

**When and Why do Negative Organization-Related Career Shocks Impair
Career Optimism?
A Conditional Indirect Effect Model**

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CAREER SHOCKS AND CAREER OPTIMISM

Abstract

Purpose – This study investigates when and why negative organization-related career shocks affect career optimism, which is a positive career-planning attitude. The indirect effect of negative organization-related career shocks on career optimism via job insecurity, and the role of perceived organizational career support as a first stage moderator, were investigated.

Design/methodology/approach – Three-wave time-lagged data from a sample of 728 employees in Switzerland was used. Time-lagged correlations, an indirect effect model, and a conditional indirect effect model with bootstrapping were used to test the hypotheses.

Findings – First, this study showed a significant negative correlation between negative organization-related career shocks (T1) and career optimism (T3), a positive correlation between negative organization-related career shocks (T1) and job insecurity (T2), and a negative correlation between job insecurity (T2) and career optimism (T3). Second, findings revealed that negative organization-related career shocks (T1) have a negative indirect effect on career optimism (T3) via job insecurity (T2). Third, perceived organizational career support (T1) buffers the indirect effect of negative organization-related career shocks (T1) on career optimism (T3).

Originality/value – This study provides an initial examination of the relationship between negative organization-related career shocks and career optimism by applying assumptions from the JD-R model and Conservation of Resources theory. Implications about how to deal with negative career shocks in HRM and career counseling are discussed.

Keywords – Career Optimism, Career Shocks, Career Support, Career Attitudes, Job Insecurity

Article Classification – Research paper

When and Why do Negative Organization-Related Career Shocks Impair Career Optimism? A Conditional Indirect Effect Model

Career optimism—an individual’s career-related attitude about expectations of best possible outcomes within future career development (Rottinghaus *et al.*, 2005)—is highly important for employees. Research showed that career optimism is positively related to career planning (Rottinghaus *et al.*, 2005), objective and subjective career success (Mcilveen *et al.*, 2013a, Spurk *et al.*, 2015, Spurk and Volmer, 2013), career goal engagement (Haratsis *et al.*, 2015), career adaptability (Tolentino *et al.*, 2014), and external marketability (Spurk *et al.*, 2015). Moreover, career optimism among employees is important for organizations because it is related to lower organizational turnover intentions (e.g., Baruch and Lavi-Steiner, 2015, Guan *et al.*, 2015), and higher employee performance (Young *et al.*, 2018, Garcia *et al.*, 2015).

Given the many potential positive effects of career optimism, it is important to better understand its possible predictors. Comparatively few studies have examined factors that might promote career optimism, including personality (Gunkel *et al.*, 2010, Mcilveen *et al.*, 2013a, McLennan *et al.*, 2017), different types of support (Garcia *et al.*, 2015, Puklek Levpušček *et al.*, 2018), and self-efficacy beliefs (Garcia *et al.*, 2015). Moreover, career optimism can be affected through career coaching interventions (Spurk *et al.*, 2015).

Despite these early studies, there is still much to be learned about the antecedents of career optimism, such as potentially *harmful contextual predictors* (e.g., negative organization-related career shocks; Eva *et al.*, 2020). Moreover, less is known about *mechanisms*, which explain why the assumed relations between career optimism and its predictors occurred; and *boundary conditions* under which the assumed relations are likely to occur. Moreover, as a general observation across studies on predictors and outcomes of career optimism, most of the

studies investigated student samples (Eva *et al.*, 2020) and showed relations between career optimism and, for instance, career decisiveness (Chatterjee *et al.*, 2015, Gunkel *et al.*, 2010) or career choice (Mcilveen and Perera, 2016, Young *et al.*, 2018). Career optimism—as a general career-related attitude about the future—is important throughout an employee’s entire career (Spurk *et al.*, 2015, Haratsis *et al.*, 2015), and thus it is important to examine career optimism among a diverse group of employees.

This study aims to address these gaps by focusing on negative organization-related career shocks—which are related to the organizational context under which careers evolve—as a potentially harmful predictor of employees’ career optimism. *Career shocks* are contextual antecedents of career development often occurring outside of the employees’ control, and vary in terms of predictability (Akkermans *et al.*, 2018). Moreover, career shocks can be either positively or negatively connoted, and trigger a thought and reinterpretation process of one’s future career. These characteristics of career shocks are explicitly expressed in their in-depth definition: “A career shock is a disruptive and extraordinary event that is, at least to some degree, caused by factors outside the focal individual’s control and that triggers a deliberate thought process concerning one’s career. The occurrence of a career shock can vary in terms of predictability, and can be either positively or negatively valenced” (Akkermans *et al.*, 2018, p. 4). Seibert *et al.* (2013, p. 172) described *negative career shocks* as “events that have a potential negative impact on the individual’s career”. In this study, we focus on *negative organization-related career shocks*, which may entail the experience of a workforce reduction, bankruptcy, or major ethical scandal at one’s workplace (Seibert *et al.*, 2013). We see these negative organization-related career shocks as fundamentally harmful antecedents of career optimism because employees’ careers frequently evolve within an organizational context (Rodrigues and

Guest, 2010, Inkson *et al.*, 2012). Negative organization-related career shocks therefore highlight the direct link between the organization and employees' future career perspectives (Quinlan, 2007, Mathisen *et al.*, 2017, Harney *et al.*, 2018, Probst, 2003).

Specifically, based on tenets of the job demands–resources model (JD-R; Bakker and Demerouti, 2007, Demerouti *et al.*, 2001) and the Conservation of Resources (COR) theory (Hobfoll, 1989, Hobfoll *et al.*, 2018) described below in more detail, this study hypothesizes and tests a conditional indirect effect model that presumes that negative organization-related career shocks negatively predict career optimism via increased job insecurity. Moreover, we presume that perceived organizational career support as an environmental resource moderates the negative relationship of negative organization-related career shocks on job insecurity (see Figure 1 for the conceptual model of this study).

We decided to investigate perceived organizational career support as moderator for several reasons. First, past research showed that organizational support is an important resource (Ten Brummelhuis and Bakker, 2012, Spurk *et al.*, 2019). Moreover, the buffering resource (i.e., support) stems from the same context (i.e., organization) as the predictors (i.e., shocks), and thereby shows a similar level of specificity (cf. principle of compatibility/correspondence below; Ajzen and Fishbein, 1977, Ajzen and Fishbein, 2005). Negative organization-related career shocks and perceived organizational career support together should thus shape the triggered thought process because they both represent an organizational impact on all employees. Therefore, the consideration of perceived organizational career support highlights the active role, responsibilities, and relevance of organizations for the future career development of their employees, especially in demanding times. Organizations, on the one hand, place (involuntary) demands on employees (i.e., negative career shocks), but on the other hand, at the same time can

also actively provide resources (i.e., support) for the employees, which, in turn, may foster sustainable career development in and outside the current organization. Therefore, organizations could preempt the negative effect of negative organization-related career shocks by maintaining adequate levels of perceived organizational career support. Hence, the investigation of perceived organizational career support is also of practical relevance.

Please insert Figure 1 about here

Testing the hypothesized model from Figure 1 contributes to the extant literature in several ways. First, by investigating how negative organization-related career shocks are linked with career optimism, we provide more knowledge about how a central career-related attitude is affected by environmental happenings. Second, by including job insecurity and perceived organizational career support in the model, we investigate how resource threat and resource protection mechanisms, respectively, affect the relation of negative organization-related career shocks with career optimism. By doing so, the study also provides further theoretical and empirical insights into how negative organization-related career shocks can be understood within resource frameworks. Third, our study specifically contributes to the career shocks literature because research on career shocks is still scarce (Akkermans *et al.*, 2018). Past research showed that career shocks, for example, affect early career decisions (Seibert *et al.*, 2013) and employees' withdrawal behavior (Holtom *et al.*, 2005). By investigating the effects of career shocks on career optimism, we extend this line of research to an important career-related attitude. Taken together, this study highlights how the context in which careers evolve (i.e., the current organization) might affect the future career development of the respective employee. In sum, we

propose that both negative organization-related career shocks and perceived organizational career support (i.e., contextual variables) can influence employees' perceptions of job insecurity and career optimism.

Hypotheses Development

The below described hypotheses are based on the JD-R model (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007), COR theory (Hobfoll *et al.*, 2018, Hobfoll, 1989), and assumptions associated with the conceptualization of career shocks and career optimism. In the following, the central aspects of the theories and models used are presented and applied to our model to be investigated.

