

**Title**

Career adaptability and employee well-being over a two-year period: Investigating cross-lagged effects and their boundary conditions

**Author names and affiliations**

Ieva Urbanaviciute<sup>a,b</sup>

Shagini Udayar<sup>a,b</sup>

Jérôme Rossier<sup>a,b</sup>

<sup>a</sup>Swiss National Centre of Competence in Research LIVES, University of Lausanne, Switzerland

<sup>b</sup>Institute of Psychology, University of Lausanne, Switzerland

**Corresponding author**

Correspondence should be addressed to Prof. Jérôme Rossier at: [jerome.rossier@unil.ch](mailto:jerome.rossier@unil.ch).

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### **Abstract**

The present study investigates the role of career adaptability in employee well-being within a period of two years. In addition, it aims to shed light on the boundary conditions that potentially determine the use of adaptability resources and thereby may moderate the relationship between career adaptability and work and life outcomes. The study was based on a representative sample of a Swiss working population from the French- and German-speaking parts of Switzerland. A total of 1,007 employed adults participated in the survey two years apart. Cross-lagged structural equation modeling analyses demonstrated a positive cross-lagged effect from career adaptability to job and life satisfaction. Conversely, a negative effect was observed with regard to perceived stress in life. In addition, our findings suggest that certain conditions (such as perceived limitation in career prospects and recent experience of significant work-related events) may strengthen some of the cross-lagged relationships between career adaptability and its positive outcomes. The present study contributes to the career construction literature in two ways. First, it tests a comprehensive cross-lagged model to inspect the longer-term effects of career adaptability on work-related and general well-being, thereby suggesting that career adaptability may have a role in longer-term adaptation due to its contribution to the maintenance of well-being levels. Second, we respond to a call for action regarding the boundary conditions under which career adaptability differentially predicts work and life outcomes (Rudolph, Lavigne, & Zacher, 2017). By identifying recent significant events and perceived career prospects as moderators, we begin to expose some of the complexities of career adaptability and career construction.

*Keywords:* Career adaptability, personal resources, boundary conditions, employee well-being, cross-lagged models

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### **Introduction**

Over the recent years, increased attention has been given to personal resources that help individuals manage the numerous demands imposed by turbulent vocational environments and foster proactive behaviors aimed at optimizing the environment to better fit their needs. This tendency is well illustrated by theoretical advances in the fields of counseling and work psychology, which suggest that the use of such resources may represent a connecting link between the context and various positive work and life outcomes (Luthans, Youssef, & Avolio, 2007; Rossier, 2015; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). Career adaptability, as suggested within career construction theory (Savickas 2005; 2013), represents one such resource. Comprised of career concern, control, curiosity, and confidence, it is a tool for managing career-related tasks, traumas and transitions that constitute an inseparable part of today's world of work (Savickas & Porfeli, 2012). What makes career adaptability exceptional in light of other commonly investigated resources is that it is a transversal personal strength that manifests as agency in career development (Brown & Lent, 2016) and results in a range of adaptive responses both within and outside of the career domain and across different life stages.

However, to date, career adaptability has been most extensively investigated as a specific resource for career choice and development among youth (e.g., Hirschi, 2009; Wilkins et al., 2014), with the majority of studies having been conducted in student populations. Despite some existing interesting findings on adults (e.g., Bimrose & Hearne, 2012; Brown, Bimrose, Barnes, & Hughes, 2012) the manifestation and benefits of adaptability resources among working adults still need more consideration. For instance, substantially less systematic knowledge is available on the potentially differential

relationships between adult career adaptability and work-related and general well-being, especially in the long run. Prior findings have shown that in general career adaptability positively relates to job and life satisfaction (Maggiori, Johnston, Krings, Massoudi & Rossier, 2013; Zacher, 2015) and may help counteract work stress (Johnston, Luciano, Maggiori, Ruch, & Rossier, 2013). However, the underlying processes through which these positive effects occur need further clarification, as the relationship between career adaptability and well-being outcomes may be either indirect (Fiori, Bollmann, & Rossier, 2015) or conditional, that is, moderated by third factors (Zacher & Griffin, 2015). Moreover, given that most attention has been paid to career adaptability as a processual resource that can be activated when needed (Rossier, 2015), we do not really know if besides fast adaptation it may also have a long-term impact in maintaining well-being. To advance on this topic, a longitudinal investigation is particularly useful, revealing the direction and magnitude of career adaptability effects, as well as their viability over time.

The current study aims to address these issues by investigating the link between career adaptability, perceived stress in life, and job and life satisfaction over a course of two years using a representative Swiss sample of professionally active adults. Our study contributes to the development of career construction theory in several ways. First, it informs the theory by bringing forward the longitudinal aspect, which is still lacking in the career adaptability research. By focusing on a two-year lag, we aim to demonstrate that career adaptability may be a workers' longer-term resource for well-being. The present study also broadens the scope of investigated adaptation outcomes as we simultaneously focus on work and general well-being rather than examining the more commonly studied career choice behaviors. Furthermore, and most notably, we broaden the knowledge on *when* career adaptability is most likely to be effective by investigating thus-far under-researched contextual factors (i.e., the experience of significant life events, perceived job fit, and existing career prospects). Our

study suggests that they potentially act as boundary conditions in determining the strength of the relationship between career adaptability and well-being over time.

### **Long-Term Effects of Career Adaptability**

Theory of career construction defines career adaptability as “the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions” (Savickas, 1997, p. 254). More precisely, it refers to a set of individual resources that eventually manifest in corresponding adaptive behaviors, such as career exploration, planning, or interest in new career opportunities (Hirschi, Herrmann, & Keller, 2015; Savickas & Porfeli, 2012). In this way, career adaptability makes part of the self-regulation mechanism (see Rossier, 2015) that is crucial in optimizing the person-environment fit, dealing with external constraints, and building a satisfactory career path over time. While career construction theory (Savickas, 2013; Savickas et al., 2009) and its recent developments in particular (Rossier, 2015) have underlined the self-regulatory processes of career adaptability due to the activation of adaptability resources, their longer-term aspects that are not necessarily based on momentary activation are not well-described and, consequently, not enough investigated in empirical research. We address this gap by referring to career adaptability as a complex self-regulatory construct comprised of relatively stable readiness to adapt and actual adaptive responses (see Johnston, 2018 for an overview), the stable part serving as a primary precondition of adaptive well-being outcomes within and outside the working domain. Specifically, the current study proposes that the beneficial outcomes of career adaptability extend over time because the stable part of career adaptability refers to the overall readiness to cope with vocational challenges due to the accumulation of adaptability resources and successful previous coping experiences over the life course. Therefore, it may be expected to directly relate to the overall *maintenance* of the well-being levels over time. On the contrary, the dynamic part of career

adaptability pertains to proactive coping behaviors that are only activated under certain challenging conditions and should, therefore, serve for *regaining* well-being when necessary. Notably, although the distinction between the readiness to adapt and actual adaptive behaviors is implied in the theory (Savickas, 2013), they are rarely treated as separate aspects of career adaptability in research practice. In cross-sectional studies, this distinction does not pose a problem, because career adaptability can be easily defined as an omnibus construct without deconstructing its aspects and their role in adaptation. However, when temporal aspects are taken into account, it may be important to separate between the stable and the dynamic part, because they offer slightly different interpretations of the positive career adaptability effects. In principle, the adaptation process can be described by *adaptation results* that denote the outcomes of *adaptive responses* that draw on *adaptability resources* (Rudolph, Lavigne, & Zacher, 2017; Savickas, 2005, 2013). Hence, being ready to apply one's adaptability resources is the initial and foundational step in the adaptation process. Looking from a longer-term perspective, individuals who have well-developed baseline levels of career adaptability (i.e., the stable part) will be generally more adaptable in a variety of situations and thus more likely to foster and maintain their well-being over time than those whose career adaptability is less developed. Given the predominantly cross-sectional findings, the abovementioned long-term aspect of the career adaptability–adaptation relationship still remains open for further investigation. A cross-lagged modeling strategy, especially based on longer time lags, is particularly appropriate for this, as it accounts for the prior levels of the studied outcomes (Selig & Little, 2012). For this reason, the explained variance in the outcome variable can be attributed with more confidence to the initial levels of career adaptability.

