" (p. 336). Fit refers to the compatibility between employees' abilities and needs and their occupational demands and supplies at different points of the working lifespan (Zacher, Feldman, & Schulz, 2014). Links involve employees' relationships with other people in the occupation, and sacrifices refers to the losses employees would experience if they left their occupation (Ng & Feldman, 2007). Occupational embeddedness differs from career entrenchment in that it is restricted to factors residing within an occupation and does not involve employees' perceptions of career alternatives (Ng & Feldman, 2009). While perceptions of fit and links are unique to occupational embeddedness, the *sacrifices* dimension of occupational embeddedness is similar to the *career investments* and *emotional costs* dimensions of career entrenchment. We decided to include career entrenchment instead of occupational embeddedness in this study because we were interested in examining the association between career adaptability and another career-focused rather than an occupation-focused construct. In the following sections, we first explain why we expect overall career adaptability to be negatively related to overall career entrenchment, followed by a discussion of more differentiated links among the constructs and their dimensions.

3. Relationship between overall career adaptability and career entrenchment

We expect that the higher-order career adaptability construct is negatively related to overall career entrenchment for three reasons. First, employees with high levels of career adaptability should be less likely to feel entrenched in their careers, because their career adapt-abilities should enhance their general capability, willingness, and openness to change careers. Moreover, high levels of career adaptability should enable and motivate employees to make more risky career decisions that involve relinquishing investments and status benefits that have accumulated in their current careers over time (Brown, Bimrose, Barnes, & Hughes, 2012). In support of these assumptions, research has shown that career adaptability is positively related to openness to new experiences and proactivity (Rossier, Zecca, Stauffer, Maggiori, & Dauwalder, 2012; Tolentino, Sedoglavich, Lu, Garcia, & Restubog, 2014b; Tolentino et al., 2014a;

van Vianen, Klehe, Koen, & Dries, 2012; Zacher, 2014a). Employees with high career adaptability are also more likely to invest energies in scanning their environment for possible career options which, in turn, should reduce their career entrenchment (Carson et al., 1995). Consistently, research has shown that career adaptability is positively associated with job search self-efficacy and career optimism (Guan et al., 2013; Tolentino et al., 2014a, 2014b).

Second, employees with high career adaptability possess more psychosocial resources to pursue new career options, such as starting their own business (Tolentino et al., 2014a, 2014b; Zacher, Biemann, Gielnik, & Frese, 2012). Carson et al. (1995) argued that career entrenchment should be lower among those employees who "...have chosen to create new career paths. Those with sufficient resources have often started their own organizations, moved to entrepreneurial enterprises..., or returned to school to pursue training..." (p. 302). Research has shown that career adaptability is positively related to relevant psychological resources such as emotional stability and core self-evaluations (Zacher, 2014a). These resources should, in turn, reduce employees' career entrenchment. For instance, Blau (2001a) showed that employees' control beliefs were negatively related to employees' perceptions of limited career alternatives, but not significantly related to perceptions of accumulated costs. Interestingly, Blau (2001a) suggested that "Measuring 'occupationally portable' meta-competencies, such as adaptability and self-management..., could have allowed for explaining greater variance in limited alternatives and accumulated costs" (p. 91).

Finally, we expect that employees with high career adaptability should be less worried about the possible social stigma and status loss associated with leaving their entrenched careers and giving up occupational memberships and associated identities (Carson et al., 1995). Moreover, highly adaptable employees should be less concerned about future employability and future earning potential because they believe in their career-related strengths, such as the abilities to influence their own career development and work environment (Carson et al., 1995; de Guzman & Choi, 2013; Fugate, Kinicki, & Ashforth, 2004). Overall, we expect the negative relationship between overall career adaptability and career entrenchment to be weak or moderate rather than strong, because overall career adaptability is likely to predict certain career entrenchment dimensions better than others, and because some career adaptability dimensions are more likely to be negatively related to career entrenchment than others. We elaborate on these differentiated relationships in the next section.

Hypothesis 1. Career adaptability is negatively related to career entrenchment.

