

Dust yourself off and try again: the positive process of career changes or shocks and career resilience

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Abstract

Purpose – To deepen the understanding of the process of growth and development of career resilience, this study aims to investigate the impact of career history and openness to change as antecedents of career resilience and the effect of career resilience on career self-management and career outcomes (salary and career satisfaction) over time using the Career Construction Theory.

Design/methodology/approach – The authors applied structural equation modeling with cross-lagged associations between career characteristics (number of employees, job seniority and missed promotions), openness to change, career resilience, individual career management (ICM) and career success (salary and career satisfaction) using three-wave data of 872 employees.

Findings – Openness to change had cross-lagged positive relationships with career resilience. The number of (previous) employers and missed promotions had a positive effect on career resilience, whereas job seniority was related negatively to career resilience. Furthermore, career resilience had a positive effect on individual career self-management in terms of networking, practical things and drawing attention over time. No effect was found on the individual career self-management dimension of mobility-oriented behavior over time. Finally, ICM had a positive effect on salary and career satisfaction over time.

Originality/value – Altogether these results suggest that career resilience is not only a way to stay active as an employee and cope with career changes, but it also enhances employees' chances to achieve objective and subjective career success.

Keywords Career development, Career success, Career management, Career transitions, Career resilience, Career history

Paper type Research paper

Introduction

Due to the increased pace and sequence of changes in society and organizations (Perera and McIlveen, 2017), careers have become increasingly complex and flexible in the past few decades (Baruch *et al.*, 2015). As a result of the more turbulent and mobile nature of careers (Eby *et al.*, 2003), career resilience – i.e. the willingness and ability to adapt to new situations,



overcome adverse career impacts and bounce back after a career change (e.g. Seibert *et al.*, 2016; Vough and Caza, 2017) – has become a vital career resource for individuals (e.g. Bimrose and Hearne, 2012). Career resilience does not only facilitate adapting to new situations, overcoming and bouncing back after adversities or career shocks like a missed promotion (Akkermans *et al.*, 2018) but can also help people to deal with less visible adversities during their career (Verbruggen and De Vos, 2020; Vough and Caza, 2017). Accordingly, career resilience can significantly affect people's career success (Chiaburu *et al.*, 2006; Mishra and McDonald, 2017).

Despite the importance of career resilience to flourish and be successful in today's turbulent career era, empirical research on the construct has remained sparse to date (Han *et al.*, 2021). In addition, since most studies on the topic have been cross-sectional (Mishra and McDonald, 2017), little is known about career resilience change over time. The aim of this study is, therefore, to enhance our understanding of the dynamic nature of career resilience by examining both factors triggering as well as outcomes of career resilience growth. In this paper, we explore the role of openness to change and career history, i.e. number of past employers, job seniority and career shocks or setbacks like missed promotions, in affecting career resilience change. We will also explore the relationship between career resilience growth and career self-management and career outcomes, i.e. salary and career satisfaction over time.

This study has four main contributions. First, our study contributes to the resilience literature by extending insights into *career* resilience and the integration of resilience in the story of career narratives. Thereby, we answer the call of several recent studies for more research about resilience from a career-specific perspective (Bimrose and Hearn, 2012; Lyons *et al.*, 2015a, b) and extend theories on career construction. This perspective is critical in understanding the role of resilience in career changes. Second, in contrast to most studies about (career) resilience that adopt a cross-sectional approach that is limited in its predictive power, we use a longitudinal cross-lagged design, as recommended by the review of Mishra and McDonald (2017). This design enables us to test longitudinal pathways of career resilience. In this pathway, we include career shocks which may redirect career paths and career constructions. Hereby, we extend the literature on career shocks and intertwine it with literature on career constructions. Third, we add to current knowledge about career management by investigating the role of career resilience in individual career management (ICM), which is a topic that has only received scant attention in the literature. From research-linked ICM to perceived career success, we aim to uncover the hidden potential of career resilience for triggering positive changes in the careers of individuals. Fourth, we examine both objective (e.g. number of previous employers and salary) and subjective correlates (e.g. career satisfaction) of career resilience, in that way examining the phenomenon in a highly comprehensive way (cfr. Spurk *et al.*, 2019). An increased understanding of career resilience has also important managerial implications. For instance, it could help human resources managers and career counselors to advise employees about possible career paths, recover from career disruptions as well as develop organizational training programs dedicated to enhancing career resilience.

Theoretical background and underpinnings

The concept of resilience is studied in several streams of literature, including health, recovery and developmental domains. In these domains, resilience reflects an adaptive mechanism of human development of individuals confronted with adversity (e.g. Aburn *et al.*, 2016; Davydov *et al.*, 2010; Kumpfer, 1999; Luthar and Zigler, 1991; Masten, 2001; Rutter, 2012). Most research on resilience is done from a health psychology view, and much less is known from a career-specific perspective (e.g. Lyons *et al.*, 2015a, b). Yet, the adaptive mechanism of resilience is valuable in the light of careers, since career resilience facilitates recovering from

career changes, which also implies growth and development after impactful (career) events (e.g. [Vough and Caza, 2017](#)).