JD-R model. The JD-R model (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007, Bakker and Demerouti, 2017) highlights the role of job demands and job resources. Job demands are proposed to be directly and positively related to strain, whereas job resources are assumed to be directly and positively related to motivation. Job demands and job resources are proposed to be negatively associated. Additionally, job demands moderate the direct effect of job resources on motivation, and job resources moderate the direct effects of job demands on strain. Moreover, strain and motivation are assumed to be related to organizational outcomes. Job demands are defined as “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are therefore associated with certain physiological and/or psychological costs” (Bakker *et al.*, 2003, p. 344). Past research has identified different kinds of demands (De Cooman *et al.*, 2013, Demerouti *et al.*, 2001, Nielsen *et al.*, 2011, Bakker and Demerouti, 2017), such as workload, time pressure, work–home interference, and risk perception. However, organizational aspects are also

mentioned in definitions of job demands (Bakker et al., 2003). In our model, negative organization-related career shocks are subsumed within demands.

Job resources are aspects “that are either/or: (1) functional in achieving work goals; (2) reduce job demands and the associated physiological and psychological costs; and (3) stimulate personal growth and development” (Bakker *et al.*, 2003, p. 344). Past research has explicitly located the source of job resources at different conceptual levels, for instance, the organization at large (e.g., organizational support), or the interpersonal level (e.g., supervisor support; Bakker *et al.*, 2003). We suppose that within the assumed model in this study, (perceived) organizational career support can be seen as a resource that is provided by the organization to its employees.

COR theory. We also applied tenets of COR theory (Hobfoll *et al.*, 2018, Hobfoll, 1989) because the JD-R model does not give detailed insights into resource processes compared to COR theory. The COR theory (Hobfoll *et al.*, 2018, Hobfoll, 1989) focuses (a) on the features of resources (e.g., resource loss, gain, maintenance), (b) on the interpretation of different perceptions as a threat to resources, and (c) on the importance of resource investment during times when resources are threatened. Based on the basic COR theory tenet, employees “strive to obtain, retain, foster, and protect those things they centrally value” (Hobfoll *et al.*, 2018, p. 106). Based on the resource investment principle, employees must invest resources, for instance, in order to protect against resource loss (Hobfoll *et al.*, 2018). Moreover, employees with greater resources, on the one hand, are less vulnerable to resource loss, and on the other hand, more capable of resource gain (Hobfoll *et al.*, 2018). Therefore, employees lacking sufficient resources are prone to suffer more from the impact of negative events (Van Den Broeck *et al.*, 2013). Investigating a conditional indirect effect model highlights the interplay between demands (i.e.,

negative organization-related career shocks) and a specific resource (i.e., perceived organizational career support) in the organizational context of employees.

Negative organization-related career shocks and career optimism. According to the Akkermans *et al.* (2018) assumptions pertaining to the conceptualization of career shocks, negative organization-related career shocks are novel, disruptive, and critical events for employees, and should therefore be salient to employees. Moreover, these salient negative organization-related career shocks should have a negative valence for employees (Akkermans *et al.*, 2018, Seibert *et al.*, 2013). Negative organization-related career shocks should trigger an interpretative thought process concerning one's career (Akkermans *et al.*, 2018, Morgeson *et al.*, 2015).

Negative organization-related career shocks include an initial subjective assessment of an objective event, and provoke a longer-term thought process, and therefore, these shocks presumably bring about physiological and/or psychological costs (Akkermans *et al.*, 2018, Morgeson *et al.*, 2015). Consequently, these negative organization-related career shocks can be conceptualized as demands within the JD-R model that go beyond the objective event per se, which occur at a brief and specific point in time. Following the tenets of the JD-R model (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007), high levels of demands are likely to result in negative consequences (here: less positive career-related attitudes, such as career optimism).

More specifically, the thought process, which is triggered by negative organization-related career shocks, should result in a negatively framed employee cognitive–attitudinal reaction (including negative thoughts about future career prospects). Expressed differently, employees who experience a negative career shock should *not* expect the best possible outcomes

within their future career development, which becomes manifest in lower levels of career optimism. Together with the above explained harmful effects of demands on well-being and attitudes (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007), negative organization-related career shocks should affect career optimism negatively.

Hypothesis 1: A negative organization-related career shock is negatively related to career optimism.

The indirect effect from negative organization-related career shocks to career optimism via job insecurity. Based on the tenets of COR theory (Hobfoll *et al.*, 2018), specific demands, such as negative organization-related career shocks, can be interpreted as a resource threat (i.e., salient environmental threat to employees' jobs; Shoss, 2017). Specifically, because negative organization-related career shocks threaten (i.e., condition) resources at work (e.g., employment, tenure, seniority), the mentioned thought process might increase job insecurity, defined as the perceived threat of job loss in the near future (Vander Elst *et al.*, 2014).

In the following, we describe the possible interpretation process in more detail. Employees who experience career shocks should think about the career shocks *per se* in more detail, and about possible consequences of these shocks. Negative organization-related career shocks can be direct signals of redundancies in the organization (i.e., the prospect of a reduction in workforce), or cause organizations to reduce their workforce because of a significant event (i.e., bankruptcy or major ethical scandal), which all should be related to perceptions of potential job loss in the future. For example, major ethical scandals damage the organization's reputation, which could lead to a smaller number of customers, resulting in a profit reduction and reduction of employees (Sims, 2009, O'Connell and Bligh, 2009). Past research supports this assumption

because individuals who experienced organizational changes (e.g., downsizing) more generally experienced more job insecurity (Keim *et al.*, 2014).

We assume that job insecurity negatively affects career optimism because the negative cognitive interpretation of job prospects and employment in the current organization could spill over to the broader context of employees' future careers. Concretely, job insecurity should be negatively related to career optimism because the current job is a fundamental aspect of individuals' career development (Arthur *et al.*, 1989, Hall, 2002). A loss of one's current job usually results in different fundamental and often unwanted or unexpected changes in one's future career and other life domains (Sverke *et al.*, 2002, Cheng and Chan, 2008). Hence, on average, job-insecure employees do not expect the best possible outcomes with regard to their future career development, leading to decreased career optimism. Additionally, past research supports this assumption in that it showed detrimental relations between job insecurity and job-related (e.g., organizational commitment, turnover intentions; Sverke *et al.*, 2002), and career-related, attitudes (e.g., occupational commitment, career commitment, career adaptability; Otto *et al.*, 2016, Yoon *et al.*, 2018, Klehe *et al.*, 2012). These results show that job insecurity can affect career-related attitudes, pertaining to the broader context of employees' careers. However, to the best of our knowledge, there exists only one study that has analyzed a similar concept of job insecurity and its relation to career optimism. This study found a large positive relation between job *security* perceptions (i.e., perceptions regarding short- and long-term demand for a given occupation) and students' IT career optimism (Young *et al.*, 2018).

Taken together, we assume an indirect effect from negative organization-related career shocks to career optimism via job insecurity.

Hypothesis 2: A negative organization-related career shock has an indirect negative effect on career optimism via higher levels of job insecurity.

The buffering role of perceived organizational career support. The principle of compatibility/correspondence (Ajzen and Fishbein, 1977, Ajzen and Fishbein, 2005) suggests that variables that are more closely aligned (with regard to their target, time, and context elements) will be more strongly related to one another than variables that exhibit a lesser degree of alignment. Therefore, for example, support in relation to the work context should show a stronger correlation with variables from the work context than, for example, support from the non-work context. For the current study, we thus focused on domain-specific (i.e., organizational) support. Moreover, content-wise, organizational support should specifically focus on career development as explained below in more detail. The negative career shocks examined here particularly endanger the interorganizational career development of employees. Therefore, it seems prudent to examine the extent to which organizations support employees' individual career development. For these reasons, we decided to investigate perceived organizational career support (e.g., mentoring and idiosyncratic deals). Perceived organizational career support can be seen as an organization's provided support for an employee's career development (Hirschi *et al.*, 2018).

Based on the JD-R model (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007), perceived organizational career support can be seen as a resource because perceived organizational career support is functional in achieving career goals, and stimulates career development. More precisely, perceived organizational career support can be seen as an environmental resource (Hobfoll *et al.*, 2018, Hobfoll, 1989). As already mentioned, resources can buffer the negative impact of demands (Demerouti *et al.*, 2001, Bakker and Demerouti,

2007, Van Den Broeck *et al.*, 2013). This aligns with the presumptions of COR theory (Hobfoll *et al.*, 2018) that available resources help to deal with resource threat and/or loss. Conversely, people who lack resources suffer more from resource loss, and are prone to be more exposed to the impact of negative events (Van Den Broeck *et al.*, 2013).