4. Relationships among dimensions of career adaptability and career entrenchment

We expect that overall career adaptability is stronger negatively related to perceptions of limited availability of career alternatives compared to perceptions of potential costs associated with career investments and emotional costs. As argued in the previous section, highly adaptable employees are not only more open to new career opportunities, they also possess more resources to potentially change career fields than less adaptable employees. These factors should reduce their perceptions of limited career alternatives. Our arguments may also suggest that employees with high career adaptability have lower levels of career investments and emotional costs. However, career construction theory argues that highly adaptable employees are able and willing to invest their physical, cognitive, and emotional energies into a chosen career (Guo et al., 2014; Savickas, 2013). Thus, countervailing effects exist that should render the associations between career adaptability and career investments and emotional costs relatively weaker than the proposed negative relationship between career adaptability and limited career alternatives.

Hypothesis 2. Overall career adaptability is negatively related to limited career alternatives.

With regard to the specific career adaptability dimensions, we expect that particularly *curiosity* is negatively related to overall career entrenchment and its dimensions because curiosity involves employees actively exploring future career opportunities (Savickas & Porfeli, 2012). Curiosity involves employees perceiving themselves as capable and being motivated to pursue new career opportunities and therefore should reduce their feelings of career immobility, make them less worried about the potential loss of career investments, lack of career alternatives, and emotional costs of career changes. In contrast, we argue that high levels of concern, control, and confidence may also exist among employees who feel entrenched in their careers. These employees might anticipate new career tasks, take responsibility, and display work-related confidence within their existing careers, without worrying about the possible loss of career investments, lack of career alternatives, and emotional costs. Our argument is consistent with career construction theory (Savickas, 2013), which assumes that certain aspects of career adaptability can also enable and motivate people to choose a career that fits their characteristics and to invest into this chosen career. For instance, recent research based on career construction theory showed that career adaptability positively predicted a sense of calling and professional competence (Guo et al., 2014).

Hypothesis 3. Curiosity negatively predicts (a) overall career entrenchment, (b) career investments, (c) limited career alternatives, and (d) emotional costs.

5. Method

5.1. Participants and procedure

Participants in this study were 404 employees (70% female) in Brazil, whose ages ranged from 18 to 65 years ($M = 30.6$; $SD = 9.3$). Employees worked in the areas of commerce (70.3%) and manufacturing (29.7%), 55.7% of them had been employed in their current job

for less than three years, and only 10.8% had been in the same job for more than 10 years. With regard to highest level of education achieved, 27.7% of employees were enrolled in a higher education course and 23.5% had completed college. The sample was a convenience sample, which we acquired using two different strategies. First, we published an invitation to participate in the study on Facebook and LinkedIn. The link was made available to those who answered positively to the invitation and fit all selection criteria (i.e., at least 18 years old; employed in a non-public organization at the time of the study). We recruited 145 employees (35.9%) using this approach. Participants were further asked to indicate the email addresses of other people who also fit the criteria. Thus, our second strategy was a snowball sampling approach that resulted in 259 additional participants (64.1%). Participants were asked to complete an online survey, and were fully informed about the objectives of the research and about the confidentiality of the data. Initially, we obtained 458 responses, but 54 participants had to be excluded due to missing data in the central study variables, resulting in a final sample of 404 employees.

Table 1

Career Adapt-Abilities Scale (CAAS) and Career Entrenchment Scale (CES): Items, descriptive statistics, standardized factor loadings, and internal consistency reliabilities.