Career resilience refers to the ability to deal with change once it happened ([Bimrose and Hearne, 2012](#)). Career resilience is believed to be influenced by many different features (e.g. personality, career history; [Mishra and McDonald, 2017](#)) and can in turn be seen as a crucial resource-linking career events and even traumas to potential career growth ([Vough and Caza, 2017](#)). In other words, career resilience can be seen as a developmental trajectory ([Caza and Milton, 2012](#); [Mansfield et al., 2012](#)) that reflects behaving in a resilient manner to changes and adversities and in that way generating opportunities for the future ([Davis et al., 2009](#); [Fletcher and Sarkar, 2013](#)). That is why [Mishra and McDonald \(2017, p. 216\)](#) defined career resilience as “a developmental *process* of persisting, adapting, and/or flourishing in one’s career despite challenges, changing events, and disruptions over time.”

As resilience’s importance arises in the face of adversities, the adversities are critical. These adversities, events or shocks can have different natures, characteristics and attributions ([Akkermans et al., 2018](#)). Depending on the appraisal of individuals, the need for and use of resilience changes ([Britt et al., 2016](#)) which eventually affects career construction (cfr. [Mansur and Felix, 2020](#)). For example, while individuals might act very agentic and want to actively shape their career, an unforeseen event like missed promotion is likely to require an adjustment of ambitions and actions but also affects the narrative of one’s career. Although individuals may have acquiesced in their career path and story, defeatism may necessitate an adjustment of their career path. Individuals might reappraise this career as “for the better” or reallocate their ambition and no longer perceive it as their own ambition. This also affects new ambitions and goals (cfr. [Seibert et al., 2013](#)).

Resilience growth over time

The Career Construction Theory (CCT; [Savickas, 2013](#)) argues that career adaptability resources – i.e. individuals’ psychosocial resources that determine their ability to cope with current and anticipated career tasks, transitions and traumas ([Savickas, 2013](#)) –, like career resilience, are crucial in today’s turbulent career era. According to CCT, the development of career adaptability resources is partly fueled by people’s adaptivity, i.e. their innate attitude toward and motivation for change, and additionally depends on how people’s career is constructed over time or past career experiences ([Perera and McIlveen, 2017](#); [Rudolph et al., 2017](#); [Savickas, 2013](#)). Traits like personality enable individuals to imagine and enact future courses of career actions and career success, differently put, career success appears to have dispositional causes and origins ([Judge et al., 1999](#)). While general personality traits are stable over time, the specific outcome and behavior are adjustable with the individuals’ bandwidth.

While adaptivity traits set the scene and generate a potential for adaptability resources, people’s career experience is believed to allow these resources to develop and unfold. In particular, [Savickas \(2013\)](#) argues that the process of adapting to changing conditions – e.g. people’s experience with past career changes – prompts personal development that could enhance people’s career adaptability resources. When people have developed career adaptability resources, these resources will facilitate *career adapting* responses, i.e. behaviors people engage in “to deal with career development tasks and changing work and career conditions” ([Rudolph et al., 2017](#)), enabling *career adaptation*, exemplified in positive career outcomes such as career success ([Perera and McIlveen, 2017](#); [Savickas, 2013](#)). Although career resilience and career adaptability seem strongly related, they can be clearly differentiated from each other ([Bimrose and Hearne, 2012](#)); while career adaptability is about being more proactive by nature, career resilience refers to “exhibited attitudes” and the ability to survive challenges when they occur ([Maree, 2017](#)), i.e. career adaptability resource. Furthermore, CCT states that career adaptability resources will help people achieve good

career outcomes because people with more of these resources will engage more in adaptation behaviors (Savickas, 2013).

In line with CCT's view on the career adaptability process, we examine the role of openness to change, a core adaptivity trait, and career history, which serves as indicators for people's past experience with career change, as antecedents of career resilience over time and explore how career resilience, in turn, relates to ICM, as a proxy of career adapting responses, and salary as a proxy of career adaptation. Openness to change is defined as a personality factor that reflects a tendency of being curious, flexible and willing to adapt (Costa and McCrae, 1992). People who are high in openness to change are more flexible about their (career) role identities (Whitbourne, 1986), they are more positive toward change, see changes from a more balanced perspective, and they have a higher tolerance for ambiguity (Connor-Smith and Flachsbart, 2007). These individuals will be more willing to change their personal (career) goals and strategies in order to overcome and recover from adversities. Given this openness and willingness to change, it is likely that they, over time, encounter more change situations and, therefore, develop more adaptation resources, such as career resilience (Arora and Rangnekar, 2016; Chiaburu *et al.*, 2006; Lee *et al.*, 2013) and become more optimistic about the future also in light of adversities. In that way, the personality trait of openness to change may trigger a positive, "upward spiral" of career adaptability resources. This links personality to resilience and vice versa, a dynamic that provides possibilities for an individual to grow throughout a career, based on adaptability or openness to change and building on career resilience (Maree, 2017). Therefore, we explore the cross-lagged relationship between openness to change and career resilience.

H1. Openness to change is associated with career resilience over time.