Based on the assumptions associated with the conceptualization of career shocks, negative organization-related career shocks should trigger a thought process (Akkermans *et al.*, 2018). We argue that the triggered thought process, and therefore the interpretation of negative organization-related career shocks, varies as a function of the availability of environmental resources (i.e., perceived organizational career support; Hirschi *et al.*, 2018, Spurk *et al.*, 2019) based on the JD-R model (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007) and COR theory (Hobfoll, 1989). The perception of external resource investment (i.e., perceived organizational career support) should help to protect against resource loss (Hobfoll *et al.*, 2018). Employees who perceive their organization as career-supportive are equipped with greater resources, and should thus be less vulnerable to resource loss (Hobfoll *et al.*, 2018). Therefore, the thought process should lead to different results (i.e., different levels of job insecurity) depending on the level of perceived organizational career support. Specifically, the thought processes associated with negative organization-related career shocks should lead to a less negative interpretation of the current situation and future career prospects under the condition that employees perceive organizational career support. As the interpretation is less negative, the relation between negative-organization-related career shocks and undesirable outcomes (e.g., high levels of job insecurity or low levels of positive organization- and career-related attitudes) should be weaker.

In other words, practically speaking, by assuming that the organization might provide alternative employment opportunities, mentoring, or supervisor support despite the overall

critical negative career shock situation, the thought process should result in lower levels of job insecurity. Therefore, employees who perceive more organizational career support should estimate the probability of losing one's job within the near future as smaller because the organization is still investing in them, which signals these employees' importance to the organization, and gives them the feeling that they are valued by the organization (Bal *et al.*, 2010). Hence, under conditions of higher perceived organizational career support, the threat potential of negative organization-related career shocks might be lower due to perceptions of different alternative opportunities provided by the organization compared to lower levels of perceived organizational career support. Taken together, perceived organizational career support should thus buffer the harmful effects of negative organization-related career shocks on job insecurity.

Empirical results provide indirect support for our assumptions. Although we are not aware of a study that has investigated perceived organizational career support as a buffering variable in the relationship between career shocks and job insecurity/career optimism specifically, past research investigated the buffering role of other, and similar kinds of, support. For instance, perceived organizational support (Karatepe, 2011, Conway and Coyle-Shapiro, 2012, Cooper-Thomas *et al.*, 2013, Xu and Yang, 2018, Bal *et al.*, 2010), or co-worker and supervisor support (Lo Presti and Mauno, 2016, Osca *et al.*, 2005), buffered the relations between different resources and their correlates. Moreover, as Schlossberg and Leibowitz (1980) highlighted in their study, one of the most effective buffers against the trauma of current job loss was a support system by the organization (e.g., job finding training), which should be related to perceptions of organizational career support. Based on past research and the tenets of COR theory (Hobfoll, 1989), we conceptualize perceived organizational career support as an

environmental resource in the organizational context that should buffer the negative indirect effect of negative organization-related career shocks on career optimism.

Hypothesis 3: The indirect effect from a negative organization-related career shock to career optimism via job insecurity will be weaker when perceived organizational career support is high.

Method

Procedure and Participants

Participants were recruited through a Swiss online access research panel company within the German-speaking part of Switzerland. As current research has shown, the use of online panel data seems to be appropriate because measures and results from online panel data have similar psychometric properties and criterion validities as conventional data in the field of applied psychology (Walter *et al.*, 2019). Moreover, a similar procedure including online panel data has been successfully applied by other researchers (Masuda *et al.*, 2012, Ng and Feldman, 2010a, Strauss *et al.*, 2012). The data collection was part of a larger project. For this reason, we are using this dataset for multiple publications. However, none of the constructs examined here are reused in future studies, except control variables. Participants had to fulfill different preconditions: (a) aged between 20 and 55 years at the first data collection, (b) living and working in Switzerland, and (c) employed for a minimum of 15 hours per week to assure that work had a certain importance within the life of the participants. The participants participated voluntarily, agreed with the participation in three online surveys, and agreed with the data privacy regulations. The participants received small incentives (i.e., money) for participation. However, none of the participants earned money with online surveys professionally.

The data collection took place in the second half of 2017 (T1 and T2) and the first half of 2018 (T3), with four months between each measurement occasion. From 2,387 reached employees, 1,509 answered the questionnaire at T1, which resulted in a response rate of 63% at T1. At T2, 1,014 employees completed the online survey again (29% drop-out rate at T2; 771 participants completed at T3, drop-out rate of 22%). The drop in the sample size between different time points is based on the design of data collection with planned participation rates over the measurement occasions (planned n : T1 = 1,500, T2 = 1045, T3 = 735). The aim of the data collection, following a planned missing data design (Little and Rhemtulla, 2013, Graham *et al.*, 2006), was, for example, to record 2/3 of the participants of T1 in T2 because these response rates are commonly found and used in time-lagged designs (Li *et al.*, 2019, Watson and Wooden, 2009). Therefore, data collection was halted when this objective was met. Additionally, employees showed different participation patterns (i.e., T1 + T2 + T3, T1 + T2, T1 + T3). For this study, we used data of participants who participated at all three times ($N = 728$). Moreover, included participants fulfilled the data quality requirements that were tested according to best-practice recommendations by DeSimone *et al.* (2015). The final data set used contained no missing data. More information about the data collection and different sample sizes are available on request from the corresponding author.

Control variables, negative organization-related career shocks, and perceived organizational career support were measured at T1, job insecurity at T2, and career optimism at T3. At time one, participants were, on average, 39.37 years old ($SD = 9.71$, range 20–55 years) and worked on average 38.43 ($SD = 5.94$) hours per week. In all, 47% of the participants were female (53% male). Participants had different, sometimes several, occupational trainings (i.e., 64% vocational training, 36% university of applied sciences degree, 23% university degree).

Participants worked in diverse jobs (e.g., computer scientist, doctor, merchant, nurse, salesperson), and were all employees from different organizations from a variety of industrial sectors (e.g., insurance and banking sector, public health, education, private service industries, manufacturing sector).

Measures

Cronbach's alphas of all multi-item measures within our sample can be seen in Table 1. All included scales exhibited sufficient internal consistency, with Cronbach alphas ranging from .82 to .94 (Nunnally *et al.*, 1967).

Negative organization-related career shocks. Negative organization-related career shocks were measured with one out of two negative career shock items developed by Seibert *et al.* (2013). We did not investigate the second item because it relates to the relationships between employees in one organization (i.e., mentor departure). Therefore, the second item is unrelated to a potential threat of employment, and does not measure clearly negative organization-related career shocks, as defined in the present study. Moreover, Seibert *et al.* (2013) included the items in their analysis separately, highlighting that the single item is a content-valid and reliable way to assess negative organization-related career shocks. The respondents were asked to rate the degree to which an event ("Your organization went through a significant negative event, such as a reduction-in-workforce, bankruptcy, or major ethical scandal") affected their career on a 5-point Likert-type scale ranging from 1 (*have not experienced it = no impact*) to 5 (*had a large impact*).

Perceived organizational career support. Perceived organizational career support was measured with the so-called subscale of the Career Resources Questionnaire (Hirschi *et al.*, 2018). The Career Resources Questionnaire is a reliable and valid measure which shows

convergent validity with existing other support scales, and criterion validity with indicators of career success. Participants were asked to rate the extent to which they agreed or disagreed with three different statements, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items are “My organization actively supports my career development” and “My current employer supports my intended career”.

We measured *job insecurity* with the widely used 4-item scale by De Witte (2000), that was thoroughly validated by Vander Elst *et al.* (2014). Respondents were asked to rate these items on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). A sample item is “I think I might lose my job in the near future”.

Career optimism. Career optimism was measured with the well-accepted and validated three item short version of the Career Futures Inventory (Mcilveen *et al.*, 2013b, Spurk and Volmer, 2013). Items are “Thinking about my career inspires me”; “I get excited when I think about my career”; and “I am eager to pursue my career dreams”. Participants answered on a six-point Likert-type scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

We included chronological age (in years), gender (0 = *female*, 1 = *male*), organizational tenure in years, contract type (0 = *permanent*, 1 = *temporary*), leadership position (0 = *no*, 1 = *yes*), and (occupational) education (0 = *non-academic* [e.g., vocational training], 1 = *academic* [e.g. university degree]) as control variables because these variables are potentially related to negative organization-related career shocks and/or job insecurity, and/or career optimism (Keim *et al.*, 2014, Näswall and De Witte, 2003, Gunkel *et al.*, 2010, Harney *et al.*, 2018, Zheng *et al.*, 2014). Specifically, these variables (e.g., education or leadership position) are theoretically and empirically linked to different career opportunities (Day, 2000, Lu *et al.*, 2016,

De Vos *et al.*, 2009), and therefore might affect relations between career shocks and career optimism.