Construct	First-order indicators	Mean	SD	Factor loading	α
Concern (CAAS)	1. Thinking about what my future will be like.	3.82	0.82	.62	.82
	2. Realizing that today's choices shape my future.	4.22	0.74	.64	
	3. Preparing for the future.	3.89	0.82	.67	
	4. Becoming aware of the educational and career choices that I must make.	4.07	0.74	.67	
	5. Planning how to achieve my goals.	3.81	0.90	.74	
	6. Concerned about my career.	3.99	0.84	.58	
Control (CAAS)	1. Keeping upbeat.	3.97	0.91	.41	.73
	2. Making decisions by myself.	4.02	0.80	.59	
	3. Taking responsibility for my actions.	4.53	0.59	.63	
	4. Sticking up for my beliefs.	4.16	0.71	.65	
	5. Counting on myself.	4.03	0.72	.69	
	6. Doing what's right for me.	3.86	0.83	.49	
Curiosity (CAAS)	1. Exploring my surroundings.	3.76	0.85	.69	.79
	2. Looking for opportunities to grow as a person.	4.12	0.80	.70	
	3. Investigating options before making a choice.	3.91	0.80	.63	
	4. Observing different ways of doing things.	3.88	0.76	.59	
	5. Probing deeply into questions I have.	3.96	0.72	.60	
	6. Becoming curious about new opportunities.	3.97	0.83	.52	
Confidence (CAAS)	1. Performing tasks efficiently.	4.32	0.61	.65	.81
	2. Taking care to do things well.	4.43	0.55	.70	
	3. Learning new skills.	4.06	0.74	.61	
	4. Working up to my ability.	4.41	0.63	.73	
	5. Overcoming obstacles.	4.20	0.65	.67	
	6. Solving problems.	4.21	0.64	.59	
Career investments (CES)	1. For me to enter another line of work/career field would mean giving up a substantial investment in training.	2.55	1.09	.73	.87
	2. I have too much time invested in my line of work/career field to change.	2.67	1.10	.85	
	3. It would be very costly for me to switch my line of work/career field.	2.74	1.03	.81	
	4. I have too much money invested in my line of work/career field to change at this time.	2.54	1.05	.80	
Limited career alternatives (CES)	1. I would have many options if I decided to change my line of work/career fields. ^a	2.69	0.99	.54	.72
	2. Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields. ^a	2.58	0.91	.50	
	3. If I left this line of work/career field, I would feel like I had no reasonable option.	2.28	0.92	.79	
	4. I am pleased that I have many alternatives available for changing my line of work/career field. ^a	2.17	0.76	.66	
Emotional costs (CES)	1. There would be a great emotional price involved in changing my line of work/career field.	3.02	1.12	.84	.76 ^b
	2. Leaving my line of work/career field would cause little emotional trauma in my life. ^{a,c}	3.13	1.14	.25	
	3. It would be emotionally difficult to change my line of work/career field.	2.65	1.10	.87	
	4. Changing my line of work/career field would be easy from an emotional standpoint. ^a	2.89	1.08	.75	
Construct	Second-order indicators	Mean	SD	Factor loading	α
Career adaptability (CAAS)	1. Concern	3.97	0.59	.71	.90
	2. Control	4.09	0.50	.76	
	3. Curiosity	3.93	0.56	.94	
	4. Confidence	4.27	0.46	.82	
Career entrenchment (CES)	1. Career investments	2.63	0.91	.86	.84
	2. Limited career alternatives	2.43	0.66	.69	
	3. Emotional costs	2.85	0.97	.58	

Note. $N = 404$; all loadings were significant at $p < .001$. Fit indices (with all items included): $\chi^2(586) = 1108.149$, $p < .001$; CFI = .902; TLI = .894; RSMEA = .047. Fit indices (with item 2 from emotional costs excluded): $\chi^2(552) = 1037.740$, $p < .001$; CFI = .908; TLI = .900; RSMEA = .047.

^a Reverse coded.

^b When item 2 was excluded, α increased to .86.

^c Item excluded from subsequent analyses.

5.2. Measures

5.2.1. Career adaptability

We assessed career adaptability and its four dimensions (concern, control, curiosity, and confidence) with the Brazilian form of the CAAS (Savickas & Porfeli, 2012; Teixeira, Bardagi, Lassance, Magalhães, & Duarte, 2012). The scale was developed based on career construction theory (Savickas, 1997) and has 24 items (6 items for each of the four dimensions; see Table 1), which are assessed on 5-point scales ranging from 1 (*not strong*) to 5 (*strongest*). Using confirmatory factor analysis (CFA), Teixeira et al. (2012) showed that the factor structure of the CAAS could be replicated in Brazil. A CFA with the data collected in the current study also showed an adequate fit for a higher-order career adaptability construct with four dimensions ($\chi^2[248] = 600.446, p < .001$; CFI = .892; TLI = .880; RMSEA = .059). Cronbach's alphas for overall career adaptability was .90, and Cronbach's alphas were .82, .73, .79, and .81 for concern, control, curiosity, and confidence, respectively (see Table 1).