When people go through a career change or are confronted with career trauma, their career plot is interrupted, and they have to engage in learning and personal development in order to resume movement and keep their career going (Savickas, 2013). While dealing with such experiences, people generally build competencies like self-reflection and information seeking skills (Savickas, 2013), which can, in turn, enhance their career resilience (Verbruggen and Sels, 2008). As such, people's past career experiences may affect their career resilience. The underlying idea is that exposure to (negative) career experiences triggers a process of reflection, in which the particular experience is first appraised by comparing the situation to the perceived own ability to cope with the situation. In other words, the career experience is assessed as a threat or a challenge (Britt *et al.*, 2016). Subsequently, a behavioral response occurs, i.e. a coping response. Over time, repeated coping responses to various career experiences generate a positive toughening effect (Seery *et al.*, 2013) and may desensitize individuals when it comes to adversities or (minor) shocks. Job seniority, the number of past employers and the number of missed promotions are all indicators of the likely occurrence of a career change and positive adaptation to that change in the past. The idea that people's past career experiences may affect their career resilience is also supported by a recent meta-analysis by Rudolph *et al.* (2017), who showed the vital role of career history, such as job seniority or tenure, number of past employers and the magnitude of the last career transition, for understanding career resilience. Although these variables have been mainly treated as control variables in past research, it is worthwhile to examine their role for career outcomes more explicitly (e.g. Vough and Caza, 2017). Some studies also show that repeated exposure to either negative (e.g. missed promotion) or positive (e.g. promotions) events can build resilience (e.g. Kornhaber and Wilson, 2011; Vough and Caza, 2017), which stresses the importance to study frequency as well. This ties in with the concept of career shocks and how these affect career trajectories (Akkermans *et al.*, 2018; Seibert *et al.*, 2013). Recent literature identifies the following characteristics of career shocks: valence, frequency, predictability and controllability, duration and source (Akkermans *et al.*, 2018). However, it is not clearcut to

make a distinction based on the valence of the career event, for example. Sometimes, positive versus negative interpretations of events and their effects are different from what we would expect at first glance (Pak *et al.*, 2021). While some events (such as missed promotions) affect individuals heavily in a negative fashion, other individuals reappraise this event and rewrite their career narrative into “this happened for the best” or “this turned out to bring me where I actually wanted to be.” Also, while positive events may cause growth, negative events may have the same outcome, depending on the interpretation and appraisal (Britt *et al.*, 2016). Because the outcomes and effects may be similar, and the valence of events is difficult to capture or determine, research recommends focusing on a specific type of event. In line with this recommendation, this study focuses on specific events without taking into account the appraisal of these events. At the same time, the frequency of occurring events seems to affect the magnitude of perceived events and can be taken into account when studying career events, setbacks or shocks. Therefore, we include the following career characteristics: job seniority, number of past employers and missed promotions. These indicators may provide individuals “money in the bank.” By building experiences in overcoming setbacks, they may gain more career resilience techniques.

H2. Job history, i.e. job seniority (H2a), the number of past employers (H2b) and missed promotions (H2c), is associated with career resilience.

Career resilience is related positively to career self-management behavior (Chiaburu *et al.*, 2006), taking up personal responsibility for careers (Brotheridge and Power, 2008), career planning (Carless and Bernath, 2007) and having a modern career orientation (Lyons *et al.*, 2015a, b). ICM behaviors generally refer to four conceptual dimensions: networking activities, practical things, drawing attention and mobility-oriented behavior (Sturges *et al.*, 2002). Networking and drawing attention are more internally oriented career self-management behaviors, with networking referring to getting in contact with others who might help to advance your career and drawing attention to capturing visibility activities of one’s achievements. The two other dimensions are more externally oriented career self-management, with practical things referring to activities that improve chances to get a job elsewhere (for example, keeping a CV up to date or getting external training) and mobility-oriented behavior capturing activities concerned with getting into a position to leave the organization if it would benefit one’s career (Sturges *et al.*, 2002). Career resilience might fuel these ICM behaviors because individuals high on career resilience feel in control and are able to adapt to changes (Chiaburu *et al.*, 2006). When people feel in control and have the ability to adapt to changes, they are more likely to take action to improve their situation, progress toward their goals or respond to a disruption or negative events (King, 2004; Lanz, 2015). In addition, people’s career resilience may affect the career story they construct for themselves, which in turn may facilitate or, conversely, inhibit action (Savickas, 2013). More specifically, people high on resilience would construct a career story that includes initiating and adapting to changes and rebounding from adversity, while a less resilient person might construct a career story including elements such as helplessness, defeatism and acquiescence. It is this subjective constructed career story that steers our behaviors (Savickas, 2013). In particular, we are more inclined to take actions that are coherent with the career story we constructed about ourselves. As such, people high on career resilience are likely to engage more in ICM behaviors because this fits their career story of having an agentic and self-steered career, whereas less resilient individuals may be more likely to be passive in line with their more acquiescent career story. In line with our expectations, earlier research has indeed found positive associations between career resilience and career self-management behaviors (Chiaburu *et al.*, 2006), taking up personal responsibility for careers (Brotheridge and Power, 2008), career planning (Carless and Bernath, 2007) and having a modern career orientation (Lyons *et al.*, 2015a, b).

H3. Career resilience has a positive effect on individual career self-management over time.

The study of [Matos et al. \(2010\)](#) illustrates the positive effects of career resilience on job outcomes such as job satisfaction. Similarly, resilient employees have been shown to be better at achieving various organizational objectives, such as job performance and organizational commitment ([Meneghel et al., 2016](#); [Youssef and Luthans, 2007](#)). We expect that the relationship between career resilience and career outcomes like income and career satisfaction is mediated by career management because this type of adaptive behavior enables growth to affect outcomes (cfr. [Guan et al., 2019](#)). Therefore, an individual's high career resilience may result in high career success ([Wei and Taormina, 2014](#)).

H4. Career resilience has a positive effect on salary (H4a) and career satisfaction (H4b) over time through ICM.

Method

Procedure and data collection

Three-wave data were collected among 872 Flemish employees of 15 organizations. We launched a call for a study on employability and careers during a series of presentations for HR practitioners. Organizations were able to respond to this call, and an informative meeting with HR practitioners was organized. Employees of the participating organizations were invited to fill out a survey. Data were collected over three waves, with approximately six months between each wave. We applied listwise deletion of missing values.