Dropout Analyses

The results of several independent t-tests showed that those who participated only once or twice (= excluded from the data analyses) did not differ from participants who participated at all three times (= included in data analyses) concerning the relevant constructs of our model at T1. Negative organization-related career shocks did not differ between included ($M = 2.43$, $SD = 1.58$) and excluded ($M = 2.44$, $SD = 1.58$) participants ($t[1441] = .20$, $p > .05$). Perceived organizational career support also did not differ between included ($M = 2.89$, $SD = 1.11$) and excluded ($M = 2.91$, $SD = 1.15$) participants ($t[1441] = .20$, $p > .05$). Moreover, job insecurity at T2 did not differ between included ($n = 728$; $M = 2.08$, $SD = 0.85$) and excluded ($n = 261$; $M = 2.05$, $SD = 0.90$) participants ($t[987] = -.47$, $p > .05$).

Results

Confirmatory Factor Analyses

We compared four different models via confirmatory factor analysis (CFA) using Mplus Version 8.1/8.4 (Muthén and Muthén, 1998-2017). We tested and compared one theoretically plausible *Model 1* (four intercorrelated first-order factors that represent the constructs from Figure 1) with *Model 2* (general factor model: all 11 items loading on one first order factor), *Model 3* (two intercorrelated first-order factors: factor 1 consists of three perceived organizational career support items and three career optimism items, factor 2 consists of one career shocks item and four job insecurity items), and *Model 4* (three intercorrelated first-order factors: factor 1 = career shocks, factor 2 = perceived organizational career support, factor 3

consists of four job insecurity items and three career optimism items). In all CFAs maximum likelihood estimation was used.

We evaluated the model fit based on different model fit indices: comparative fit index (CFI; Kline, 2011), Tucker–Lewis index (TLI; Schreiber, 2017), standardized root mean square residual (SRMR; Hu and Bentler, 1998), and the root mean square error of approximation (RMSEA; Kline, 2011). Models with CFI and TLI values greater than .95 and RMSEA and SRMR values less than .08 indicate a good model fit (Schreiber, 2017, Hu and Bentler, 1998). Model 1 ($\chi^2 [39] = 77.85, p < .001$; CFI = .99, TLI = .99, SRMR = .03, RMSEA = .04) showed good overall model fit (Kline, 2011, Hu and Bentler, 1998, Schreiber, 2017). Model 2 ($\chi^2 [44] = 2995.19, p < .001$; CFI = .45, TLI = .32, SRMR = .20, RMSEA = .30), Model 3 ($\chi^2 [43] = 1747.26, p < .001$; CFI = .68, TLI = .60, SRMR = .15, RMSEA = .23), and Model 4 ($\chi^2 [42] = 1809.68, p < .001$; CFI = .67, TLI = .57, SRMR = .16, RMSEA = .24) showed bad overall model fit (Kline, 2011, Hu and Bentler, 1998, Schreiber, 2017).

Model comparisons showed that Model 1 was preferable over Model 2 ($\Delta\text{Chi}^2 = 2917.34, \Delta df = 5, p < .001, \Delta\text{CFI} = .54$), Model 3 ($\Delta\text{Chi}^2 = 1669.41, \Delta df = 4, p < .001, \Delta\text{CFI} = .31$), and Model 4 ($\Delta\text{Chi}^2 = 1731.84, \Delta df = 3, p < .001, \Delta\text{CFI} = .32$). The results of the confirmatory factor analyses and model comparisons suggest that Model 1 shows the best and good model fit and the study variables can be empirically distinguished.

Bivariate Relations

Table 1 summarizes the means, standard deviations, and correlations among the control and the study variables. The significant correlations between the control and study variables were around .20 or below. Age was positively correlated with negative organization-related career shocks and negatively correlated with perceived organizational career support and career

optimism. Moreover, men showed higher levels of job insecurity, and organizational tenure was negatively correlated with career optimism. Those on temporary contracts experienced higher job insecurity than those on steady contracts. Leadership position was positively correlated with perceived organizational career support, and career optimism and leadership position was negatively related to job insecurity. Academics experienced higher levels of perceived organizational career support and career optimism than non-academics.

Negative organization-related career shocks were negatively correlated with career optimism ($r = -.09, p < .05$). Moreover, negative organization-related career shocks were positively correlated with job insecurity ($r = .21, p < .001$), and job insecurity was negatively related to career optimism ($r = -.27, p < .001$). Hence, the negative organization-related career shocks–job insecurity link and job insecurity–career optimism link showed the assumed directions of time-lagged relations between the model variables (cf. Figure 1).

Please insert Table 1 about here

Testing the Hypothesized (conditional) Indirect Effect Model

We used PROCESS (Version 3; Hayes, 2018) within SPSS Version 25 to estimate the indirect effect model (Model 4) and the first stage conditional indirect effect model (Model 7) with 5,000 bootstrap samples. We conducted these analyses with and without the above described six control variables, and the results remained the same regarding (a) significance and non-significance of parameter estimates, and (b) the signs of the parameter estimates (cf. Table 2–3). We thus report the following results without controls because these results are based on a higher degree of power, and because of reasons concerning straightforward interpretability. The

complete results of the indirect effect model with and without control variables are available on request from the corresponding author.

Indirect effect model. Results from the indirect effect model without considering the moderator indicated that the total effect of negative organization-related career shocks on career optimism was negative and significant ($b = -0.07$, $CI_{95\%} = [-0.118, -0.015]$), supporting Hypothesis 1. The results also showed that the indirect effect of negative organization-related career shocks on career optimism via job insecurity ($b = -0.04$, $CI_{95\%} = [-0.058, -0.021]$) was significant because zero was not included in the confidence interval, supporting Hypothesis 2. The direct effect of negative organization-related career shocks on career optimism was not significant ($b = -0.03$, $SE = 0.03$, $p > .05$) after considering the explaining variable of job insecurity. Negative organization-related career shocks were positively associated with job insecurity ($b = 0.11$, $SE = .02$, $p < .001$), and job insecurity was negatively associated with career optimism ($b = -0.34$, $SE = 0.05$, $p < .001$).

Conditional indirect effect model. The results from the conditional indirect effect model can be seen in Table 2 and Table 3. In support of Hypothesis 3, the indirect effect from negative organization-related career shocks to career optimism via job insecurity was moderated by perceived organizational career support, such that the indirect effect was weaker when perceived organizational career support was higher (see Table 3). The indirect effect was more negative at low ($effect_{low(-1SD)} = -0.05$, $CI_{95\%} = [-0.080, -0.025]$), rather than medium ($effect_{medium(M)} = -0.03$, $CI_{95\%} = [-0.052, -0.018]$) and high ($effect_{high(+1SD)} = -0.02$, $CI_{95\%} = [-0.034, -0.002]$) levels of perceived organizational career support.

The nature of the interaction effect can furthermore be seen in Figure 2. Finally, a closer look at the explained variances in the analyzed model revealed that more variance was explained

within job insecurity ($R^2_{\text{without controls}} = .16, R^2_{\text{with controls}} = .19$) than within career optimism ($R^2_{\text{without controls}} = .07, R^2_{\text{with controls}} = .13$).

 Please insert Table 2 about here

 Please insert Table 3 about here

 Please insert Figure 2 about here

Additional Analyses

Conditional indirect effect models. Due to the suggestion of an anonymous reviewer we tested two models, which additionally included age as a moderator. Past job insecurity research discussed, if age might be considered as predictor of job insecurity and moderator of the predictor–job insecurity link and the job insecurity–outcome link (Keim *et al.*, 2014, Sverke *et al.*, 2002). Meanwhile, studies have shown that age moderates the job insecurity–outcome link. Cheng and Chan (2008) showed that the link between job insecurity and turnover intention was stronger among younger than older employees. Moreover, age moderates the link between job insecurity and attitudinal outcomes, for instance, intrinsic job satisfaction (Yeves *et al.*, 2019).