5.2.2. Career entrenchment

We measured career entrenchment and its three dimensions (career investments, limited career alternatives, and emotional costs) with the Brazilian version of career entrenchment scale (Carson et al., 1995; Magalhães, 2008). Carson et al. (1995) developed their scale based on theoretical considerations and validated it in two pilot studies and a field study (for a methodological critique of Carson et al.'s, 1995, measure and a response to the critique, see Bedeian, 2002; Blau, 2001b). The scale consists of 12 items (4 items for each of the 3 dimensions; see Table 1), which are assessed on 5-point scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Magalhães (2008) replicated the 3-factor structure of the original scale reported by Carson et al. (1995). In our study, Cronbach's alphas for overall career entrenchment was .84, and Cronbach's alphas were .87, .72, and .76 for career investments, limited career alternatives, and emotional costs, respectively (Table 1). We excluded one item ("Leaving my line of work/career field would cause little emotional trauma in my life") from the emotional costs scale from further analyses, because its factor loading was low (.25); Cronbach's alpha for the emotional costs scale subsequently increased to .86. It may be that the low factor loading resulted from some participants overlooking the word "little" in the item. A CFA with our data yielded an adequate fit for a higher-order career entrenchment factor with three dimensions ($\chi^2[41] = 81.050, p < .001$; CFI = .979; TLI = .972; RMSEA = .049).

5.2.3. Demographic variables

We controlled for participants' age in years, gender (1 = *male*, 2 = *female*), highest level of educational achievement (ranging from 1 = *incomplete basic education* to 12 = *postgraduate training completed*), and job tenure (0 = *less than 6 months* to 9 = *more than 30 years*). We controlled for these variables, because researchers have suggested or shown that they are related to career adaptability, career entrenchment, or some of their dimensions. For instance, Carson et al. (1995) suggested that career entrenchment may increase over time, that is, with age and job tenure, and that highly educated employees may experience higher levels of career entrenchment. In addition, career adaptability dimensions have been shown to be associated with age and education (Zacher, 2014a).

6. Results

6.1. Correlations among the study variables

Table 2 shows the correlations among the study variables. Of note, age was significantly related to concern ($r = -.11, p = .025$), control ($r = .15, p = .003$), curiosity ($r = .12, p = .013$), but not to confidence, overall career adaptability, overall career

Table 2
Correlations among study variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	–												
2. Gender	–.17**	–											
3. Education	.36**	–.01	–										
4. Job tenure	.48**	–.11*	.21**	–									
5. Career adaptability	.07	–.02	.05	.02	–								
6. Concern	–.11*	.05	–.02	–.05	.78**	–							
7. Control	.15**	.06	.08	.02	.77**	.41**	–						
8. Curiosity	.12*	–.09	.06	.04	.86**	.55**	.56**	–					
9. Confidence	.09	–.10*	.05	.08	.80**	.46**	.54**	.64**	–				
10. Career entrenchment	.01	–.01	.06	.01	–.08	–.01	–.07	–.15**	–.04	–			
11. Career investments	.07	–.07	.08	.02	–.02	.02	.01	–.09	–.02	.84**	–		
12. Limited career alternatives	–.09	.01	–.05	–.04	–.21**	–.09	–.21**	–.23**	–.14**	.69**	.45**	–	
13. Emotional costs	.03	.07	.09	.04	–.02	.02	–.01	–.08	.01	.74**	.44**	.27**	–

Note. $N = 404$. For gender, 1 = *male* and 2 = *female*. For means and standard deviations, please see Table 1 and Method section.

* $p < .05$.

** $p < .01$.

entrenchment, and the career entrenchment dimensions. With regard to gender, women had slightly lower confidence than men, and educational level did not correlate significantly with career adaptability and career entrenchment. On a bivariate level, overall career adaptability did not significantly correlate with overall career entrenchment. However, curiosity correlated negatively with overall career entrenchment ($r = -.15, p = .003$) and limited career alternatives ($r = -.23, p < .001$). In addition, limited career alternatives were negatively correlated with overall career adaptability ($r = -.21, p < .001$), control ($r = -.21, p < .001$), curiosity ($r = -.23, p < .001$), and confidence ($r = -.14, p < .004$). Finally, the career adaptability and career entrenchment dimensions were moderately to highly intercorrelated (r s between .27 and .64, p s < .001). These findings suggest that, even though the dimensions belong to a higher-order construct, they are conceptually distinct and may have differential relationships with each other.