Participants

All participants were employed in the Flemish region of Belgium. The career culture in Belgium perceives job change to be non-preferable and needs to be avoided (Eurobarometer 64.1). Most participants had a permanent position ($N = 776$; 88.8%) and worked full-time ($N = 671$; 76.8%). Age ranged from 22 to 63 years ($M = 41.19$, $SD = 9.994$). A small majority were female ($N = 488$; 55.8%), and most respondents were highly educated (higher vocational education and university-level education).

Dropout

Logistic regression was performed with demographic variables added (gender, educational level, contract type, job level and paper and pencil versus online participation) in the first step, and the study variables (i.e. number of previous employees, job seniority, missed promotions, openness to change, career resilience, individual career self-management and salary), in the second step, as independent variables. This analysis showed that the pattern of the dropout was not affected by any variable.

Measures

Openness to change was measured with the five-item scale of [Fugate et al. \(2004\)](#). The reason for choosing this measure lies within the context where it was developed, namely, employability and career development ([Fugate and Kinicki, 2008](#)). A sample item of this scale is: "I feel changes at work generally have positive implications." (1 = strongly disagree to 5 = strongly agree; $\alpha_{T1} = 0.85$, $\alpha_{T2} = 0.86$).

Career history was measured at Time 1 and refers to the past. For the number of employers, the question was asked: "For how many employers have you worked?" Of the full input dataset, 192 (25.3%) had one previous employer, 194 (25.5%) had two employers, 196 (25.8%) had three employers and 178 (23.4%) had four or more employers. For job seniority,

the question was asked: "How long have you been working in your current position?" This measure was included because it probably captures a sense of getting stuck in the current position (cfr. Aronsson and Göransson, 1999; Stengård *et al.*, 2016). Responses ranged from 0 to 41 years. Missed promotions were measured by one item: "have you missed a promotion during the last six months?"

Career resilience was measured with five items developed by London (1993). A sample item is: "To what extent can you handle work problems that come your way?" (1 = not or barely to 5 = to great extent; $\alpha_{T1} = 0.78$, $\alpha_{T2} = 0.79$).

Career self-management was measured with the 16 items of the ICM scale by Sturges *et al.* (2002). The first dimension, "Networking," consists of seven items; a sample item is: "I have got myself introduced to people who can influence my career." The last item of this scale was excluded due to low factor loadings (<0.40) ($\alpha_{T1} = 0.85$, $\alpha_{T2} = 0.85$, $\alpha_{T2} = 0.87$). The second dimension, "Mobility-oriented behavior," consists of two items, a sample item is: "I have made plans to leave this organization once I have the skills and experience to move on" ($r_{T1} = 0.74$, $r_{T2} = 0.80$, $r_{T2} = 0.79$). The third dimension, "Practical things," consists of five items; a sample item is: "I have kept my CV up to date." One item was excluded due to cross-loadings on different dimensions ($\alpha_{T1} = 0.79$, $\alpha_{T2} = 0.77$). The fourth dimension is, "Drawing attention," consists of two items, a sample item is: "I have made sure I get credit for the work I do" ($r_{T1} = 0.78$, $r_{T2} = 0.81$).

Salary was measured by the question: "What is your current net monthly wage?". This question was posed at the third time point.

Career Satisfaction was measured by the question: "How satisfied are you with your career?" (score 0–10). This question was posed at the third time point. Similar concepts like life satisfaction refer to a general and overall feeling and perception and require a global indicator (e.g. Andrews and Withey, 1974; Scarpello and Campbell, 1983). For facet satisfaction (e.g. career satisfaction), it is also demonstrated that a single-item measure is preferable (Nagy, 2002).

Control variables. The hypotheses were tested with and without including control variables (i.e. age, gender, educational level and job function). The pattern of results was not significantly different. Therefore, in line with recommendations by Carlson and Wu (2012), the results are presented without including control variables.

Analyses

In order to inspect the factorial structure, measurement models were tested separately at T1 and T2 with the R Studio software package. The measurement models were tested with confirmatory factor analyses. The hypothesized six latent factor models (i.e. openness to change, career resilience and four dimensions of ICM, MM1 for T1 and MM7 for T2) were compared with five alternatives: (1) a five-factor model in which the items for openness to change and career resilience are loaded on one factor (MM2 for T1 and MM8 for T2); (2) a four-factor model in which the items for networking and drawing attention are loaded on one factor (MM3 for T1 and MM9 for T2); (3) a three-factor model in which items for networking and drawing attention are loaded on one factor and mobility-oriented behavior and practical things loaded on one factor (MM4 for T1 and MM10 for T2); (4) a two-factor model in which all items for individual career self-management are loaded on one factor (MM5 for T1 and MM11 for T2); and (5) a model in which all items are loaded on one factor (MM6 for T1 and MM12 for T2). Alternative models are compared by using the χ^2 -difference test, and factor loadings were inspected (i.e. factor loadings needed to be higher than 0.40; cf. Matsunaga, 2010).

Next, the models of T1 and T2 were combined, and factorial invariance over time was tested by comparing a freely estimated or unconstrained model with a restricted model in which corresponding latent factor loadings were set to be equal. A non-significant χ^2 -difference test of the fit indices of these models implies that the factor structures of both time points are the same and that measures are similar over time.

