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Abstract

The current labor market reflects manifold crises, with increasing dynamics in the work life and high unemployment rates. As a result, today's career contexts are challenging for individuals as well as for organizations. The need for career self-management demands higher resources to respond to shocks and to build bridges over troubled career paths. This thesis examines individual resources to respond to challenging conditions by means of qualitative research (biographical interviews), a cross sectional survey study in a representative sample and a literature review. The main theories and conceptual pillars of this thesis are the protean career concept, the framework of sustainable careers, Career Construction Theory and the Psychology of Working Theory. By examination of the intersection between structural conditions and agentic responses, the aim is to contribute to the understanding of our careers and the design of decent careers in the future. Hence, to provide insights into career crafting in challenging times – individually, yet not alone but embedded in context and in co-creation with others.

Publications based on this dissertation

- Nalis, I.** (2017). Bridges over breaches: agency and meaning as resources for dealing with new career demands. In *Job Demands in a Changing World of Work* (pp. 65-90). Springer, Cham.
- Nalis, I.,** Kubicek, B., & Korunka, C. (2021). From Shock to Shift–A Qualitative Analysis of Accounts in Mid-Career About Changes in the Career Path. *Frontiers in psychology*, 12, 507.
- Nalis, I.,** Kubicek, B., & Korunka C. (revision submitted). Resources to respond – a Career Construction Theory Perspective on demands, adaptability and career crafting. *Revised manuscript submitted for publication in Career in Development Quarterly.*
- Nalis, I.,** Kubicek, B., & Korunka (under revision). Like a bridge? A review of adaptability and identity as meta-skills in challenging career circumstances. *Manuscript under revision for resubmission in Zeitschrift für Arbeits- und Organisationspsychologie.*

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1. General Introduction: Changing Career Landscapes, Changing Career Paths

Over the past three decades, substantial changes in career development have transformed the work lives of people globally. Digitization, globalization and ecological factors have intensified demands for individuals to self-manage their careers (Callanan et al., 2020; Kubicek et al., 2015). These changes created a substantial shift in employment patterns and resulted in less stable career paths for individuals. Hence, research on modern career development requires an understanding of context (Gunz et al., 2016). Since 2007, the world of work has been transformed in multiple ways. In order to sketch the forces that pose risks and opportunities for careers, a series of contextual factors need to be understood as the backdrop of this thesis. First, the financial crisis of 2008–2009 caused a worldwide recession, which was followed by austerity politics that caused downsizing and outsourcing, especially in the public sector (Mazzucato, 2021). At the same time, technological advancements led to intensification of work for some and job loss for others (Hirschi, 2018; Kubicek et al., 2015). Other influential contextual factors include migration caused by wars in Syria and injustice due to globalization and colonialization in African countries (Obschonka et al. 2018; Wehrle et al., 2019). Moreover, individual wealth development from work is stunted and inequality is rising (Piketty, 2020). Last but foremost, severe climate damage has led to environmental disasters and demands restructuring of production and consumption on a global level (Kasser, 2011). Thus, already before the COVID-19 pandemic, under the influence of which parts of this doctoral thesis were conceived, it was apparent that work and careers were changing. This context prompted my research interest and overall research question: what actions can be taken by individuals who need and/or want to change their careers amidst a changing world of work?

The coronavirus pandemic has aggravated the labor market and led to a severe increase in underemployment and unemployment (Blustein et al., 2020). Moreover, Kramer and Kramer (2020)

assume that the shock presented by the COVID-19 pandemic will lead to further shifts regarding the values and statuses of occupations. Correspondingly, challenging contexts for careers have intensified. According to Callanan et al. (2020), increasing career demands reflect economic, technological, global and social forces. Moreover, these forces indicate a decline in stable long-term employment. Recent reports from the international Organisation for Economic Co-operation and Development (OECD) warned that already before the COVID-19 pandemic, half the jobs across OECD countries were expected to need to change (OECD, 2020). Given the shifts in technology, raised demands for qualifications, the growth of the gig economy and other changing circumstances, it is more necessary than ever not to lose sight of the capabilities and necessities to enable decent work as described in the United Nations (UN) Sustainable Development Goal (SDG) 8 pertaining to “decent work and economic growth” (UN, 2015).