We conducted the additional analyses with and without five control variables (i.e., gender, organizational tenure, contract type, leadership position, and educational level). The results remained the same regarding (a) significance and non-significance of parameter

estimates, and (b) the signs of the parameter estimates (cf. Table 4-5). We thus report the following results without controls.

The first post-hoc model is a conditional indirect effect model which additionally included chronological age as a second-stage moderator of the job insecurity–career optimism link (PROCESS model 21). In this post-hoc model, the indirect effect from negative organization-related career shocks to career optimism via job insecurity was moderated by (a) perceived organizational career support (negative organization-related career shocks–job insecurity link) and (b) age (job insecurity–career optimism link). The indirect effect was larger (i.e., more negative) for older employees perceiving low levels of organizational career support ($effect = -0.07$, $CI_{95\%} = [-0.105, -0.034]$) and lower for young employees perceiving high levels of organizational career support ($effect = -0.01$, $CI_{95\%} = [-0.022, -0.001]$; see Table 4 and Table 5). More variance was explained within job insecurity ($R^2_{\text{without controls}} = .16$, $R^2_{\text{with controls}} = .19$) than within career optimism ($R^2_{\text{without controls}} = .10$, $R^2_{\text{with controls}} = .14$).

Please insert Table 4 about here

Please insert Table 5 about here

The nature of the interaction effect of job insecurity and age on career optimism has been visualized in Figure 3. The relation between job insecurity and career optimism was more negative for older employees ($b = -0.46$, $p < .001$) than for younger employees ($b = -0.20$, $p < .01$).

Please insert Figure 3 about here

The second post-hoc model, which additionally included age as a moderator of the negative organization-related career shocks–job insecurity link (PROCESS model 60), showed no significant two-way interaction of age and negative organization-related career shocks, and no significant three-way interaction of age, negative organization-related career shocks, and perceived organizational career support on job insecurity.

Incremental validity. Due to the suggestion of an anonymous reviewer, we explored whether job insecurity could explain variance in career optimism above and beyond career shocks. We performed a multiple regression analysis, where we regressed career optimism on negative organization-related career shocks in the first step. In the second step, we included job insecurity to assess whether job insecurity significantly explains additional variance in career optimism. Job insecurity explained significant variance beyond negative organization-related career shocks in career optimism ($\Delta R^2 = .06$; $p < .001$).

Discussion

The aims of this study were to investigate the relation between negative organization-related career shocks and career optimism, including an explaining mechanism and a potential buffer of the assumed harmful effects of negative career shocks on career-related attitudes. Taken together, the results supported the hypothesized conditional indirect effect model and enrich past research on potential predictors of career optimism. Specifically, the results contribute to a better understanding of *when* and *why* negative organization-related career shocks affect career-related attitudes via job insecurity. Additionally, based on our sample of employees,

we directly fill a gap of past research that mostly investigated predictors and outcomes of career optimism in student samples. Overall, the study contributes to the extant career shocks, job insecurity, and career optimism literature because it extends the research of possible relations between career shocks and career-related attitudes, investigating the variables of interest in a sample of employed adults.

Theoretical Implications

The results confirmed our assumptions based on the JD-R model (Bakker and Demerouti, 2007, Demerouti *et al.*, 2001) and COR theory (Hobfoll, 1989, Hobfoll *et al.*, 2018) that negative organization-related career shocks can affect career-related attitudes (i.e., career optimism) of employees. Consistent with previous research on organizational events and job insecurity perceptions (Keim *et al.*, 2014), this study found a positive relation between negative organization-related career shocks and job insecurity, providing further support for the assumption that negative organization-related career shocks can be seen as a threat to work-related resources, which results in the subjective experience of job insecurity (Shoss, 2017). The positive relation between negative organization-related career shocks and job insecurity, and the negative relation between job insecurity and career optimism, serve to support the assumptions of COR theory (Halbesleben *et al.*, 2014) regarding the notion that potential resource loss is harmful and that perceptions of organizational events can have effects on broader future-oriented career attitudes. As such, these results support our hypothesis that negative organization-related career shocks and job insecurity can negatively affect future-oriented attitudes toward one's career more broadly.

The supported effect from negative organization-related career shocks to job insecurity and career optimism supports the assumption of Akkermans *et al.* (2018) that an interpretative

process occurs between the perception of an organizational event (i.e., negative organization-related career shock) and an employee's reaction (i.e., job insecurity and career optimism) to that event. Additionally, the results are in line with the integrated model of job insecurity (Sverke and Hellgren, 2002), which assumes contextual happenings as antecedents of job insecurity, and different attitudes (e.g., job and organization-related attitudes) as consequences of job insecurity.

Moreover, investigating and supporting the buffering role of an environmental resource (i.e., perceived organizational career support) contributes directly to past literature by identifying possible moderators for the indirect effect from negative organization-related career shocks to career optimism. Specifically, we observed that the negative indirect effect was moderated, but still significant, at high and low levels of the moderator. This shows that the harmful effects of negative organization-related career shocks cannot easily be fully mitigated when considering one environmental resource in the model. One explanation for this might be that more than one resource is needed to buffer the harmful effects of negative organization-related career shocks. This assumption is in line with tenets of COR theory (Hobfoll, 1989), which highlight the beneficial role of environmental resources as protection from resource loss (Hobfoll *et al.*, 2018).

Additionally, we addressed contextual organizational aspects as demands (i.e., negative organization-related career shocks) and resources (i.e., perceived organizational career support), and therefore apply the JD-R model (Bakker and Demerouti, 2007, Bakker and Demerouti, 2017) to more contextual organizational variables (for similar approaches see e.g., Nielsen *et al.*, 2011, Clements and Kamau, 2018, De Cooman *et al.*, 2013) as recommended by Van Den Broeck *et al.* (2013), instead of directly to job-related demands and resources. This approach could help to generate more detailed insights into the relation between, for example, human resource policies and the employees' outcomes at different levels of analysis (Van Den Broeck *et al.*, 2013), for

instance, job- and career-related attitudes. On the one hand, organizations can generate demanding situations (e.g., negative career shocks) or human resource policies (e.g., temporary contracts, contract work), which differ in the amount of controllability by the organizations. On the other hand, organizations can proactively provide employees with human resource policies (e.g., career development strategies), which can be seen as organizational resources. This illustrates the relevance of resources and demands at the level of the organization as a source.

Additionally, from a COR theory (Hobfoll, 1989, Hobfoll *et al.*, 2018) perspective, our study (a) highlights that negative organization-related career shock can be interpreted as a threat to resources in terms of job insecurity, and (b) supported the COR corollary 1 (Hobfoll *et al.*, 2018) that individuals who lack resources are more vulnerable to a potential resource loss (i.e., the stronger effect of career shocks under conditions of low perceived organizational career support).

Regarding the age-related additional analyses, results of a meta-analysis (Ng and Feldman, 2010b) are in line with our findings that age per se is not related to job insecurity. From a theoretical point of view, chronological age can be seen as either a buffer or a booster. On the one hand, older workers had more time for resource gain during their lives, may have invested more time into skill development, and have more expertise based on their occupational tenure. Additionally, based on more experiences in the labor market, older workers more often successfully coped with difficult experiences and situations in the past, which should therefore result in a weaker relation between job insecurity and career optimism. On the other hand, the side-bet theory (Becker, 1960) reasons that side-bets tend to increase over one's life span (i.e., chronological age) because individuals' investments aggregate over time. Therefore, a job loss should be more harmful for older than younger workers because of higher costs when losing

one's job. Additionally, in many countries around the world, potentially due to age discrimination, it is more difficult for older workers than for younger workers to find a new job (Perry *et al.*, 1996). In Switzerland, for example, where the labor market participation of older workers (i.e., 50+) is very high by international standards, the group of older unemployed people is clearly disproportionately affected by long-term unemployment (State Secretariat for Economic Affairs, 2019). Therefore, older employees should show a stronger relation of job insecurity with career optimism, which was the result of our additional analyses. The interaction effect of job insecurity and age on career optimism was small, but significant. Small effects are in line with past research. For instance, Yeves *et al.* (2019) showed a significant interaction effect of job insecurity and age on job satisfaction (i.e., job-related attitude).