The structural model was tested through structural equation modeling with the Lavaan package (Rosseel, 2012) for R Studio software. The following fit indices of the models were evaluated: CFI, TLI and RMSEA. CFI and TLI values of >0.90 , and RMSEA values of <0.08 represent a good fit (Marsh *et al.*, 2004).

Results

Descriptive results

The correlations between the study variables are shown in Table 1. Rank-order stability of the latent factors appeared to be relatively high (ranged from $r = 0.60, p < 0.01$ to $r = 0.72, p < 0.01$). Career resilience was positively related to the other study variables, except for mobility-oriented behavior and job seniority, which showed a negative correlation with career resilience.

Measurement models

Table 2 presents the fit statistics of the measurement models and structural equation models. The hypothesized measurement models (MM1 and MM7) provided a good fit for the latent factors with the data both at T1 and T2. The hypothesized models had a significantly better fit than alternative models. All items were loaded significantly on their respective latent factor at T1 and T2 well above 0.40. Results also indicated factorial invariance over time. Modification indices did not indicate potential risks concerning multicollinearity.

Structural equation models

Fit indices of the final model (Table 2) were good (CFI = 0.93, TLI = 0.92, RMSEA = 0.04). Figure 1 shows the final model.

In line with H1, we found that openness to change at T1 was positively related to career resilience at T2 ($\gamma = 0.12, p < 0.001$), and this is under control of the relationship between career resilience at T1 and openness to change at T2, which was also positive ($\gamma = 0.22, p < 0.001$).

Also, career history was significantly related to career resilience in the expected direction. In particular, we found a negative correlation between job seniority ($\gamma = -0.15, p < 0.001$) and a positive relationship between the number of past employers ($\gamma = 0.13, p < 0.001$) and missed promotions ($\gamma = 0.10, p < 0.01$). This is in line with H2.

We found partial support for H3. In particular, career resilience at T1 was positively related to ICM networking at T2 ($\gamma = 0.14, p < 0.001$), ICM practical things at T2 ($\gamma = 0.26, p < 0.001$) and ICM drawing attention at T2 ($\gamma = 0.16, p < 0.01$), all while controlling for ICM's at T1, but we found no significant relationship with ICM mobility-oriented behavior.

Finally, ICM networking and ICM practical things at T2 were positively associated with salary at T3 ($\gamma = 0.22$ and 0.16 , respectively, $p < 0.001$) and ICM networking T2 was positively associated with career satisfaction at T3 ($\gamma = 0.20, p < 0.01$), which is in line with H4. However, career mobility-oriented behavior at T2 was negatively associated with salary ($\gamma = -0.25, p < 0.01$) and career satisfaction ($\gamma = -0.20, p < 0.01$) at T3.

We also found that missed promotions were positively associated with individual career self-management mobility-oriented behavior at T2 ($\gamma = 0.08, p < 0.01$) and job seniority was negatively associated with individual career self-management mobility-oriented behavior at T2 ($\gamma = -0.17, p < 0.001$).

Discussion

This study examined correlates of career resilience over time and ties events and career characteristics to resilience while accounting for openness to change, which is assumed to be

Table 1.
Means, standard
deviations and
correlations between
the study variables

	M	SD	1	2	3	4a	5a	6a	7a	8a	9a	4b	5b	6b	7b	8b	9b	10
1. Number of employers	2.49	1.11																
2. Job seniority	7.28	8.11	-0.13**															
3. Missed promotions	0.08	0.28	0.00	0.02														
4. Openness to change (T1)	3.76	0.60	0.06	-0.15**	-0.06													
5a. Career resilience (T1)	3.45	0.64	0.16**	-0.22**	0.12**	0.45**												
6a. ICM networking (T1)	3.34	0.92	0.03	-0.19**	0.08*	0.31**	0.46**											
7a. ICM practical things (T1)	2.43	0.90	0.11**	-0.16**	0.16**	0.17**	0.37**	0.41**										
8a. ICM drawing attention (T1)	3.02	0.89	0.04	-0.08*	0.08*	0.20**	0.26**	0.57**	0.30**									
9a. ICM mob.-oriented beh. (T1)	1.90	0.92	-0.03	-0.23**	0.14**	-0.02	0.20**	0.24**	0.42**	0.18**								
4b. Openness to change (T2)	3.71	0.60	0.01	-0.13**	-0.02	0.60**	0.42**	0.25**	0.09**	0.15**	-0.03							
5b. Career resilience (T2)	3.42	0.66	0.07*	-0.20**	0.10**	0.40**	0.65**	0.37**	0.37**	0.21**	0.19**	0.48**						
6b. ICM networking (T2)	3.36	0.91	0.06	-0.15**	0.08*	0.30**	0.45**	0.72**	0.39**	0.46**	0.19**	0.31**	0.45**					
7b. ICM practical things (T2)	2.43	0.90	0.13**	-0.15**	0.12**	0.13**	0.36**	0.41**	0.70**	0.23**	0.33**	0.10**	0.40**	0.50**				
8b. ICM drawing attention (T2)	2.88	0.90	0.02	-0.12**	0.05	0.12**	0.25**	0.49**	0.26**	0.60**	0.13**	0.20**	0.24**	0.55**	0.34**			
9b. ICM mob.-oriented beh. (T2)	2.05	0.97	-0.01	-0.28**	0.14**	-0.01	0.18**	0.19**	0.34**	0.15**	0.60**	-0.05	0.27**	0.22**	0.45**	0.12**		
10. Income (T3)	3.08	1.26	-0.01	0.08*	-0.02	0.12**	0.16**	0.20**	0.23**	0.14**	-0.08*	0.09**	0.18**	0.20**	0.20**	0.12**	-0.09*	
11. Career satisfaction (T3)	7.03	3.94	-0.06	0.03	-0.08*	0.11**	0.08*	0.12**	0.02	0.10**	-0.07*	0.15**	0.07*	0.13**	0.01	0.11**	-0.14**	0.11**