The present study focuses on three outcomes: perceived stress, life satisfaction, and job satisfaction—that can be considered as good examples of adaptation results (Hirschi et al., 2015; Rudolph et al., 2017). Perceived stress refers to the global levels of the perceived

stressfulness of life situations (Cohen, Kamarck, & Mermelstein, 1983). In other words, it is an overall subjective evaluation of stress that one experiences in his or her daily life. As noted by Cohen et al. (1983), such global stress levels may either result from specific stressful events or be a function of coping processes and dispositional factors. This implies that a certain share of perceived stress in life could be attributable to steady inner self-regulatory strategies (as opposed to stress triggering external factors), which help keep global stress at a manageable level. As a psychosocial self-regulatory resource, career adaptability has a significant role in maintaining individuals' positive affect (Fiori et al., 2015; Konstam, Celen-Demirtas, Tomek, & Sweeney, 2015) as well as in coping with tensions in the vocational domain (e.g., Johnston et al., 2013), which presumably also translates into reduced global levels of stress. Hence, we hypothesize a negative cross-lagged relationship between career adaptability and stress in life.

*Hypothesis 1a:* Employees with higher career adaptability resources at the baseline will report lower levels of stress in life after two years.

Following a similar rationale, career adaptability is expected to contribute to sustaining the levels of life and job satisfaction. Career construction theory maintains that career adaptability is one of the competencies for building one's well-being (Savickas, 2013). Previous studies have provided convincing empirical support for this claim, both in the work domain and in life in general (Maggiori et al., 2013; Konstam et al., 2013), generally suggesting that applying one's adaptability resources may have a positive spillover effect on non-work domains. In line with this, a further step is to supplement these findings with more longitudinal evidence on the link between career adaptability and life satisfaction. Life satisfaction refers to "a cognitive and global evaluation of the quality of one's life as a whole" (Pavot & Diener, 2008, p. 137). These judgments stem from a comparison of the existing life circumstances to a subjectively held standard of a good life, where higher congruency reflects

higher life satisfaction (Pavot & Diener, 1993). Despite the prolific research on the topic, the question remains as to which factors predict life satisfaction and how malleable its levels are from a longer-term perspective. One of the most intriguing assumptions concerning life satisfaction is the so-called habituation hypothesis (for a review see Diener, Lucas, & Scollon, 2006; Lucas, 2007). It maintains that each individual has a personal baseline or a set point of life satisfaction. Various life events may cause temporary changes; however, after some time, people tend to return to their baseline level, which is thought to have a dispositional basis (Headey & Wearing, 1992; Pavot & Diener, 2004). While absolute stability is not likely, studies lend support to the relative stability of the personal set point in life satisfaction, which is referred to as a “soft baseline” (Fujita & Diener, 2005). At the same time, the literature implies that substantial interpersonal differences in both the levels and the stability of satisfaction ratings exist and that they cannot be ascribed solely to dispositional factors (Diener et al., 2006). Hence, a third category of factors—broadly labelled self-regulatory coping resources and activities—are suggested to have a role in life satisfaction (Diener et al., 2006; Lyubomirsky, Sheldon, & Schkade, 2005). What has yet to be tested is whether these self-regulation resources not only produce concurrent results but that they can also have a lasting effect on life satisfaction (e.g., in helping to maintain its higher baseline levels). Drawing on the view of career adaptability as a self-regulation capacity (Rossier, 2015; Savickas, 2005; Savickas & Porfeli, 2012) that is based on a relatively stable readiness to adapt (Johnston, 2018), we hypothesize that it may indeed act as the means for sustaining higher life satisfaction so that the effect remains distinguishable on a longer-term basis.

*Hypothesis 1b:* Employees with higher career adaptability resources at the baseline will report higher levels of life satisfaction after two years.

In contrast to global judgments of life satisfaction, job satisfaction is a domain-specific variable that reflects a judgment of a specific aspect of one’s life (Pavot & Diener, 2008).



Although interrelated, life and job satisfaction do not represent a unitary construct. Research shows that the global and domain-specific aspects of satisfaction may have different rates of change over time for the same individual (Diener et al., 2006). Hence, it is sensible to analyze them as separate constructs. From the viewpoint of career development, such a distinction is even more relevant because it offers the possibility to investigate the generalizability of career adaptability effects across the life and work domains. Following the above-discussed rationale that links career adaptability and life satisfaction, we also hypothesize a positive effect of career adaptability on job satisfaction. In theory, adaptability resources have a major impact in successfully accomplishing various career tasks (Savickas, 1997; 2013). Employing these resources at work should thus help people attain, craft, and sustain more satisfying careers (Savickas & Porfeli, 2012; Zacher & Griffin, 2015), resulting in higher levels of work-related satisfaction. Previous findings have already shown some support for this link (e.g., Fiori et al., 2015; Zacher & Griffin, 2015). However, it is not yet known how well established the positive effects of career adaptability are, especially when both job and life satisfaction are considered. We thus aim to add to the existing literature by testing a full model that comprises work-related and general well-being and, as in the case of life satisfaction, seeking to demonstrate that career adaptability may help maintain job satisfaction over an extended period.

*Hypothesis 1c:* Employees with higher career adaptability resources at the baseline will report higher levels of job satisfaction after two years.

### **Boundary Conditions**

In the second part of the study, we turn to the boundary conditions that may determine the strength of the previously discussed relationships between career adaptability and employee well-being. Here we discuss some dynamic aspects of career adaptability. The theory of career construction (Savickas, 1997; 2005) and the model of the processual role of

career adaptability (Rossier, 2015) maintain that career adaptability is particularly relevant under stressful, demanding or otherwise adverse conditions. The use of career adaptability may thus be contingent on a number of internal or external factors that are referred to in the self-regulation literature as boundary conditions (Karoly, 1993). This offers a novel and to date only scarcely employed research perspective. Whereas in the first part of this study we aimed at examining the “established” lasting effects of career adaptability, in the second part we focus on determining their contingency. To be more specific, our study proposes that people who have higher baseline levels of career adaptability (i.e., the stable part) would be more ready to react in various challenging or adverse conditions by employing their resources (i.e., the dynamic part) in order to regain or sustain their well-being that is being affected by those contextual factors. We thereby contribute to the literature by investigating not only *if* career adaptability affects employee well-being from a longer-term perspective but also demonstrating *when* these effects are the most salient.