Limitations of the Study and Directions of Future Research

Despite its contributions, this study has limitations that should be addressed in future research. First, the data collection is based on an online survey and self-reports, resulting in the possibility of a common method bias. However, the results of our CFA analyses showed that there is a reduced risk of a common method bias within our study. More importantly, the study used a time-lagged research design, reducing the problem of a common method bias to a certain degree (Podsakoff *et al.*, 2012). As recommended by Podsakoff *et al.* (2003), future research should (a) reduce common method bias by taking different possible sources of common method bias into account (e.g., common source or rater, item characteristics), and (b) use statistical techniques in latent structural equation modeling for controlling common method biases (e.g., controlling for the effects of an unmeasured latent methods factor, or using multitrait–multimethod analyses). An alternate option would be for future research to also examine objective predictors of career optimism, such as objective indicators of career shocks (e.g.,

objective events, for instance, organizational downsizing or bankruptcy) or organizational career support actually provided by the organization (e.g., use of personnel archive data, personnel development activities, or objective network structures). Future research could also use a multi-level perspective. It could be investigated how objective events in the environment (e.g. economic crisis) impact organizations and employees, representing top-down direct effects, based on the event system theory (Morgeson *et al.*, 2015). Organizations could react with a reduction in workforce, which consequently could increase employees' job insecurity (top-down direct effect), which, in turn, could reduce career optimism at the individual level (single-level effect).

Second, although we used a time-lagged design, this does not allow us to infer causality between the variables. Future research should collect data using a full longitudinal design, collecting all variables at all times, or use an experimental approach (e.g., vignette study) to examine more closely how the variables in our model affect each other over time.

Third, we used a time-lag of four months, and were not able to investigate shorter- or longer-term effects. However, a time lag between two and six months was often used in past research investigating career-related attitudes (Zacher, 2014, Guan *et al.*, 2017) because it allows for the investigation of career related processes, which typically do not occur on shorter time spans (e.g., daily basis). Furthermore, longer time spans (e.g., several years) might be too long to detect lagged effects of negative organization-related career shocks on career optimism. In addition, prolonged periods of time pose the danger of employees having left the organizations in which they experienced the shocks (in)voluntarily in the meantime, and thus a career transition has already taken place. Future research could also collect data using a full longitudinal design to

gain better insights into the temporal relations between the variables and possible explanatory mechanisms.

Fourth, career shocks were operationalized with a single item, investigating negative organization-related career shocks (i.e., reduction-in-workforce, bankruptcy, major ethical scandal). This operationalization is an appropriate way of investigating these kind of negative career shocks, and has already been used in past research (Seibert *et al.*, 2013). However, future research might investigate the three components (i.e., reduction-in-workforce, bankruptcy, major ethical scandal) separately. By doing so, it would be possible to investigate if one of these negative organization-related career shocks has stronger effects than the others, or if specific combinations are especially harmful. For instance, Blokker *et al.* (2019) built count variables, which captured the aggregated scores of different shocks to investigate the combined effects of different negative career shocks. Moreover, future research should identify additional organization-related career shocks (e.g., unexpectedly losing one's job; Akkermans *et al.*, 2018), in terms of additions to the three here used shocks (i.e., reduction-in-workforce, bankruptcy, major ethical scandal), which were identified by Seibert *et al.* (2013). In addition to the effects of negative career shocks on career optimism, it would be desirable to investigate the possible positive effects of positive career shocks on career optimism. Receiving an unexpected promotion and receiving an award are examples of positive career shocks (Akkermans *et al.*, 2018). Moreover, following recommendations by Akkermans *et al.* (2018), future research should investigate the frequency, predictability and controllability, valence, duration, and source of the career shock. The event system theory (Morgeson *et al.*, 2015) has proposed that events will differentially affect employees based on ascertaining the novelty, disruptiveness, and

importance of the events. However, in order to test such assumptions, these three components need to be measured in appropriate ways.

In addition to the limitations and the associated recommendations for future research, our study results provide important starting points for future research. Three key issues are explained in the following.

First, we focused on one possible contextual harmful predictor (i.e., negative organization-related career shocks), and investigated the processes associated with this predictor in more detail. Building upon this present study, future research might also investigate other contextual (e.g. contract type, type of career path) and personal (e.g. career self-management, career orientations) predictors of career optimism, and their associated explanatory mechanisms, in more detail. Thereby, the amount of explained variance in career optimism could be increased. Although the explained variance in our study is not very large, it is nonetheless comparable with other studies (e.g., Pavlova and Silbereisen, 2013, Puklek Levpušček *et al.*, 2018, Garcia *et al.*, 2015). Based on the JD-R model (Demerouti *et al.*, 2001, Bakker and Demerouti, 2007), it could be assumed that through an energetic process, demands are linked to burnout, and job resources are linked to work engagement via a motivational process, which, in turn, will then affect attitudes (Van Den Broeck *et al.*, 2013).

Second, future research could also investigate additional moderating variables (e.g., personality, key resources), which could buffer or fully eliminate the harmful effects of negative organization-related career shocks on employee reactions and career attitudes. Based on the tenets of the COR theory, personal resources (e.g., key skills and personal traits, such as self-efficacy), and energy resources (e.g., knowledge and money) should be taken into account.

Third, in line with the Akkermans *et al.* (2018) assumptions, we assume a thought process triggered by negative organization-related career shocks, which results, for instance, in job insecurity. Future research should investigate this thought process in more detail. For example, qualitative studies via interviews could help to better understand what employees think about career shocks, how they perceive them, and which possible outcomes for career development are expected.

Practical Implications

Our study also has some practical implications for organizations and employees. Nowadays, negative organization-related career shocks are an important topic for business consultancies and HR departments because many employees are confronted with career shocks due to organizations having more frequent changes, for instance, restructurings (Kieselbach *et al.*, 2009). This leads to a practical implication for HR strategies in organizations during times that might lead to negative organization-related career shocks for their employees. Past research showed, for instance, that organizational-level interventions could help to reduce negative effects of career shocks, leading to a reduction in job insecurity (Abildgaard *et al.*, 2018). Organizations could thus implement interventions, which help employees in times of negative organization-related career shocks, to maintain career optimism and to not enhance job insecurity. First, organizations could provide employees with realistic information about the consequences of the negative organization-related career shocks for the organization (e.g., profit decrease) and the planned consequences for employees, for instance, planned downsizing. This would lead to more fact-oriented comprehensive information, and therefore less room for interpretation, which could help to reduce job insecurity. Second, based on the buffering role of perceived organizational career support on the positive relation between negative organization-related career shocks and

job insecurity, organizations could provide employees with organizational support, for instance, organizational career support in the form of mentoring programs, talent management, or idiosyncratic (career-focused) deals.

In addition to the possibilities mentioned above to *respond* and *react* to existing shocks as well and supportively as possible, companies should *act* to prevent such negative organizational events from occurring. Bal *et al.* (2010) have already pointed out that the active role of the organization is important, and that in the longer term, this may mean lower costs for the organization. In our opinion, organizations at least implicitly have a responsibility for the career development of their employees beyond the period in which employees are employed by the organization. This implies that organizations should act and decide in an employee-friendly way, especially within troubling contextual situations, and thus contribute to sustainable career development, which is highly important nowadays (Newman, 2011, De Vos and Van Der Heijden, 2015, Van Der Heijden *et al.*, 2016).

Career counselors should be aware of the possible relation between the experience of negative career shocks and career optimism of their clients. This knowledge could influence counseling strategies with clients who experienced a career shock. First, career counselors could help clients to reflect on the negative organization-related career shocks and support realistic interpretations of these and their likely consequences. Second, career counselors could help clients to develop strategies on how to best deal with shock in a way that enhances personal agency and a positive outlook for the future. For this, counselors could also encourage their clients to obtain organizational career support, as well as social career support from friends and family.

Conclusion

To conclude, based on the JD-R model, assumptions associated with the conceptualization of career shocks and career optimism in general, and COR theory, this research investigated the harmful effects of negative organization-related career shocks on career optimism. The findings provide new insight into the explanatory mechanism of job insecurity and the buffering effects of perceived organizational career support. The results of this study thereby also highlight the critical role that the context in which careers are evolving can have on employees' perceptions about future career development.