The changes in career contexts are mirrored in concepts of “new careers,” which mostly emphasize individual agency in coping with the increasing demands for career-self management. While research on careers has typically been located at the intersection between micro and macro developments (Dokko et al., 2020), only recently has careers research examined the interplay between agency and structure (Callanan et al., 2020). Therefore, it is crucial to discover, define and develop how careers can be transformed in ways that are beneficial to the macro level, such as the environment, as much as the meso level of organizational climate and the micro level of individual success. This thesis, which is firmly grounded in the psychological stream of careers research (Gunz et al., 2020) and thus focuses on individual abilities, aims to broaden the understanding of ways to manage career challenges and to present ways to design future careers (Bal et al., 2019).

First, this thesis sheds light on career paths, including the valleys and peaks that arise from changes in the broader context described above. This thesis details resources that might help individuals overcome crises and ruptures in their career path and argues that the protean career (Hall, 2004, 2020; Hall et al., 2018) can serve as a pillar from which to build a bridge over career breaches.

The protean career is shown to be a resource, particularly for career change. Thus, self-directed and values-oriented career moves help individuals self-manage their careers. With reference to recent developments in career concepts such as the sustainable career (De Vos et al., 2018; Van der Heijden et al., 2015) and its dimensions of agency and meaning, this thesis provides a qualitative analysis of accounts of individuals who made mid-career changes.

Secondly, this thesis highlights the role of career shocks (Akkermans et al., 2018) on career paths and argues that career shocks are not an exception but the norm. Akkermans et al. (2018) built a categorization of shocks based on the assumptions, that shocks occur outside individual control, yet may vary in regard to their specific attributes; for instance predictability or valence. Though shocks are acknowledged as powerful influences on career paths, research has only recently systematically examined the role of shocks and possible responses to shocks. In particular, process-oriented perspectives are scarce, as qualitative research constitutes only a fraction of research on careers (Gunz et al., 2020). Moreover, career shocks are widely understood as triggers for changes in the career path (Seibert et al., 2013). Yet, corresponding to the lack of research on shocks, change-related responses to shocks need further investigation to increase understanding. This thesis presents a process model encompassing career shock, shock responses and career changes. Hence, it unearths the immediate as well as the long-term impacts of shocks on careers.

Thirdly, demands for individuals to self-manage their careers have intensified. In reference to the previously described pressure on the labor market and the individual, the concept of career adaptability has seen substantial research since its introduction by Savickas (1997). Career Construction Theory (CCT) and its corresponding Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012), which differentiates four distinct abilities to deal with challenging career contexts (concern, control, curiosity, confidence), have been translated into many languages. Moreover, two meta-analyses on career adaptability (Rudolph et al., 2017a; Rudolph et al., 2017b) led to testing and refining a career construction model of adaptability. Despite the substantial body of research on career

adaptability, few studies have examined the relation of intensified career planning and decision-making demands (Kubicek et al., 2015) and adapting responses. In particular, the moderating role of career-adaptability resources between intensified demands and individual responses seems relevant. Moreover, career crafting (Akkermans & Tims, 2017; Tims & Akkermans, 2020) allows insight into the agency dimension described within the sustainable career concept (De Vos et al., 2018; Van der Heijden et al., 2015). However, the question remains whether adapting responses are facilitated by career adaptability.