6.2. Relationship between overall career adaptability and career entrenchment

The structural equation model used to test our Hypothesis is shown in Fig. 1. The loadings of the career adaptability and career entrenchment dimensions on their respective higher-order factors were .58 or greater (p s < .001; see Table 1 for the loadings of the items on the career adaptability and career entrenchment dimensions), and the structural model had an adequate fit to the data ($\chi^2[684] = 1258.071, p < .001$; CFI = .896; TLI = .887; RSMEA = .046). Fig. 1 further shows that overall career adaptability had a relatively weak negative effect on overall career entrenchment when age, gender, education, and job tenure were controlled (standardized effect = $-.13, p = .046$). Thus, Hypothesis 1 was supported. We conducted further exploratory analyses in which we examined interactive effects of career adaptability with age, gender, education, and job tenure on career entrenchment. None of these interaction terms significantly predicted career entrenchment above and beyond the main effects of career adaptability and demographic variables.

6.3. Relationships among the Dimensions of Career Adaptability and Career Entrenchment

Table 3 summarizes the standardized effects of overall career adaptability and its dimensions on overall career entrenchment and its dimensions, as well as the fit indices of the four structural equation models tested. All of the models had acceptable fit indices. According to Hypothesis 2, overall career adaptability is negatively related to limited career alternatives. Consistent with this hypothesis, overall career adaptability significantly and negatively predicted perceptions of limited career alternatives (standardized effect = $-.26, p < .001$), but not perceptions of career investments and emotional costs (Table 3).

According to Hypothesis 3, curiosity negatively predicts (a) overall career entrenchment, (b) career investments, (c) limited career alternatives, and (d) emotional costs. Of the four career adaptability dimensions, only concern (standardized effect = $.27, p = .021$) and curiosity (standardized effect = $-.61, p < .001$) predicted overall career entrenchment, whereas control and confidence did not have significant effects (Table 3). Moreover, concern positively predicted career investments (standardized effect = $.25, p = .019$), and curiosity negatively predicted career investments (standardized effect = $-.50, p = .002$), limited career alternatives (standardized effect = $-.49, p = .005$), and emotional costs (standardized effect = $-.39, p = .015$). As shown in Table 3, the other effects of career adaptability dimensions on career entrenchment dimensions were not significant. Overall, the findings for curiosity provide support for Hypothesis 3.

Fig. 1. Relationship between career adaptability and career entrenchment. $N = 404$. Fit indices: $\chi^2(684) = 1258.071, p < .001$; CFI = .896; TLI = .887; RSMEA = .046. Standardized effects are shown. Age, gender, education, and job tenure were controlled. * $p < .05$; ** $p < .01$.

Table 3

Standardized effects of overall career adaptability and career adaptability dimensions on overall career entrenchment and career entrenchment dimensions.

Predictors	Dependent variables			
	Overall career entrenchment	Career investments	Limited career alternatives	Emotional costs
Overall career adaptability	−.13 ^{*,a}	−.07 ^c	−.26 ^{**,c}	−.04 ^c
Concern	.27 ^{*,b}	.25 ^{*,d}	.13 ^d	.17 ^d
Control	.13 ^b	.17 ^d	−.07 ^d	.04 ^d
Curiosity	−.61 ^{**,b}	−.50 ^{**,d}	−.49 ^{**,d}	−.39 ^{*,d}
Confidence	.16 ^b	.09 ^d	.20 ^d	.19 ^d

Note. Coefficients with the same superscript are from the same structural equation model.

^a Fit indices: $\chi^2(684) = 1258.071, p < .001$; CFI = .896; TLI = .887; RSMEA = .046.

^b Fit indices: $\chi^2(667) = 1197.020, p < .001$; CFI = .904; TLI = .893; RSMEA = .044.