		χ^2	df	<i>p</i>	CFI	TLI	RMSEA	Resilient career construction
Measurement models								
<i>MM1</i>	<i>6 latent factors (T1)</i>	<i>827.477</i>	228	<i><0.001</i>	<i>0.935</i>	<i>0.921</i>	<i>0.055</i>	381
MM2	5 latent factors (T1)	1,198.840	233	<0.001	0.895	0.876	0.069	
MM3	4 latent factors (T1)	1,746.796	237	<0.001	0.836	0.809	0.085	
MM4	3 latent factors (T1)	2,168.759	240	<0.001	0.790	0.759	0.096	
MM5	2 latent factors (T1)	2,357.640	242	<0.001	0.770	0.737	0.100	
MM6	1 latent factor (T1)	3,280.746	243	<0.001	0.669	0.625	0.120	
<i>MM7</i>	<i>6 latent factors (T2)</i>	<i>769.301</i>	228	<i><0.001</i>	<i>0.945</i>	<i>0.933</i>	<i>0.052</i>	
MM8	5 latent factor (T2)	1,187.626	233	<0.001	0.903	0.885	0.068	
MM9	4 latent factors (T2)	1,902.119	237	<0.001	0.830	0.802	0.090	
MM10	3 latent factors (T2)	2,168.111	240	<0.001	0.803	0.774	0.096	
MM11	2 latent factors (T2)	2,453.751	242	<0.001	0.774	0.743	0.102	
MM12	1 latent factor (T2)	3,584.284	243	<0.001	0.659	0.613	0.125	
MM13	Unconstrained	3,011.218	990	<0.001	0.913	0.900	0.048	
MM14	Constrained	3,025.176	1,008	<0.001	0.913	0.902	0.048	
Structural Equation Models								
<i>MM15</i>	<i>Parsimonious SEM</i>	<i>2,944.659</i>	<i>1,250</i>	<i><0.001</i>	<i>0.928</i>	<i>0.921</i>	<i>0.039</i>	Table 2. Fit statistics of the models
Note(s): Results in italics indicate the best fit								

a more stable factor. Also, it relates career resilience to career management, success and satisfaction outcomes. In so doing, it ties different streams of literature to specific career constructions.

We found a positive relationship between openness to change and subsequent career resilience but also a reversed causal path from career resilience to subsequent openness to change. The findings on the dispositional and stable factor of openness as a less stable “trait” indicate that a career construction may be less stable than we would expect or assume. Our findings indicate that both openness to change and career resilience play a crucial role in the construction of a career. When individuals encounter career shocks, such as a missed promotion, it affects their career resilience, which interplays with expressed or experienced openness to change. The career path can be directed by the individual applying their career resilience. This application warrants career success outcomes, including income and career satisfaction. The findings of our study give hope, in the sense that careers are malleable and “constructable.” However, we also acknowledge the rather high stability of individuals’ career resilience over time.

We also found that the number of previous employers and missed promotions were positively related to career resilience, whereas job tenure had a negative effect. These findings suggest that employees can benefit from prior career changes and events or career shocks and setbacks such as missed promotions. Whereas previous research mainly focused on psychological experiences as antecedents of career resilience, our study shows that also events and career steps can impact how this career adaptability resource evolves over time. Therefore, our findings also position career shocks, events and experiences within the CCT. Depending on these experiences, individuals must adjust their career path and redirect the career construction and narrative thereof. Besides mapped out careers and agentic behaviour targeting ambitions and career goals, individuals are often confronted with unexpected events and have to redirect their careers (Akkermans *et al.*, 2018). This study maps out how career constructions can be redirected with the use of career resilience. The findings of this study centralized the constructive aspect of career resilience within career narratives and constructions.

Career resilience was, in turn, positively related to the career self-management dimensions of networking, practical things and drawing attention, but not with mobility-oriented