Career construction implies structuring one’s career and life story. However, little is known about which aspects shape this process. Various boundary conditions might be the frame that help people to construct their story as adaptation always occurs in a certain context, and we need to better understand these contextual factors both within the theoretical framework and in empirical research. Moreover, a temporal dimension is important in giving the meaning to the process of career construction, because the interpretations of our personal stories are inevitably embedded in the past, the present, and the future, interconnecting these dimensions. For this reason, the present study investigates three boundary conditions that have a different temporal aspect, relate to the world of work, and may shape the relationship between career adaptability and its outcomes. Specifically, we were interested in the recent experience of significant life events (i.e., denoting the past temporal dimension), job fit (i.e., denoting the present), and perceived career prospects (i.e., denoting the future). The

investigation of their moderating effects on the three well-being outcome variables is also based on the relevance of these outcomes against the backdrop of career adaptability. The propositions of career construction theory (Savickas, 2013) suggest career adaptability to have a broad positive effect on well-being. Workplace and overall subjective well-being constitute the core elements of employee well-being (Page & Vella-Brodrick, 2009), whereas dealing with stress is another aspect of well-being determined by our self-regulative coping capacities (Aspinwall & Taylor, 1997). Hence, by investigating a set of work and life outcomes we benefit from the opportunity to test the *breadth* and the *contingency* of the positive effects of career adaptability at the same time.

The experience of significant life events is probably the most well-known factor that has an impact on subjective well-being (Headey & Wearing, 1989; Luhmann, Hofmann, Eid, & Lucas, 2012; Stallings, Dunham, Gatz, Baker, & Bengtson, 1997) and may thus affect the relationship between adaptability resources and well-being outcomes. Although career adaptability may be seen as a transversal set of personal resources for career construction and well-being, the career construction literature particularly underscores the salience of these resources in challenging conditions (Savickas & Porfeli, 2012). The experience of significant life-changing events, especially if they affect the work domain, is thus an important contextual factor and a potential boundary condition for the relationship between career adaptability and well-being to occur. Hypothetically, such life-changing work events may be stressful and result in the drop of the levels of job and life satisfaction. Thus, they call for the use of career adaptability resources (as they are particularly relevant in the vocational domain) to better cope with stress in life and to sustain work-related and general well-being. Since employees with higher baseline levels of career adaptability may be more ready to demonstrate adaptive behavioral strategies when needed, their baseline career adaptability can predict higher well-being after experiencing significant events. Hence, we expect to find a

stronger cross-lagged effect from baseline career adaptability to the investigated well-being outcomes among employees who have had recent experiences of significant work-related events (in comparison to those who experienced non-work-related events or did not experience any significant events). Notably, in the current study we do not distinguish among the valence of the events, because even a positive one (e.g., a promotion) may present a significant challenge that requires adaptability.

*Hypothesis 2a:* The recent experience of significant events moderates the cross-lagged relationships between career adaptability and perceived stress, job satisfaction, and life satisfaction, such that these relationships are stronger in the work-related events condition.

The extent to which one's vocational surroundings are favorable or restrictive to the career progression is another potential boundary condition that may determine the effect of career adaptability on well-being. Theory of career construction maintains that one of the benefits of career adaptability is that, due to its self-regulatory qualities, it helps increase the person-situation congruence (Rossier, 2015; Savickas, 1997). Hence, the situations of a lack of fit may particularly require employing one's career adaptability resources in order to restore the favorable interaction between the person and the environment. One specific example of that is a mismatch between the person and the job. Presumably, it imposes a constraint in the working situation, as the person perceives a discrepancy between the values, competencies, or benefits that he or she actually has and those that he or she is supposed to have (Kristof-Brown, Zimmerman, & Johnson, 2005). Of course, a lack of fit may result from low career development resources at the first instance—it may depend on the prior use of career decision-making strategies (Singh & Greenhaus, 2004) and career planning behaviors (Saks & Ashforth, 2004). However, the career construction literature (Savickas & Porfeli, 2012) suggests that environmental constraints, such as person-environment misfit, may trigger a more intense use of one's resources and strengths to restore or improve the well-being

situation. Therefore, baseline career adaptability can be expected to be a more salient predictor of well-being) under the condition of low job fit, because it implies higher readiness to demonstrate adaptive behaviors when needed.

*Hypothesis 2b:* Perceived job fit moderates the cross-lagged relationships between career adaptability and perceived stress, job satisfaction, and life satisfaction, such that these relationships are stronger in the low job fit condition.

Similarly, perceived career prospects constitute a broad variable that denotes the subjectively perceived possibilities of the career progression in the future. At the conceptual level, limited career prospects can be understood as barriers to career development. The idea of barriers as a moderating factor that either promotes or constrains career agency stems from social cognitive career theory (Lent, Brown, & Hackett, 2000). In the latter case, however, the focus is on how various contextual constraints may affect career interests and choice, but not the use of personal career agency resources *per se*. Drawing on career construction theory (Rossier, 2015; Savickas et al., 2009), we add yet another perspective to career barriers that complements the previous work on the topic. Specifically, we hypothesize that perceived constraints in career prospects in the future may serve as a frame for career construction and thereby may determine the manifestation of career agency—as reflected in a more salient link between career adaptability and well-being outcomes.

*Hypothesis 2c:* Perceived career prospects moderate the cross-lagged relationships between career adaptability and perceived stress, job satisfaction, and life satisfaction, such that these relationships are stronger in the limited career prospects condition.

We expect that this study will help us make a step forward in understanding the role of career adaptability resources in the well-being of mid-career professionals. In addition to the investigation of the direction of the cross-lagged relationships, identifying the contingencies

of career adaptability can add completely novel insight into the widely discussed topic of the interaction between the context and personal factors in adult career development.

## **Method**

### **Procedure**

The present study is based on the longitudinal “Professional Paths” survey conducted at the Swiss National Centre of Competence in Research—Overcoming Vulnerabilities: Life Course Perspectives (LIVES). We used the data from two measurement occasions separated by a two-year lag. The data were collected by means of a follow-up questionnaire. Before each measurement occasion, the participants received a letter inviting them to complete the survey. All data were collected anonymously, with a 6-digit code identifying each participant. Each time, at the end of the survey, the participants either received a 20 CHF gift card as compensation, or they could choose to donate this amount to a non-profit organization.

The full description of the study and the data are stored in the FORSbase data repository and are available upon request. While, part of these data were used in prior publications, none of them has used the exact set of variables and/or sample that is used in the present study. Hence, our results do not duplicate previous findings. Moreover, despite using the same dataset to investigate career adaptability, the current study substantially differs from the previous studies in the research questions raised and in the analytic techniques used.

### **Participants**

The data of 1,007 employed adults were used in the analysis (51.6% female; mean age at T1 = 42.77,  $SD = 8.42$ ). This sample, which was drawn from the national register of inhabitants by the Swiss Federal Statistic Office, is roughly representative of the German- and French-speaking Swiss working population in terms of age, gender, and linguistic region. At T1, the initial valid sample consisted of 1,847 professionally active individuals, and 1,007 of them fully completed the survey again after two years (dropout rate 45.5%). The dropout

analyses revealed no differences in the composition of the sample with regard to gender and perceived career prospects when compared between the dropout and the final study samples. No differences were observed in the mean levels of career adaptability and job satisfaction either. However, the dropout sample was younger in age ( $\Delta M = 1.77$ ,  $t(1845) = -4.42$ ,  $p < .001$ ,  $d = .21$ ) and was slightly differently distributed in terms of job fit (24.8% *versus* 29.5% reporting partial fit and 19.2% *versus* 14.5% reporting misfit in the dropout and the study samples respectively; no difference in the percentage of respondents reporting good job fit). The dropout sample also reported higher mean levels of perceived stress ( $\Delta M = -.07$ ,  $t(1844) = 2.41$ ,  $p = .016$ ,  $d = .11$ ) and lower life satisfaction ( $\Delta M = -.13$ ,  $t(1839) = -2.48$ ,  $p = .013$ ,  $d = .11$ ) as measured at T1.