^c Fit indices: $\chi^2(674) = 1225.811, p < .001$; CFI = .900; TLI = .890; RSMEA = .045.

^d Fit indices: $\chi^2(651) = 1159.708, p < .001$; CFI = .908; TLI = .895; RSMEA = .044.

* $p < .05$.

** $p < .01$.

7. Discussion

7.1. Summary and interpretation of findings

The goals of this study were to examine the relationship between two higher-order career-related constructs, career adaptability and career entrenchment, as well as the relationships among the dimensions of these constructs. While research on career adaptability is rapidly growing, research on career entrenchment appears to have stalled over the past decade (for two papers on the validity of the career entrenchment construct and its relationship with commitment, see Blau, 2001a, 2001b). The latter trend is unfortunate, because career entrenchment may not only have negative effects on individual employees (e.g., boredom and strain), but also on organizations (e.g., loss of productivity and innovation due to employees' skill atrophy), and broader society (e.g., decreased innovation due to reduced labor force mobility; Carson & Carson, 1997). Moreover, career entrenchment may also have positive effects on employees, such as higher job satisfaction and organizational commitment (Carson et al., 1995). We focused on career entrenchment and not on the conceptually related constructs of occupational continuance commitment and occupational embeddedness in this study because career adaptability and entrenchment clearly focus on employees' career-related resources and perceptions, whereas the focus of occupational continuance commitment is less differentiated and occupational embeddedness focuses on within-occupation factors only (Bedeian, 2002; Ng & Feldman, 2009). However, we recommend that future research also investigates occupational commitment and occupational embeddedness in relation to career adaptability and entrenchment to establish convergent and discriminant validity.

We hypothesized that the higher-order career adaptability construct is negatively related to overall career entrenchment, because employees with high career adaptability are more open to potential career changes, possess more psychosocial resources that may facilitate career changes, and are less worried about the social and materialistic implications of career changes than employees with low career adaptability (Hypothesis 1). Consistent with our assumptions, our structural equation model showed a relatively weak, negative association between career adaptability and career entrenchment (.13). We expected a relatively weak or moderate relationship between the higher-order constructs due to differentiated associations among the constructs' dimensions. Specifically, we hypothesized and found that overall career adaptability is only negatively related to the career entrenchment dimension of limited career alternatives (Hypothesis 2). This finding suggests that career adaptability is particularly relevant for employees' perceptions of alternative career options, but less so for perceptions of career investments and emotional costs because adaptable employees should also be able and willing to invest their resources into their current careers (Guo et al., 2014; Savickas, 2013).

Finally, we expected and found that particularly the career adaptability dimension of curiosity is negatively related to career entrenchment and its three dimensions. Employees with high levels of curiosity are interested in pursuing new career opportunities and therefore should perceive themselves as less immobile in their career, and they should be less worried about the loss of career investments, lack of alternatives, and emotional costs. In contrast, based on career construction theory (Savickas, 2013), we argued that employees with high levels of concern, control, and confidence may invest these resources into both entrenched and not entrenched careers, resulting in overall weak and non-significant relationships between the career adaptability and entrenchment dimensions. Interestingly, we found that concern was positively related to overall career entrenchment and perceived career investments, suggesting that employees who anticipate new career tasks in the future tend to feel too invested in their current careers to consider changing careers. Future research is needed to replicate this tentative finding.

7.2. Limitations and future research

While the relatively large sample size and the use of well-validated measures to assess career adaptability and career entrenchment constitute strengths of our study, we also must acknowledge several limitations. First, the cross-sectional study design does

not allow conclusions about causality and changes in career adaptability and career entrenchment over time. Based on the theoretical literature that conceives career adaptability, as well as its dimensions, as psychosocial resources and competencies (Savickas, 1997; Savickas & Porfeli, 2012, see also Blau, 2001b), we argued that career adaptability negatively predicts career entrenchment. However, it may also be possible that employees who feel entrenched in their careers are not able to maintain their career adaptability over time, or that career adaptability and career entrenchment influence each other reciprocally. To understand the direction of causal influence, future research should employ longitudinal designs to examine lagged effects between career adaptability and career entrenchment (for recent longitudinal studies on career adaptability, see Guan et al., 2013; Hirschi, 2009; Koen et al., 2012; Zacher, 2014b).