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CAREER SHOCKS AND CAREER OPTIMISM

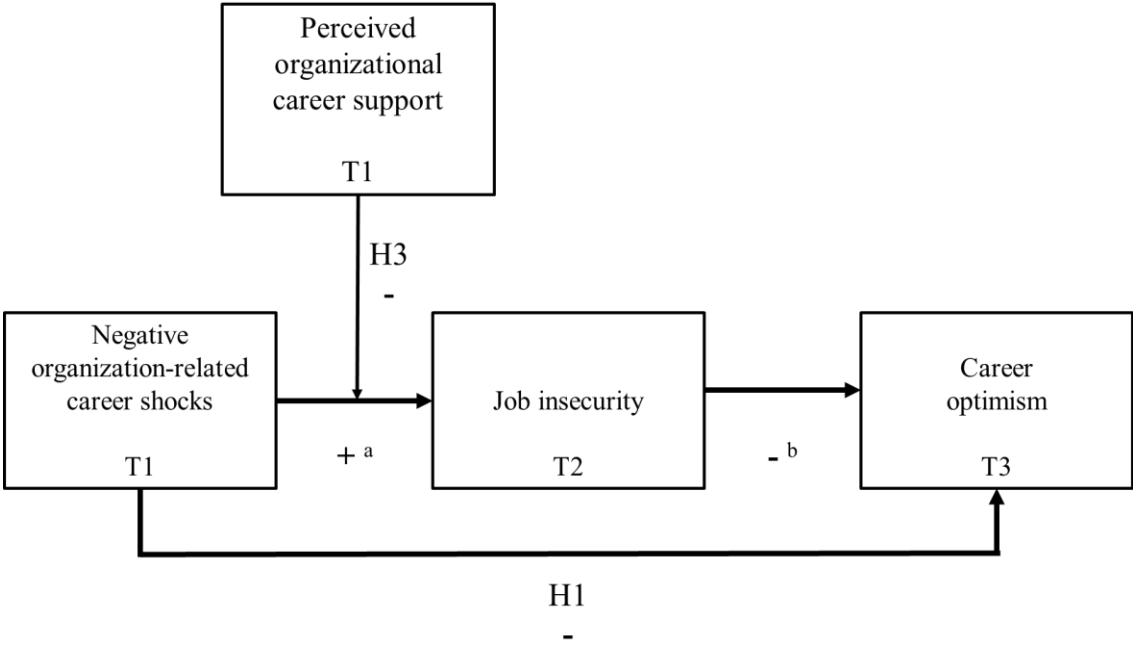


Figure 1. Proposed sequential conditional indirect effect model from negative organization-related career shocks to career optimism.

Note. H2: Negative indirect effect of negative organization-related career shocks on career optimism via job insecurity ($= a*b$). H3: Conditional indirect effect.

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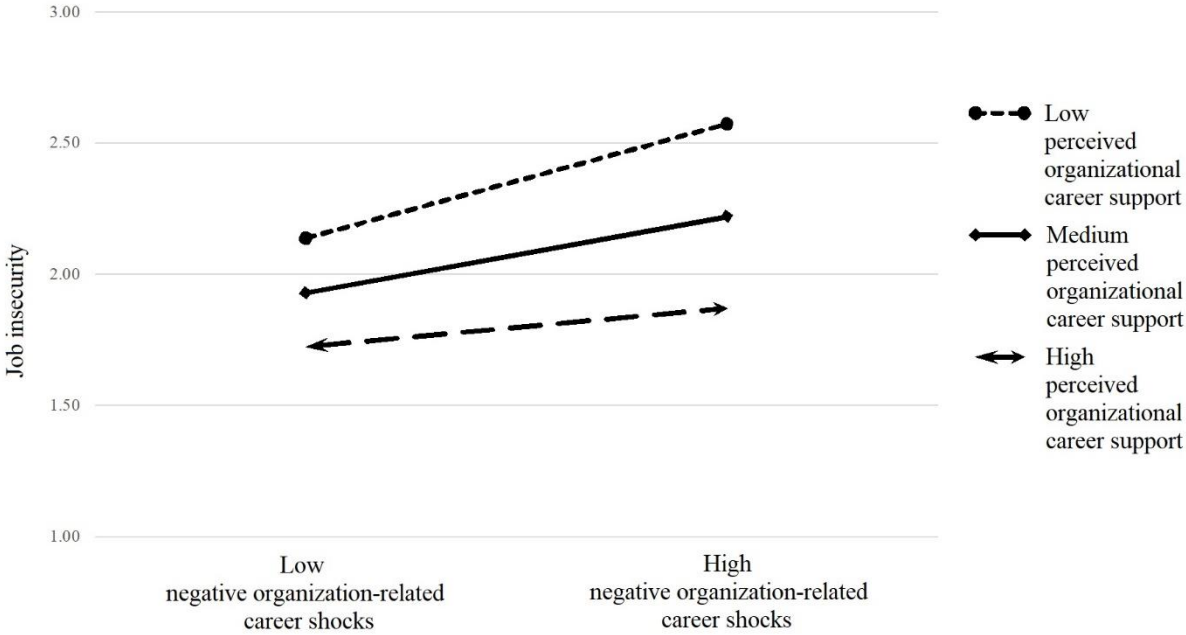


Figure 2. Interaction plot of the relationship between negative organization-related career shocks and job insecurity at different levels of perceived organizational career support.

Note. High and low levels of negative organization-related career shocks and perceived organizational career support represent one standard deviation above and below the mean, respectively.

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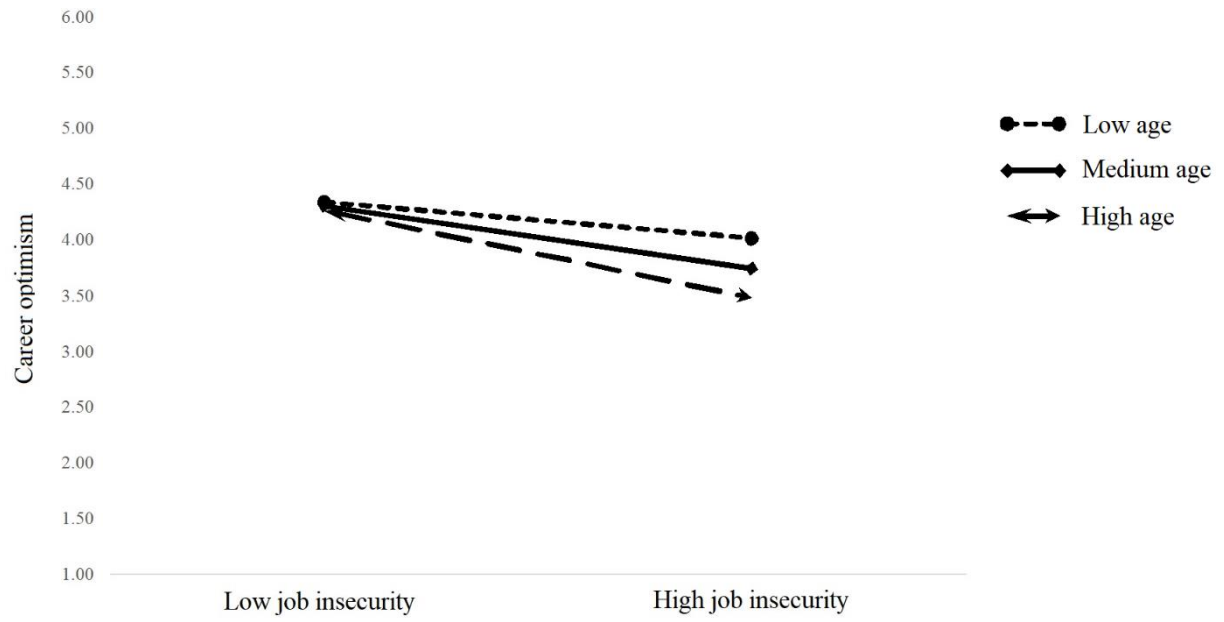


Figure 3. Interaction plot of the relationship between job insecurity and career optimism at different age levels.

Note. High and low levels of job insecurity and age represent one standard deviation above and below the mean, respectively.

CAREER SHOCKS AND CAREER OPTIMISM

Table 1

Descriptive Statistics, Intercorrelations, and Cronbach's alphas.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1 Age T1	39.37	9.71	-									
2 Gender T1	0.53	0.50	.07	-								
3 Organizational tenure T1	6.82	7.00	.43***	.14***	-							
4 Contract type T1	0.03	0.17	-.07	.00	-.07	-						
5 Leadership position T1	0.55	0.50	.12**	.21***	.10**	-.06	-					
6 Occupational education T1	0.55	0.50	-.04	.09*	-.10*	-.01	.33***	-				
7 Negative organization-related career shocks T1	2.43	1.58	.15***	.05	.03	-.04	.05	.01	-			
8 Perceived organizational career support T1	2.89	1.11	-.13**	.03	-.03	-.05	.23***	.10**	-.08*	.94		
9 Job insecurity T2	2.08	0.85	.07	.08*	.06	.13**	-.14***	-.04	.21***	-.34***	.82	
10 Career optimism T3	4.02	1.12	-.15***	.03	-.08*	-.01	.21***	.13**	-.09*	.31***	-.27***	.93

Note. $N = 725-728$; values in diagonal are Cronbach's alphas; age, gender (0 = female, 1 = male), occupational tenure in years, contract type (0 = permanent, 1 = temporary), educational background (0 = non-academic, 1 = academic), leadership position (0 = no, 1 = yes); *** $p < .001$, ** $p < .01$, * $p < .05$.