### Measures

The main study variables (i.e., career adaptability, perceived stress in life, job and life satisfaction) were measured at both occasions. Additionally, the survey included standard demographic questions such as age, gender and employment status, and it asked for information about job fit (T1), perceived career prospects (T1), and the recent experience of significant life events (T2). See Appendix A for a more detailed information on the variables measured at each occasion.

**Career adaptability.** Career adaptability was measured using the Career Adapt-Abilities Scale–Short Form (CAAS-SF; Maggiori, Rossier, & Savickas, 2017). The scale consists of 12 items and measures four career adaptability facets: concern (e.g., “Thinking about what my future will be like”), control (e.g., “Taking responsibility for my actions”), curiosity (e.g., “Looking for opportunities to grow as a person”), and confidence (e.g., “Taking care to do things well”). The participants rated how strongly they had developed their resources to manage their careers on a 5-point Likert scale (1 – *I don't have the ability to*, 5 – *I*

*have a very strong ability to*). The overall Cronbach's alpha coefficient of the scale was .88 at T1 and .89 at T2. For the subscales, it ranged from .75 to .81 at T1 and from .76 to .82 at T2.

**Perceived stress in life.** This variable was measured using five items from the Perceived Stress Scale (Cohen et al., 1983). The scale refers to the degree to which situations in one's life have been appraised as stressful over the period of the last month. Specifically, the items tap into how unpredictable, uncontrollable, and overloaded respondents find their lives to be (e.g., "How often have you felt that you were unable to control the important things in your life?"). The answers were marked on a five-point Likert-type scale (1 – *never*, 5 – *very often*). The Cronbach's alphas at T1/T2 were, respectively, .76/.76.

**Job satisfaction.** This variable was measured with five items from the JobSat inventory (Rolland, 1995, in Massoudi, 2009). It measures the satisfaction with different job facets (e.g., general working conditions, salary, job security, quality of the relationships with the supervisor and colleagues). The degree of satisfaction was rated on a four-point scale (1 – *not at all satisfied*, 4 – *highly satisfied*). The Cronbach's alphas at T1/T2 were .67/.70.

**Life satisfaction.** The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) was used. It is a well-validated scale, which consists of five items that measure the global cognitive judgments of satisfaction with one's life (e.g., "In most ways my life is close to my ideal"). The agreement with the items had to be rated on a seven-point Likert-type scale (1 – *strongly disagree*, 7 – *strongly agree*). The Cronbach's alphas at T1/T2 were .87/.90.

**Boundary conditions.** Three boundary conditions were included in the present study: job fit, perceived career prospects, and recent experience of significant events. Job fit was measured with one item at T1 that asked the respondents to indicate how well their job fit them. The item had three rating options (1 – *no*, 2 – *partially*, 3 – *yes*). Perceived career prospects were also measured at T1. The respondents were asked to indicate their agreement



with the item “My career prospects and promotion opportunities are good” (1 – *strongly disagree*, 2 – *disagree*, 3 – *agree*, 4 – *strongly agree*). Since the rating scale did not have a neutral option, for the simplicity of the further analyses, answers to this item were converted into a dichotomous score. The two disagreement options were combined into a “limited career prospects” score (coded as 1), whereas the two options expressing agreement with the statement were combined into a “good career prospects” score (coded as 2). Recent experience of significant events was measured at T2. The respondents were asked to indicate whether they had experienced any significant life event over the course of a year preceding T2 and, if yes, what types of events were experienced. The responses were assigned into three categories (0 – *no significant life events reported*, 1 – *at least one work-related significant life event reported*, 2 – *non-work based significant life events reported*). It is, however, important to note that the categories were not entirely exclusive from each other (i.e., respondents who had at least one significant work event were classified into the work events category although they may have additionally experienced other, non-work related events).

### **Statistical Analyses**

The data were analyzed using SPSS and AMOS version 24. Given that the dataset contained occasional missing values, a full information maximum-likelihood (FIML) estimator was used. To proceed with statistical analyses, we adopted a two-step analytic strategy suggested by Anderson and Gerbing (1988), which maintains that in latent variable modeling, measurement model analyses precede the structural relationship analyses. In accordance with this recommendation, the robustness of the measurement model was tested in the first instance. To determine whether the same factor structure holds across the French- and German-speaking subsamples, across the two measurement occasions, and across different boundary conditions, measurement invariance tests were run for each scale used in the study. Furthermore, a series of factor structure models were compared to confirm construct validity.

Since all measures were self-rated, we also tested for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Specifically, all items were modeled to load simultaneously on the common method factor and on their respective factors. The common method factor loadings were then inspected to determine how much of the shared variance was accounted for by this factor.

To test the study hypotheses, a cross-lagged structural equation modeling was used. It allows for the testing of the temporal relationships accounting for the prior values of the outcome variables of interest (Selig & Little, 2002). This analytic design was the most appropriate in the current study since we were using only two waves of data and were primarily interested in the direction and strength of the relationships between career adaptability and employees' well-being. All analyses were based on latent constructs. The career adaptability latent factor was composed of four indicators obtained from the subscale mean scores, whereas the rest of the latent factors (i.e., perceived stress, life satisfaction, and job satisfaction) were composed of item indicators from the corresponding measures. The stability model with only autoregressive paths included was chosen as the baseline model for comparison. To test Hypotheses 1a, 1b, and 1c, a series of competing nested models were compared to the baseline model as per recommendations in the literature for testing the direction of the cross-lagged effects (Zapf, Dormann, & Frese, 1996). Specifically, we tested the fit of a) a normal causation model, which, in addition to the stability paths, contained paths from career adaptability to all three hypothesized outcomes (i.e., perceived stress, job satisfaction, and life satisfaction); b) a reversed causation model, which, in addition to the stability paths, contained paths from the hypothesized outcome variables to career adaptability; c) a "full" reciprocal model, which comprised bi-directional paths.

To test Hypotheses H2a, H2b, and H2c, moderation analyses were conducted. Since all tested moderators (i.e., recent experience of significant life events, job fit, career

prospects) were treated as categorical variables, multi-group tests were run to determine the moderation effects by constraining the cross-lagged parameters. These analyses are based on a nested model comparison and inform whether the constrained model, imposing the equality of the cross-lagged paths across the different values of the moderator, yields a significant decrease in model fit compared to the freely estimated model. The moderation effect is indicated by a significant difference between the constrained and the freely estimated model.

## Results

### Descriptive Statistics

The means, standard deviations and correlations between the main study variables are provided in Table 1. In addition, the percentages of the participants in each boundary condition were computed. With regard to the perceived job fit at T1, 14.5% ( $n = 146$ ) of the sample reported low fit, 29.5% ( $n = 297$ ) reported partial fit, and 56% ( $n = 564$ ) reported a good fit. The distribution of the participants across the two career prospects conditions was semi-equal with 49.6% ( $n = 499$ ) of the participants in the low career prospects condition and 50.4% ( $n = 508$ ) in the high career prospects condition. Concerning recent significant life events 46.3% ( $n = 466$ ) reported no significant events, 33.2% ( $n = 334$ ) reported non-work-related significant events, 18.1% ( $n = 182$ ) reported work-related significant events, and 2.5% ( $n = 25$ ) did not disclose.

### Measurement Model Analyses

Measurement invariance analyses of all the measures used in this study generally showed support for the equivalence of factor loadings across the two measurement points, the two language groups, and moderator (boundary) conditions. Model comparisons were based on differences in chi-square statistics and in CFI and RMSEA values. An exception was found when comparing the career adaptability factor loadings at T2 between the group with significant work-related events experience and the group with non-work event experience: in

this case, partial metric invariance was established by relaxing the constraints of one factor loading. Detailed information on invariance analyses is provided in Appendix B.