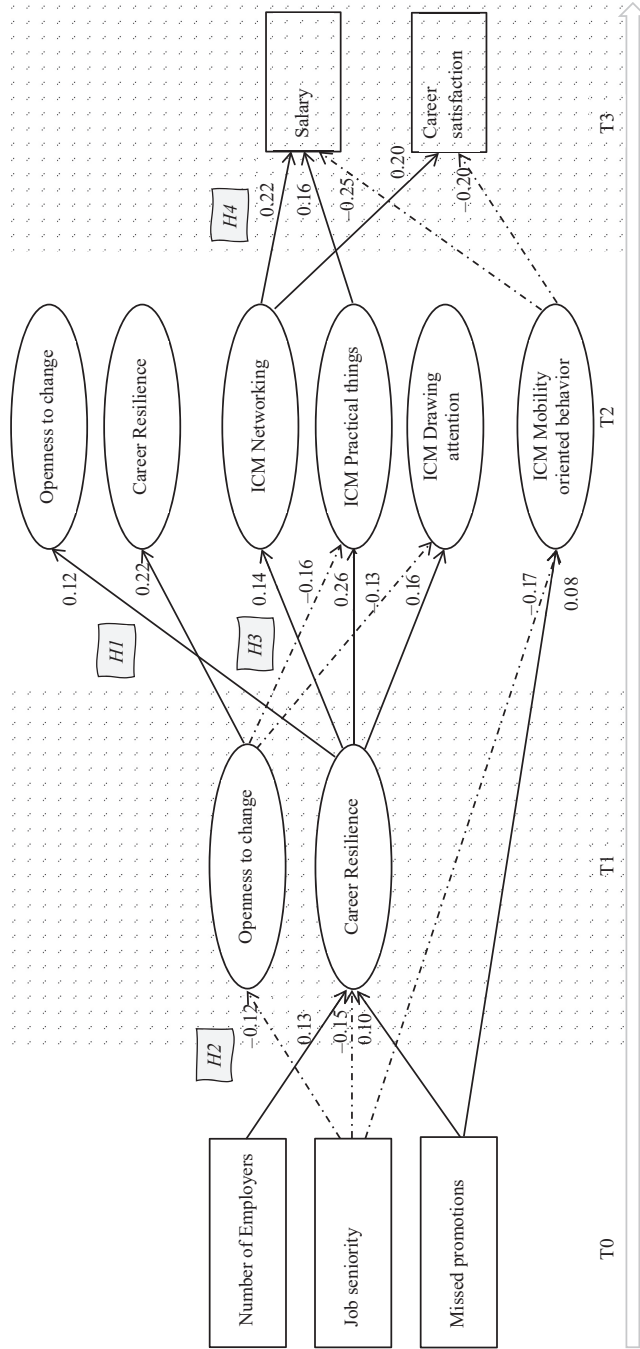


Figure 1.
Results structural
equation modeling

Note(s): Ovals represent latent variables; squares represent observed variables. Dashed lines are regressions with a negative loading. All presented regressions were significant with $p < 0.01$. Stability lines and correlations were left out for readability reasons

behavior. Career resilience seems to facilitate an adaptation process and enable individuals to become more effective at adapting to a disruption or change. This finding is in line with previous research (cf. [Beardslee, 1989](#); [Block and Block, 1980](#); [Caplan, 1990](#); [Lanz, 2015](#); [Rutter, 1985](#)). Also, other research on career self-management has found that mobility-oriented behavior is correlated differently with related constructs (e.g. organizational career management; [Sturges et al., 2002](#)) compared to the other three career self-management subscales. Perhaps, mobility-oriented behavior is more related to a lack of commitment ([Sturges et al., 2002](#)) than that it is an adaptive response.

Finally, we found a positive indirect relationship between career resilience and both salary and career satisfaction through career self-management over time. Employees with higher career resilience will earn more money and become more satisfied with their careers. Career resilience is thus not only a means to function optimally and cope with changes in today's increasingly turbulent career era but also enhances people's chances to achieve objective and subjective career success. However, career resilience had no direct and very little indirect relationship with career satisfaction, except through networking. Possibly, the importance of career resilience is much more tied to the event, while career satisfaction may have a more long-term character or connotation or maybe even necessary.

Implications for research and theory

The results of this study substantiate the role of career resilience as a career adaptability resource; it plays a vital role in the process of career development and toward career success. Agentive behavior such as career resilience and career self-management is not only enabled by dispositional factors, such as openness to change. Our study shows that characteristics of the current volatile labor market, such as the number of past employers, seem to enable individuals to grow and build a successful career. Encountering disruptions in a career seems to enable individuals to develop competencies to cope with setbacks. This finding bears important implications for research on sustainable careers, for example, where career resilience might take on a more crucial role. Negative adversities or "missed" career events may also hold potential for individuals' careers, while previous research often looked at promotions and positive changes. Future research might want to tap into this issue more into depth in how negative (career) setbacks still enables growth. For example, individuals who address past setbacks with a growth-based focus and attribute such events as a learning experience may enhance their career resilience ([Vough and Caza, 2017](#)).

Adversities like missed promotions might ensure individuals to construct growth-based stories that helped them to handle future disruptions. Although the results of this study already tap into this mechanism, the development and construction of careers ([Savickas, 2005, 2013](#)), narratives thereof and experienced career stage ([Cohen, 1991](#)) may unravel the process even better. For example, shortly after dismissal, outplacement consultants in Europe often draw the parallel with Kubler-Ross's grieving process (consisting of different stages like "denial," "acceptation," etc., [Kübler-Ross and Kessler, 2005](#)). Change and development over time are shaped by the meaning that individuals ascribe to them ([Arnold and Cohen, 2008](#); [Haynie and Shepherd, 2011](#)). Future research may also want to study the process at the time individuals face career disruptions. This may provide insight into who grows career resilience and who does not.

Employees with a long tenure or "senior" staff are believed to know more about "how things are done" or "how you can handle things better" ([Lanz, 2015](#)). Tenure enables individuals to gather and increase experience ([London, 1993](#); [Noe et al., 1990](#)). The current study may also imply that individuals with long tenure, who hold potential for the organization (for example, in terms of commitment and expertise), maybe more vulnerable and less able to cope with setbacks. This might relate to age-related studies that study which

factors limit individuals' ability to cope with changes. We might want to examine, for example, whether providing long-tenured individuals with more changes in their career might build their resilience and, therefore, protects this target group. These changes might also take place within the current company (e.g. job rotation). Research by [Choi \(2007\)](#), for example, shows that individuals with long tenure have a better capacity to use resources and find solutions for career-related problems; this can be exploited. If this target group is not approached for any changes, they remain underutilized. Individuals also appear to internalize a learning process based on encountering adversities ([Mishra and McDonald, 2017](#)), which indicates the positive potential of adversities.