CAREER SHOCKS AND CAREER OPTIMISM

Table 2

Unstandardized Results of the Conditional Indirect Effect Model from Negative Organization-Related Career Shocks to Career Optimism.

	Model without Controls				Model with Controls			
	Coefficient	<i>p</i>	LLCI	ULCI	Coefficient	<i>p</i>	LLCI	ULCI
<i>Negative organization-related career shocks</i> → <i>Job insecurity</i>	$R^2 = .16$.000			$R^2 = .19$.000		
Age T1					- 0.00	.738	- 0.008	0.005
Gender T1					0.16	.009	0.040	0.271
Organizational tenure T1					0.01	.138	- 0.002	0.016
Contract type T1					0.57	.001	0.232	0.905
Leadership position T1					- 0.18	.004	- 0.311	- 0.059
Occupational education T1					0.05	.442	- 0.073	0.168
Negative organization-related career shocks T1	0.10	.000	0.061	0.133	0.10	.000	0.064	0.136
Perceived organizational career support T1	- 0.25	.000	- 0.299	- 0.197	- 0.23	.000	- 0.282	- 0.177
Interaction T1	- 0.04	.010	- 0.075	- 0.011	- 0.04	.010	- 0.075	- 0.010
<i>Job insecurity</i> → <i>Career optimism</i>	$R^2 = .07$.000			$R^2 = .13$.000		
Age T1					- 0.02	.000	- 0.026	- 0.008
Gender T1					0.04	.639	- 0.121	0.196
Organizational tenure T1					- 0.00	.719	- 0.015	0.010
Contract type T1					0.09	.701	- 0.371	0.552
Leadership position T1					0.40	.000	0.233	0.572
Occupational education T1					0.11	.180	- 0.052	0.276
Negative organization-related career shocks T1	- 0.03	.268	- 0.080	0.022	- 0.02	.411	- 0.072	0.029
Job insecurity T2	- 0.34	.000	- 0.437	- 0.248	- 0.30	.000	- 0.394	- 0.205

Note. $N = 725-728$; Interaction T1 = Interaction negative organization-related career shock and perceived organizational career support; LL = lower limit, UL = upper limit, CI = confidence interval, 95% confidence intervals.

CAREER SHOCKS AND CAREER OPTIMISM

Table 3

Unstandardized Direct and Conditional Indirect Effects from Negative Organization-Related Career Shocks to Career Optimism.

Effects	Model without Controls					Model with Controls				
	Effect	SE	t	BootLLCI	BootULCI	Effect	SE	t	BootLLCI	BootULCI
<i>Direct effect</i>										
Negative organization-related career shocks on career optimism	- 0.03	0.03	- 1.11	- 0.080	0.022	- 0.02	0.03	- 0.82	- 0.072	0.029
<i>Conditional indirect effect</i>										
Low perceived organizational career support (- 1 SD)	- 0.05	0.01	-	- 0.080	- 0.025	- 0.04	0.01	-	- 0.073	- 0.022
Medium perceived organizational career support	- 0.03	0.01	-	- 0.052	- 0.018	- 0.03	0.01	-	- 0.047	- 0.016
High perceived organizational career support (+ 1 SD)	- 0.02	0.01	-	- 0.034	- 0.002	- 0.02	0.01	-	- 0.031	- 0.002

Note. $N = 725-728$; Boot = Bootstrapping; LL = lower limit, UL = upper limit, CI = confidence interval, 95% confidence intervals for the indirect effects were calculated using bootstrapping based on 5,000 samples.

CAREER SHOCKS AND CAREER OPTIMISM

Table 4

Additional Analysis – Unstandardized Results of the Conditional Indirect Effect Model.

	Model without Controls				Model with Controls			
	Coefficient	<i>p</i>	LLCI	ULCI	Coefficient	<i>p</i>	LLCI	ULCI
<i>Negative organization-related career shocks</i> →	<i>R</i> ² =	.16	.000		<i>R</i> ² =	.19	.000	
<i>Job insecurity</i>								
Gender T1					0.16	.009	0.040	0.271
Organizational tenure T1					0.01	.140	- 0.002	0.015
Contract type T1					0.57	.001	0.235	0.907
Leadership position T1					- 0.19	.004	- 0.313	- 0.062
Occupational education T1					0.05	.436	- 0.073	0.168
Negative organization-related career shocks T1	0.10	.000	0.060	0.133	0.10	.000	0.063	0.135
Perceived organizational career support T1	- 0.25	.000	- 0.301	- 0.198	- 0.23	.000	- 0.281	- 0.176
Interaction 1	- 0.04	.011	- 0.075	- 0.010	- 0.04	.010	- 0.075	- 0.010
<i>Job insecurity</i> → <i>Career optimism</i>	<i>R</i> ² =	.10	.000		<i>R</i> ² =	.14	.000	
Gender T1					0.05	.540	- 0.109	0.207
Organizational tenure T1					- 0.00	.790	- 0.014	0.011
Contract type T1					0.07	.772	- 0.392	0.528
Leadership position T1					0.39	.000	0.226	0.564
Occupational education T1					0.11	.171	- 0.050	0.277
Negative organization-related career shocks T1	- 0.01	.679	- 0.062	0.040	- 0.02	.435	- 0.070	0.030
Job insecurity T2	- 0.33	.000	- 0.423	- 0.236	- 0.29	.000	- 0.388	- 0.199
Age T1	- 0.02	.000	- 0.024	- 0.008	- 0.02	.000	- 0.026	- 0.009
Interaction 2	- 0.01	.006	- 0.024	- 0.004	- 0.01	.006	- 0.023	- 0.004

Note. *N* = 725-728; Interaction 1 = Interaction negative organization-related career shock and perceived organizational career support; Interaction 2 = job insecurity T2 and age T1; LL = lower limit, UL = upper limit, CI = confidence interval, 95% confidence intervals.

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Table 5

Additional Analysis – Unstandardized Direct and Conditional Indirect Effects from Negative Organization-Related Career Shocks to Career Optimism.

Effects	Model without Controls					Model with Controls					
	Effect	SE	<i>t</i>	BootLLCI	BootULCI	Effect	SE	<i>t</i>	BootLLCI	BootULCI	
<i>Direct effect</i>											
Negative organization-related career shocks on career optimism	- 0.01	0.03	- 0.41	- 0.062	0.040	- 0.02	0.03	- 0.78	- 0.070	0.030	
<i>Conditional indirect effect</i>											
POCS T1	Age T1										
Low	Low	- 0.03	0.01	-	- 0.055	- 0.007	- 0.02	0.01	-	- 0.052	- 0.003
	Medium	- 0.05	0.01	-	- 0.075	- 0.023	- 0.04	0.01	-	- 0.071	- 0.021
	High	- 0.07	0.02	-	- 0.105	- 0.034	- 0.06	0.02	-	- 0.098	- 0.032
Medium	Low	- 0.02	0.01	-	- 0.036	- 0.005	- 0.02	0.01	-	- 0.034	- 0.002
	Medium	- 0.03	0.01	-	- 0.048	- 0.017	- 0.03	0.01	-	- 0.046	- 0.016
	High	- 0.04	0.01	-	- 0.068	- 0.024	- 0.04	0.01	-	- 0.065	- 0.023
High	Low	- 0.01	0.01	-	- 0.022	- 0.001	- 0.01	0.01	-	- 0.020	- 0.000
	Medium	- 0.02	0.01	-	- 0.032	- 0.002	- 0.02	0.01	-	- 0.030	- 0.002
	High	- 0.02	0.01	-	- 0.045	- 0.002	- 0.02	0.01	-	- 0.044	- 0.003

Note. *N* = 725-728; POCS = perceived organizational career support; Boot = Bootstrapping; LL = lower limit, UL = upper limit, CI = confidence interval, 95% confidence intervals for the indirect effects were calculated using bootstrapping based on 5,000 samples.

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