Furthermore, construct validity was investigated by comparing four alternative factor models comprised of items from the CAAS-SF, PSS, JobSat and SWLS: a baseline model in which all items loaded on a single factor (M1), a three-factor model in which items from the PSS and SWLS measures formed one factor, and items from CAAS-SF and JobSat constituted separate factors (M2), a three-factor model in which items from the SWLS and JobSat were merged into one factor (M3), and a four-factor model representing four distinct variables (M4). According to the results presented in Table 2, M4 was the best fitting model both at Time 1 and at Time 2. A comparison based on chi-square difference tests revealed that it fit the data better than the baseline model and both three-factor. This suggests that despite being considerably interrelated, the four constructs carry meaningful differences from one another. Finally, common method bias analyses showed that the common-method factor accounted for a rather small amount of variance (an average of 2% at T1 and 3% at T2), which should not be problematic.

### **Hypotheses Testing**

A comparison of competing cross-lagged models and their fit indices is provided in Table 3. According to the results, the normal causation model had the best fit to the data. All normal causation paths (i.e., from career adaptability to the outcomes) were statistically significant. The standardized estimates of this normal causation model are displayed in Figure 1. None of the reversed causation paths reached the significance level (Perceived stress<sub>T1</sub> → CAAS<sub>T2</sub>:  $\beta = -.10, p = .051$ , Life satisfaction<sub>T1</sub> → Career adaptability<sub>T2</sub>:  $\beta = -.08, p = .089$ , Job satisfaction<sub>T1</sub> → Career adaptability<sub>T2</sub>:  $\beta = -.03, p = .439$ ). Note that background variables were not included as statistical controls in the final model—gender was unrelated to any of the main variables, whereas including age as a covariate did not change the cross-lagged path

estimates, it was therefore removed from the model. As expected, a positive cross-lagged relationship was found between career adaptability and life and job satisfaction, whereas in the case of perceived stress in life the relationship was negative. All cross-lagged paths in the normal causation model were statistically significant, which confirms Hypotheses 1a, 1b, and 1c. It is notable, however, that there is an overlap between the scores of perceived stress and life satisfaction. Although the size of the correlations is not extreme (i.e., they do not exceed .85, which would be considered problematic, see Kline, 2005), and the measurement model with four distinct factors fitted to the data well, this may still encumber the interpretation of the results because of a rather large amount of shared variance between the two variables.

Furthermore, moderation analyses using a multi-group comparison were conducted to test the role of boundary conditions in the relationship between career adaptability and its hypothesized outcomes. The normal causation cross-lagged model with unidirectional paths from career adaptability to the outcomes was used as the basis for these analyses. First, multi-group comparisons were conducted with regard to the type of significant life event experience. Since we were interested in potential differences between the work-related events experience group and the two other groups, a separate series of pairwise comparisons was conducted. First, the work-related events experience group was compared with the no-events group. The fit indices for the freely estimated multi-group model ranged from mediocre to good:  $\chi^2(1299) = 2252.59, p < .001, CFI = .911, TLI = .899, RMSEA = .034$ . In the following steps, the freely estimated model was compared with a series of models in which cross-lagged paths were constrained one at a time. Cross-lagged path estimates obtained in the compared groups are provided in Table 4 (additionally, information on autoregressive coefficients is provided in Appendix C). According to the results, the cross-lagged relationship between career adaptability and job satisfaction was more salient in the group that reported significant work-related events than in the group that experienced no events,  $\Delta\chi^2(1) = 7.93, p = .005$ . A

significant between-group difference was also found between the freely estimated model and the model with constrained cross-lagged paths from career adaptability to life satisfaction,  $\Delta\chi^2(1) = 4.01, p = .045$ . Furthermore, the work-related events experience group was compared to the non-work events experience group. The freely estimated multi-group model had the following fit indices:  $\chi^2(1299) = 2074.80, p < .001, CFI = .913, TLI = .901, RMSEA = .034$ . The results showed a significant difference in the cross-lagged relationship between career adaptability and job satisfaction between the two groups,  $\Delta\chi^2(1) = 5.09, p = .024$ . These findings are in line with Hypothesis 2a. However, it cannot be fully supported, since no between-group differences in the cross-lagged effects from career adaptability to perceived stress were observed. With regard to job fit, multi-group comparisons did not show any significant differences between the low job fit condition and the conditions of partial and good job fit, despite the varying size of the cross-lagged effects (see Table 4). Therefore, Hypothesis 2b was not supported. When comparing the two perceived career prospects conditions, a freely estimated multi-group model had good fit,  $\chi^2(1,299) = 2,301.26, p < .001, CFI = .939, TLI = .930, RMSEA = .028$ . A significant difference in the model fit between the freely estimated and the constrained model was observed when the path from career adaptability to job satisfaction was set as equal,  $\Delta\chi^2(1) = 4.83, p = .028$ . In line with Hypothesis 2c, the cross-lagged effect was more pronounced in the limited career prospects condition. No significant differences were found with regard to the remaining two paths. For this reason, partial support for Hypothesis 2c can be claimed.

### Discussion

The findings of the current study shed light on the longer-term aspects of adaptability resources within and outside of the work domain, suggesting that career adaptability may not only promote quick adaptation but may also sustain longer-term adaptation. We also contribute to a better understanding of the positive spillover effects of career adaptability in

adult workers, as two “life” outcomes were investigated in addition to the vocational outcome of job satisfaction. Moreover, we provide some novel insights into the conditions that may shape the way in which career adaptability takes effect. In doing so, the current study advances on the topics that to date have not been systematically addressed.

First, we were able to find support for the first set of hypotheses concerning the cross-lagged relationships between career adaptability and the investigated outcomes. As expected, a negative cross-lagged relationship between career adaptability and perceived stress in life was observed, whereas its association with job and life satisfaction was positive. Overall, such findings add to the previous evidence on the beneficial role of career adaptability in work-related (Johnston et al., 2013; Zacher & Griffin, 2015) and general well-being (Konstam et al., 2015). Among the three outcomes, career adaptability showed the strongest cross-lagged effect upon perceived stress in life. This particularly supports the proposition that adaptability resources provide a sustainable foundation for self-regulation in a wide array of life situations (see Rossier, 2015). Additionally, our results inform the theory by suggesting that the adaptive function of career adaptability may extend over longer time periods (i.e., two years) and involve not only vocational outcomes. On a theoretical level, this would imply that adaptability resources allow for interconnecting different “life-spaces” (cf. Super, 1980) and linking the life-space with the life-span (Savickas, 1997). Our findings draw a particular attention to career adaptability as a potentially complex construct, comprising the dynamic or processual part that can be quickly activated (Rossier, 2015) and the stable foundational part. Drawing on the latter, we imply that it may sustain longer-term adaptation by maintaining employee well-being. The current study also brings forward a clear message that career adaptability may be beneficial not only for people who are starting their career path but also for mid-career individuals, helping them to be better in charge of their lives by balancing out their perceived stress and thereby harmonizing different life domains (i.e., life-spaces) over

time. It is also worth noting that these findings were obtained in a representative sample of a Swiss working adult population, which means that the results are unlikely to be specific to a certain age or occupational group.