Second, the use of self-report measures can lead to artificially inflated correlations due to common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). While we cannot definitely rule out this potential problem with our current data, we used CFAs to show that career adaptability and career entrenchment dimensions constitute distinct constructs. Moreover, the relatively weak relationships between the overall constructs as well as some zero or relatively weak relationships among the constructs' dimensions suggest that common method bias was not a major concern in the current study. Similarly, Carson et al. (1995) argued that their measure of career entrenchment may not be overly susceptible to common method bias, because correlations between career entrenchment items and social desirability were low. Nevertheless, we recommend that researchers use different sources to assess career adaptability and career entrenchment in future studies, or assess these constructs at different points in time to reduce the likelihood of common method bias (cf. Zacher & Griffin, 2015).

Three additional limitations of the current study may have prevented a better understanding of the relationships between career adaptability and career entrenchment, as well as the constructs' dimensions. First, we included only a small selection of possible moderating variables in this study, and our exploratory analyses did not show evidence for moderating effects of age, gender, education, and job tenure on the relationship between career adaptability and career entrenchment. Thus, it will be important to develop theory on and test potential boundary conditions of this relationship. For instance, it may be possible that characteristics of the work environment, such as monotony and low job autonomy strengthen the relationship, because these unfavorable conditions may motivate adaptable employees' to change jobs and thus reduce their feelings of career entrenchment.

Second, we assessed career adaptability and career entrenchment at a single point in time, and thus we were not able to further gain insight into temporal underlying the relationship between these variables. Carson and colleagues (Carson & Carson, 1997; Carson et al., 1995, 1996) suggested that, over time, accumulated career investments lead to a higher perceived risk of emotional costs in case of career changes which, in turn, result in employees' perceptions of limited career alternatives (i.e., a "tunnel vision"). In addition, research has shown that career adaptability can change over time, and that this change can be predicted by individual differences in personality characteristics and future temporal focus (Zacher, 2014b). Further theory development and research is necessary to understand how these processes unfold over time, and how change in career adaptability may impact on change in career entrenchment.

Third and finally, there may be several countervailing mediators underlying the relatively relationship between career adaptability and career entrenchment that we neglected. For instance, career adaptability is positively associated with job search self-efficacy (Guan et al., 2013) which should, in turn, negatively predict career entrenchment. At the same time, career adaptability is positively related to career satisfaction, perceived career success, and professional well-being (Maggiori et al., 2013; Zacher, 2014a), and these outcomes may, in turn, motivate employees to remain entrenched in their careers. Consistent with the latter assumption, Carson et al. (1995) argued that, due to material and psychological benefits associated with steady careers, "the motivation to become and remain entrenched may be strong" (p. 302). Future research is needed that develops and tests multiple mediator models of the relationships between career adaptability, career entrenchment, and subjective and objective career outcomes.

7.3. Practical implications

While careers are often said to become more fragmented and boundaryless (Briscoe, Hall, & Frautschy DeMuth, 2006), research also suggests that many employees are still following rather stable career paths within single organizations and career fields, and thus some of these employees may feel entrenched in their careers (Biemann, Fasang, & Grunow, 2011). As career entrenchment, particularly in combination with low career satisfaction ("being entrapped"), may have detrimental consequences for individuals, organizations, and societies (Carson & Carson, 1997), it is important to identify ways to prevent employees from feeling entrenched in the first place, and to reduce their career entrenchment. Our findings suggest that increasing individual employees' career adaptability, and particularly curiosity, may reduce career entrenchment.

Interventions at the individual level could be further strengthened by combining them with interventions at the organizational level. Carson and Carson (1997) recommended involving entrenched employees in special projects and assignments, facilitating job rotation and lifelong learning, and providing continuous career counseling. Moreover, these researchers suggested that organizations should avoid a top-down approach to career development and give more autonomy and responsibility to individual employees. Additional recommendations to strengthen career adaptability could involve ensuring that employees feel safe in their organizational environment to openly investigate different career options, and providing employees who feel entrenched with successful role model for career changes (Carson & Carson, 1997).

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