Implications for practice

This study has important managerial implications. The results of this study indicate that tenure is negatively related to career resilience. Hence, human resource managers may want to target specifically these employees with practices aimed at increasing career resilience. For example, organizational training programs that are dedicated to enhancing resilience in senior employees may also have beneficial effects on people with longer tenure (see, e.g. [Papazoglou and Andersen, 2014](#); [Robertson et al., 2015](#)). These programs may increase awareness about lifestyle and the long-run effects of daily stressors, for example. Employers could be advised to identify those employees who are most likely to need this resource (i.e. career resilience) due to incidental or recurring adversity in their work. When supervisors are in close contact with their employees, it should be possible to specifically target these employees in need and provide them with tailored feedback. In this way, employees may be able to appraise a certain setback as an opportunity to learn and improve. It has been shown that supervisors can strengthen employee resilience by nurturing reciprocal trust-based long-term relations with their subordinates ([Caniëls and Hatak, 2022](#)). In turn, supervisors could be provided with tools to build and maintain good relationships with their subordinates. For example, it has been found that quality relationships can only materialize when a supervisor's span of control is not too broad ([Schyns et al., 2012](#)). Similarly, studies have indicated that designing supportive learning cultures can improve employee resilience ([Frese and Fay, 2001](#); [Caniëls and Baaten, 2019](#)).

Our results also showed that career resilience has a positive effect on career self-management in terms of networking, practical issues and drawing attention and a positive effect on salary over time. Since individuals no longer experience "secure" employment and organizations can no longer provide it, resilience is an essential survival tool for individuals ([Baruch, 2001](#)). Human resource managers can use our findings in their annual assessment of employees. During this assessment, employees may be questioned about their career resilience. Resilient employees may be further facilitated in career self-management techniques, whereas less resilient employees may be assisted with specific training programs (see e.g. [Papazoglou and Andersen, 2014](#); [Robertson et al., 2015](#)). Ways to increase career resilience include support for skill development and the creation of reinforcement contingencies ([London and Bray, 1984](#)), for instance, by supervisor mentoring ([Day and Allen, 2004](#)).

In order to support employees to find a place at another organization which has a better fit with their capabilities and needs, it could be worthwhile for employers to participate in mobility networks. A mobility network can make employers aware of possible alternative candidates for their position as well as can make employees aware of their capabilities and how these match with the need of other employers. The association between openness to change and career resilience may indicate that awareness of one's career resilience may generate more openness to change. Since adaptability is a crucial resource for employees as well as for employers, it appears to be valuable to invest in the career resilience of individuals.

Limitations

This study has a number of limitations, we discuss four of them. First, although we collected three-wave data, we cannot infer causal conclusions. (Quasi)Experimental design might uncover how (cognitive or coping) mechanisms take place. Moreover, this data was collected in a European country; this sets a specific scene with regard to careers; career characteristics and job transitions may be differently perceived in other countries. Second, we focused on a sample of active workers, which implies that these individuals were effective in their ability to bounce back after career disruptions. Individuals who were not able to do that and consequently lost their job were not included in our sample. Future research may follow up on employees over an even more extended period and in-depth than we did. Study individuals who became unemployed, and potential hindrances that disable individuals to bounce back. Third, this study was performed in one European country, although we see some similarities across countries with regard to careers, we cannot draw generalizations without studying potential differences in the future. Fourth, the measures of career characteristics do not capture all specifications and nuances. We did not measure the appraisal of the events. Although there are some counterarguments to do so (such as reappraisal can trigger an increased experience of an adversity while responding to a questionnaire, [Ritchie et al., 2016](#)), we do not know how individuals experienced the event with respect to allocations or appraisals which leaves the construction part of the career storyline out of our results and leaves us to derive interpretations from our quantitative findings. Also, about the measure on number of employers, there was no specific instruction given besides “For how many employers have you worked?” While this may be argued to be a valid indicator because it “measures” what is in the eye of the beholder and the individuals’ own experience, this also generates a limitation. On the one hand, because individuals can only recall what their memories tracked but also, on the other hand, because it may omit important, potentially crucial, (incremental) differences when everything is taken into consideration. We asked participants about their current job seniority, we did not ask about their longest job tenure which also provides information about individuals’ careers. Therefore, the current measure is limited to the current timeframe of participants and does not fully grasp prior or past career positions. For the measure of missed promotions, the timeframe was limited to the past six months. While the logic behind a six months time frame seems arbitrary at first glance, there are some counterarguments for making this timeframe shorter or longer. While the likelihood of occurrence is a counterargument for making it shorter, recollection and memory issues are counterarguments for a longer time frame. When the time frame increases, the likelihood of recollection decreases, and bias may play a critical role. We may derive from other types of traumas that one year can also be a valid approach for this type of event ([Stull et al., 2009](#)), and setting no time frame at all is an option in future research when memory and recollection bias is taken into account.

Conclusion

In this study, we wanted to focus on the impact of career changes, shocks and setbacks on career resilience and career management framed within the CCT. In doing so, we focus on factors that may enable or challenge individuals to recover and thrive on career changes in building a resilient career. Transitions can be both voluntary or forced, but the effective and constructive result translated in terms of career resilience indicates a positive internalization and a learning point or development of the individual, which indicates a process of internalization, transfer and, eventually, a resilient and successful career. With this study, we aspire to build on recent insights and contribute to contemporary theoretical foundations and aim to understand the story of career management and career resilience based on career changes and, with this, improve working lives for employers and employees.

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