In a similar way, the present study adds to the theoretical discussion of the role of career adaptability in job and life satisfaction. In the career construction literature, career adaptability is emphasized as an essential resource for success and well-being (Hartung & Taber, 2008; Savickas, 2013), and our findings reveal a somewhat underexplored aspect of this claim. Specifically, we found that career adaptability may contribute to a sustainable job and life satisfaction as reflected in positive cross-lagged effects. As noted before, this may imply that career adaptability has a twofold effect on well-being. On the one hand, being a processual resource (Rossier, 2015) it supposedly contributes to immediate reactions to the challenges and constraints in the vocational environment. On the other hand, its stable part may also have a foundational role in longer-term adaptation. In this regard, our findings offer some evidence on the potentially “established” effects of career adaptability that help to sustain well-being in different life domains. This may be an important addition to the existing knowledge and to the theory building, as most of the previous studies have relied on the immediate link between adaptability resources and adaptive outcomes, leaving out the temporal dimension.

If interpreted within the framework of subjective well-being (e.g., Pavot & Diener, 2004), the current study implies that having well-developed career adaptability resources may somewhat relate to maintaining the (increased) baseline levels of job and life satisfaction over time. Notably, various self-regulatory activities and skills are considered among the factors that can have a positive impact on the base level of satisfaction with one’s life (e.g., Diener et al., 2006; Lyubomirsky et al., 2005) and our current findings may be useful in illustrating the latter proposition. On the other hand, the recent literature on adaptation theory (e.g.,



Matthews, Wayne, & Ford, 2014) also suggests another possibility to explain the observed cross-lagged effects. Specifically, one may imply that people with higher levels of career adaptability at Time 1 had activated their adaptability resources for some reason (e.g., to cope with a career challenge or a traumatic experience). Hence, the positive cross-lagged association between career adaptability and life satisfaction might indicate that career adaptability is part of the recovery process helping the well-being to return to its initial (higher) set point. Of course, relying only on two time points does not allow for the inspection of the impact of career adaptability on the change in well-being over the life course (which would be necessary to prove that career adaptability resources can shape the baseline levels of life and job satisfaction in a consistent way). Nevertheless, our findings could be a first step towards testing this hypothesis. The cross-lagged analysis allowed for controlling for the previous levels of well-being. Hence, we find some interesting evidence that the positive effect of career adaptability still remains significant, does not change after controlling for age, and, most importantly, is observed within a rather long time lag.

The second part of the present study looked at the role of boundary conditions in the relationship between career adaptability and the investigated outcomes. The findings partially supported our hypotheses showing that the experience of significant life events moderated the cross-lagged relationships between career adaptability and the satisfaction with one's job and life, whereas perceived career prospects were only significant as a moderator in the career adaptability–job satisfaction link. Perceived job fit, however, did not moderate any of the cross-lagged relationships between career adaptability and the outcomes. Concerning the experience of significant life events, the cross-lagged relationships between career adaptability and the outcomes were stronger and only significant among those participants who reported having experienced significant work-related events. Such findings fall in line with our expectations and could be explained by the self-regulatory function of career

adaptability in turbulent vocational situations (Rossier, 2015; Savickas & Porfeli, 2012).

Whether positive or negative in valence, a significant work event requires some adaptation; hence, applying career adaptability resources is particularly relevant for maintaining employees' well-being in this case (i.e., compared to non-turbulent situations or when significant life events do not concern the careers domain). While we did not separate between the stable part (i.e., readiness to adapt) and the dynamic part (i.e., explicit behavioral expressions of adaptability) when measuring career adaptability, our results may be interpreted taking the latter aspect into account. Specifically, it may be implied that in the condition of significant work-related events, the dynamic part of career adaptability had to be activated, and those employees who had higher baseline levels of career adaptability were more able to do that. This explains the moderation effect of T1 career adaptability predicting T2 well-being outcomes. In practical terms, this would mean that capitalizing on career adaptability resources in significant work events (or when anticipating negative work changes and transitions) might help avoid detrimental effects that are due to stress and uncertainty. This might be extremely important for those employees who have lower adaptability resources and would thus benefit from adaptability skill training.

Subsequently, low perceived career prospects represent a somewhat constrained vocational situation, in which scoring higher on career adaptability may be a means of retaining higher work-related well-being. It is interesting that the observed cross-lagged effect from career adaptability to job satisfaction was not only weaker, but it also turned insignificant, approximating zero in the good career prospects condition. There has been some controversy in the previous findings on job satisfaction, as not all studies have managed to demonstrate that career adaptability is directly related to it, instead proposing a mediation model (see Fiori et al., 2015). Our present study adds to this debate, suggesting that career adaptability does predict job satisfaction with moderator effects. Again, in line with the theory

(Savickas & Porfeli, 2012), career adaptability seems to be more relevant for job satisfaction under unfavorable or constrained vocational conditions that require some adaptive responses from the individual to maintain well-being.

The findings on job fit as a third boundary condition were rather unexpected as perceived job fit did not moderate any of the cross-lagged relationships. This may have been due to the time lag which might have been too long to precisely detect the moderation effects of job fit, because job fit was measured at T1 only. Another potential issue may have been the size of the compared job fit categories. The low job fit category was the smallest, including 14.5% of the sample, and this could have been one of the reasons why no significant effects were detected. It is interesting, however, that even though the cross-lagged coefficient from career adaptability to perceived stress in the low fit condition did not reach the significance level, it was rather similar to that in the high fit condition. This may be important from a theoretical point of view, as this would imply that in some cases career adaptability may have unconditional positive impact. Hence, the contingency rule may not apply to all outcomes. As seen from the current findings, the cross-lagged effects of career adaptability only seem to be contingent in the case of job and life satisfaction, but not in the case of perceived stress in life. This may indicate that career adaptability has both general (i.e., unconditional) and specific (i.e., bounded) effects. Since perceived stress in life was the only negatively framed outcome in the present study, one may infer that career adaptability might be unconditionally relevant for counteracting negative outcomes, whereas its impact on positive outcomes is more likely to be moderated by external factors. Some of the previous career adaptability studies have already raised the issue of boundary conditions (e.g., Zacher, Ambiel, & Noronha, 2015). However, to date, the existing evidence on them has been rather scant. Given the differential effects observed in the present study, our findings encourage a more detailed exploration of

potential moderator variables, additionally suggesting that in doing so, we may need to distinguish between the *preventive* and the *sustaining* function of adaptability resources.

### **Limitations and Future Research**

The present study has some shortcomings that need to be taken into account when interpreting the results and planning further research on the topic. Notably, despite the advantage of focusing on under-explored temporal effects, our analyses were based only on two measurements. Unfortunately, a two-wave cross-lagged design does not allow for detecting truly longitudinal relationships between career adaptability and employee well-being. Hence, while our findings suggest that career adaptability may have a lasting positive impact on work and life satisfaction, further longitudinal studies should rely on more measurement occasions to better delve into the dynamics of the relationship between adaptability resources and well-being. In addition, further investigations of the temporal aspects of cross-lagged relationships between career adaptability and outcomes are necessary. Given the present study design, we were not able to alternate between different time lags, which would be crucial in understanding the timing and stability of career adaptability effects. Future research could better address this aspect in two ways. First, it would be useful to inspect the occurrence and timing of the positive career adaptability effects by inspecting different time lags in the same study. Second, a somewhat overlooked research question concerns the intermediate role of (dynamic) adaptive responses that, in theory, link adaptability resources to adaptive outcomes. The distinction between adaptability resources, adaptive responses and adaptation is well articulated in the theory (Savickas, 2013); however, it has received only limited attention in research and would clearly benefit from a more detailed empirical investigation. Finally, it is important to more closely consider the various boundary conditions that may determine the link between career adaptability and its outcomes. In the present study, we were not able to fully support the moderation hypothesis.

One limitation here was that the moderators were mostly measured on a single-item basis. Also, some of the hypothesized moderators (e.g., perceived job fit) were subjectively defined. Whereas objectively unfavorable vocational situations are rather stable (hence, they can be defined as moderators), *perceptions* of job fit are presumably much more malleable and could be the result of career adaptability resources. Hence, we can only echo the call for more research on different boundary conditions that would shed light on the mechanisms that lie behind the positive outcomes of career adaptability. Given the possibility, it would be particularly useful to inspect conditions that denote a vocational stressor or a challenge in objective terms, as they can be more confidently defined as moderators.

### **Practical Implications**

From a practical perspective, the current study presents two implications. First, its findings draw attention to the benefits of career adaptability in mid-career adults. Despite certain boundary conditions that may moderate the link between career adaptability and employee well-being, our findings clearly showed that those scoring higher on adaptability resources were more likely to report positive outcomes in terms of higher job and life satisfaction and lower stress later in life. This implies that it may be useful to draw on developing career adaptability resources in career counseling as they may lead to sustainable well-being. There is some empirical evidence that adaptability skill training may ease school-to-work transitions (Koen, Klehe, & Van Vianen, 2012); presumably, similar career adaptability interventions could be beneficial not only for young people but also for mid-career professionals who need to master career transitions and to adapt to various changes in their working life. In this way, our suggestion is in line with the previous literature, underscoring the role of career adaptability in adult workers (e.g., Bimrose & Hearne, 2012). It is also worthwhile to note that against the backdrop of the policy agenda dedicated towards sustainable employment (e.g., An Agenda for New Skills and Jobs; European Commission,

2010), career adaptability might represent a set of important transversal skills that are sought after in the modern labor market, ensuring better employee integration and resilience. They may be particularly relevant for those who are less adaptable and thus face various difficulties integrating themselves in the labor market. Developing career adaptability skills may help such individuals learn how to be more proactive in addressing employment challenges and managing difficult vocational situations.

A second practical implication pertains to awareness raising within organizations. Various counseling and intervention tools that are developed within the career construction framework (see Savickas, 2013) provide good options for the implementation of individual-level interventions in organizations, which are aimed at fostering career adaptability among different types of employees (such as newcomers, employees after promotion or people with an anticipated career transition). To date, a great deal of attention has been devoted to increasing employee agency by identifying personal resources at work that help people to perform better and to cope more effectively with job demands (e.g., Van den Heuvel et al., 2010). Career adaptability represents the personal resources that help employees to demonstrate agency in the broader context, surpassing their work environment. In this way, career adaptability-oriented training may have a double benefit, ameliorating both one's work-related and general well-being.

### **Conclusion**

Career adaptability predicted employee well-being after two years, which indicates that adaptability resources may have longer-term benefits, representing a significant resilience factor for mid-career professionals. Theoretically, this implies that career adaptability may have a role in longer-term adaptation and may serve as a resource for maintaining well-being in different life domains (i.e., life spaces). The effect of career adaptability on employees' positive well-being indicators, but not on perceived stress in life, was stronger under certain

circumstances. This hints at the importance of boundary conditions in capitalizing on and determining the application of career adaptability resources, but also suggests a novel implication that career adaptability may have both general (i.e., unconditional) and specific (i.e., bounded) effects.

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## Appendix A

Variables measured at different measurement occasions

Table 1

*Variables measured at Time 1 and Time 2*

Variables	Time point tested	
<i>Main variables:</i>		
Career adaptability	T1	T2
Perceived stress in life	T1	T2
Job satisfaction	T1	T2
Life satisfaction	T1	T2
<i>Moderators:</i>		
Significant life events	-	T2
Perceived job fit	T1	-
Perceived career prospects	T1	-

*Note.* Time 1 measures of background characteristics were used in the analyses.

## Appendix B

## Measurement invariance analyses

Tables 1 to 4 present measurement invariance tests for the measures of career adaptability, job satisfaction, life satisfaction, and perceived stress in life. Measurement invariance was analyzed with regard to the delta values in Chi-square, CFI and RMSEA statistics, since there is no agreement in the literature on the best indicator of invariance. Non-invariance was stated when all three delta indicators exceeded the recommended cutoff values (i.e., a significant  $\Delta\chi^2$ ,  $\Delta\text{CFI} > .01$ , and  $\Delta\text{RMSEA} > .015$ ).

Table 1

*Career adaptability measurement invariance tests*

Model	$\chi^2(\text{df})$	CFI	TLI	RMSEA	Comparison	$\Delta\chi^2(\text{df})$	$\Delta\text{CFI}$	$\Delta\text{RMSEA}$
<i>Measurement occasions: T1 / T2</i>								
Baseline	23.41(15)	.998	.994	.024				
Factor loadings	26.59(19)	.998	.996	.020	Baseline model	3.18(4)	<-.001	-.004
<i>Survey language T1: FR / DE</i>								
Baseline	21.59(4)	.984	.922	.066				
Factor loadings	29.31(8)	.981	.953	.051	Baseline model	7.72(4)	-.003	-.015
<i>Survey language T2: FR / DE</i>								
Baseline	11.15(4)	.995	.973	.042				
Factor loadings	16.19(8)	.994	.985	.032	Baseline model	5.04(4)	-.001	-.010
<i>Career prospects: Limited / good</i>								
Baseline	4.30(4)	1.000	.999	.009				
Factor loadings	5.74(8)	1.000	>1.000	<.001	Baseline model	1.44(4)	<-.001	-.009

<i>Job fit: No / partial</i>								
Baseline	10.66(4)	.987	.936	.061				
Factor loadings	18.74(8)	.979	.948	.055	Baseline model	8.09(4)	-.008	-.006
<i>Job fit: No / yes</i>								
Baseline	0.62(4)	1.000	>1.000	<.001				
Factor loadings	6.17(8)	1.000	>1.000	<.001	Baseline model	5.54(4)	<-.001	<.001
<i>Job fit: Partial / yes</i>								
Baseline	10.16(4)	.993	.965	.042				
Factor loadings	12.41(8)	.995	.988	.025	Baseline model	2.25(4)	.002	-.017
<i>Significant events: Non-work / work-related</i>								
Baseline	4.29(4)	1.000	.998	.012				
Factor loadings	11.63(7) <sup>a</sup>	.993	.981	.036	Baseline model	7.35(3)	-.007	.024
<i>Significant events: No events / work-related</i>								
Baseline	6.47(4)	.997	.985	.031				
Factor loadings	14.77(8)	.992	.980	.036	Baseline model	8.31(4)	-.005	.005
<i>Significant events: No events / non-work related</i>								
Baseline	9.14(4)	.995	.976	.040				
Factor loadings	13.39(8)	.995	.987	.029	Baseline model	4.25(4)	<-.001	-.011

Note. <sup>a</sup>partial metric invariance obtained by relaxing the CAAS-Confidence factor loading. \*\*\**p* < .001.

Table 2

*Job satisfaction measurement invariance tests*

Model	$\chi^2$ (df)	CFI	TLI	RMSEA	Comparison	$\Delta\chi^2$ (df)	$\Delta$ CFI	$\Delta$ RMSEA
<i>Measurement occasions T1 / T2</i>								
Baseline	36.36(10)***	.981	.944	.036				
Factor loadings	44.01(15)***	.980	.959	.031	Baseline model	7.66(5)	-.001	-.005



<i>Survey language T1: FR / DE</i>								
Baseline	21.43(10)*	.982	.945	.034				
Factor loadings	47.59(15)***	.948	.895	.046	Baseline model	26.16(5)***	-.034	.012
<i>Survey language T2: FR / DE</i>								
Baseline	27.78(10)**	.978	.934	.042				
Factor loadings	40.68(15)***	.968	.937	.041	Baseline model	12.90(5)*	-.010	-.001
<i>Career prospects: limited / good</i>								
Baseline	21.56(10)*	.976	.928	.034				
Factor loadings	24.47(15)	.980	.961	.025	Baseline model	2.90(5)	.004	-.009
<i>Job fit: no / partial</i>								
Baseline	7.54(10)	1.000	>1.000	<.001				
Factor loadings	13.38(15)	1.000	>1.000	<.001	Baseline model	5.84(5)	<.001	<.001
<i>Job fit: no / yes</i>								
Baseline	22.46(10)*	.968	.905	.042				
Factor loadings	27.07(15)*	.969	.939	.034	Baseline model	4.61(5)	.001	-.008
<i>Job fit: partial / yes</i>								
Baseline	24.46(10)**	.973	.918	.041				
Factor loadings	27.36(15)*	.977	.953	.031	Baseline model	2.90(5)	.004	-.010
<i>Significant events: non-work / work-related</i>								
Baseline	18.21(10)	.977	.930	.040				
Factor loadings	25.86(15)*	.969	.939	.038	Baseline model	7.66(5)	-.008	-.002
<i>Significant events: no events / work-related</i>								
Baseline	26.15(10)**	.970	.911	.050				
Factor loadings	39.07(15)**	.956	.912	.050	Baseline model	12.92(5)*	.014	<.001
<i>Significant events: no events / non-work related</i>								
Baseline	23.61(10)**	.979	.936	.041				
Factor loadings	31.48(15)**	.974	.948	.037	Baseline model	7.87(5)	-.005	-.004

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 3

*Life satisfaction measurement invariance tests*

Model	$\chi^2$ (df)	CFI	TLI	RMSEA	Comparison	$\Delta\chi^2$ (df)	$\Delta$ CFI	$\Delta$ RMSEA
<i>Measurement occasions: T1 / T2</i>								
Baseline	144.15(10)***	.977	.931	.082				
Factor loadings	152.85(15)***	.976	.952	.068	Baseline model	8.70(5)	-.001	-.014
<i>Survey language T1: FR / DE</i>								
Baseline	71.92(10)***	.977	.931	.078				
Factor loadings	85.05(15)***	.974	.948	.068	Baseline model	13.13(5)*	-.003	-.010
<i>Survey language T2: FR / DE</i>								
Baseline	103.37(10)***	.971	.914	.096				
Factor loadings	105.76(15)***	.972	.944	.078	Baseline model	2.39(5)	.001	-.018
<i>Career prospects: limited / good</i>								
Baseline	64.66(10)***	.978	.935	.074				
Factor loadings	84.84(15)***	.972	.944	.068	Baseline model	20.19(5)**	-.006	-.006
<i>Job fit: no / partial</i>								
Baseline	41.15(10)***	.973	.920	.084				
Factor loadings	51.08(15)***	.969	.938	.074	Baseline model	9.93(5)	-.004	-.010
<i>Job fit: no / yes</i>								
Baseline	48.15(10)***	.979	.938	.073				
Factor loadings	58.32(15)***	.976	.953	.064	Baseline model	10.17(5)	-.003	-.009
<i>Job fit: partial / yes</i>								
Baseline	43.28(10)***	.985	.954	.062				
Factor loadings	49.06(15)***	.984	.968	.051	Baseline model	5.78(5)	-.001	-.011
<i>Significant events: non-work / work-related</i>								
Baseline	48.70(10)***	.977	.930	.087				
Factor loadings	52.93(15)***	.977	.955	.070	Baseline model	4.23(5)	<-.001	-.017
<i>Significant events: no events / work-related</i>								
Baseline	87.97(10)***	.960	.881	.110				

Factor loadings	93.32(15)***	.960	.920	.090	Baseline model	5.38(5)	<-.001	-.020
<i>Significant events: no events / non-work related</i>								
Baseline	85.67(10)***	.971	.941	.097				
Factor loadings	91.67(15)***	.970	.960	.080	Baseline model	6.00(5)	-.001	-.017

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 4

*Perceived stress measurement invariance tests*

Model	$\chi^2$ (df)	CFI	TLI	RMSEA	Comparison	$\Delta\chi^2$ (df)	$\Delta$ CFI	$\Delta$ RMSEA
<i>Measurement occasions: T1 / T2</i>								
Baseline	130.74(8)***	.949	.873	.087				
Factor loadings	133.81(13)***	.950	.923	.068	Baseline model	3.07(5)	.001	-.019
<i>Survey language T1: FR / DE</i>								
Baseline	15.87(8)*	.994	.984	.031				
Factor loadings	66.26(13)***	.997	.995	.018	Baseline model	1.34(5)	.003	-.013
<i>Survey language T2: FR / DE</i>								
Baseline	17.99(8)*	.992	.980	.035				
Factor loadings	27.40(13)*	.988	.982	.033	Baseline model	9.41(5)	-.004	-.002
<i>Career prospects: limited / good</i>								
Baseline	15.44(8)	.994	.985	.030				
Factor loadings	21.66(13)	.993	.989	.026	Baseline model	6.22(5)	-.001	-.004
<i>Job fit: no / partial</i>								
Baseline	3.78(8)	1.000	>1.000	<.001				
Factor loadings	15.96(13)	.994	.991	.023	Baseline model	12.18(5)*	-.006	.023
<i>Job fit: no / yes</i>								
Baseline	21.60(8)**	.985	.963	.049				
Factor loadings	28.88(13)**	.983	.973	.042	Baseline model	7.28(5)	-.002	-.007
<i>Job fit: partial / yes</i>								
Baseline	24.30(8)**	.984	.960	.049				

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Factor loadings	40.90(13)***	.973	.958	.050	Baseline model	16.60(5)**	-.011	.001
			<i>Significant events: non-work / work-related</i>					
Baseline	32.15(8)***	.962	.904	.077				
Factor loadings	43.93(13)***	.951	.925	.068	Baseline model	11.78(5)*	-.011	-.009
			<i>Significant events: no events / work-related</i>					
Baseline	26.23(8)**	.979	.948	.059				
Factor loadings	40.39(13)***	.969	.952	.057	Baseline model	14.16(5)*	-.010	-.002
			<i>Significant events: no events / non-work related</i>					
Baseline	19.34(8)*	.988	.971	.042				
Factor loadings	23.58(13)*	.989	.983	.032	Baseline model	4.24(5)	.001	-.010

Note. A residual correlation between two adjacent items added. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

## Appendix C

Autoregressive coefficients in moderation analyses

Table 1

*Autoregressive effects across boundary conditions*

Boundary conditions:	Autoregressive paths			
	CAAS	PSS	LS	JS
Life events (work-related)	.68***	.31***	.44***	.30**
Life events (non-work)	.77***	.54***	.66***	.56***
Life events (no events)	.70***	.55***	.64***	.54***
Job fit (no)	.73***	.54***	.71***	.50***
Job fit (partial)	.69***	.51***	.56***	.44***
Job fit (yes)	.72***	.50***	.59***	.54***
Career prospects (limited)	.70***	.53***	.65***	.48***
Career prospects (good)	.72***	.48***	.54***	.49***

*Note.* CAAS = career adaptability, PSS = perceived stress in life, LS = life satisfaction, JS = job satisfaction.

\*\* $p < .01$ , \*\*\* $p < .001$ .