The final part of this thesis investigates further aspects that surfaced during the work on the concept of the protean career (Hall 2004; Hall et al., 2018) as well as questions related to challenging career contexts. The protean career concept describes adaptability and identity-awareness as crucial meta-skills to deal with challenges in career paths. Given the positive claims about career adaptability and identity, this thesis reviewed research on meta-skills to identify their potential ability to help vulnerable populations build a “decent career” in reference to the UN’s SDG 8, “decent work,” and the Psychology of Working Theory (PWT; Duffy et al., 2016, Duffy et al., 2018; Kenny et al., 2019). PWT was explicitly developed to understand and develop decent work with respect to marginalized and vulnerable populations. Hence, in addition to the protean career, the sustainable career framework, Career Construction Theory PWT serves as the fourth and final lens to examine how to foster the two crucial meta-skills required for a decent career for everyone who works. The use of PWT will also serve as a remedy to the general bias in career research regarding vulnerable populations (Bal & Doci, 2018). Much of the research to date on protean careers has used samples with higher education and positions (e.g., Gubler et al., 2014). Although the challenges in the labor market affect all individuals who work, the coronavirus pandemic has exacerbated inequalities (OECD, 2020). Therefore, the fourth component of this thesis examines whether career adaptability and identity can facilitate individuals’ bridge-building over the troubled waters of challenging career contexts.

Altogether, this thesis is founded on the assumption that it is high time to strengthen

psychological career competencies, thus enabling individuals to manage challenges and to design change. Moreover, this work aims to combine the agentic perspective on careers with other career perspectives informed by sociological viewpoints that allow examination of the organizational and public resources that need to be made available for career self-management. Hence, this work aims to extend the agentic focus to an integrative perspective to overcome the debate of agency versus structure (Mayrhofer, 2007; Schneidhofer et al., 2020). This thesis is embedded in a quarter century of career research on the protean career (Hall, 2004, 2020; Hall et al., 2018), the sustainable career framework (De Vos et al., 2018; Van der Heijden et al., 2015; Van der Heijden et al., 2020), Career Construction Theory (Savickas et al., 2014) and Psychology of Working Theory (Duffy et al., 2016). To summarize, this thesis aims to shed light on individual resources for developing a fulfilling career over the life-span from a holistic perspective of contextual challenges.

1.1. Agency and Meaning

The following sections review findings about resources to manage peaks and valleys on the career path, build bridges over breaches, respond to career shocks, and individually design a career change from the perspectives of agency and meaning. These sections draw from one book chapter and one out of three articles that form the basis of this thesis. The book chapter focuses on how individuals can create personal career paths, i.e. how they can build bridges over career breaches. The first of the four contributions to this thesis examines the career narratives of three individuals in mid-career and unearths their individual agency and meaning. The book chapter described below, provides a preliminary analysis from a larger qualitative study about challenges and changes on career paths from the perspective of mid-career individuals.

A variety of career concepts exist today. Despite their differences, these concepts have similar expectations with regard to agency and meaning (Baruch & Szucs, 2014). Agency refers to an individual's self-management of a career path and is of central importance. Meaning is another career

dimension and can appear in various forms (Van der Heijden et al., 2015). For instance, meaning is often represented in career research as a calling (Valcour, 2015; see Hall & Chandler, 2005, “The Career as a Calling”). One seminal career concept is the protean career concept (Hall, 2004; Hall et al., 2018), which was formulated in the 1970s (Hall, 1996) but became more popular in parallel with major shifts in the labor market in the 1990s. The protean career is built on the pillars of self-directedness and values-orientation; hence, the two dimensions of agency and meaning are strongly reflected (Gubler et al., 2014; Hall, 2004). Moreover, these two pillars are supposed to help individuals cope with the challenges of career self-management imposed by increasing job demands and decreasing job security due to automatization, globalization and cut-backs in social security nets.

Sullivan and Baruch (2009) outlined the developments in the labor market and their impact on individuals’ careers. They emphasize that employees realized that narratives about a linear career development and success were no longer attainable. Current research on wealth development and distribution in industrialized countries with developed welfare systems (e.g., Germany) has shown that since the 1990s, cohorts that enter the labor market are less likely to reach an income level similar to or above the post-war and Baby Boomer generations (Friedrichs, 2021). Hence, the need for individuals to self-manage their careers has increased.

Moreover, several authors describe a breach of the psychological contract (Rousseau, 1989) related to negative outcomes for individuals, organizations and societies alike. The psychological contract was conceived as a concept that widens the perspective on the relationship between employers and employees. It extends the view from legal and financial terms only, onto social and emotional facets of the relationship of individuals with work. However, a decrease in long-term contracts also resulted in the breach of the career contract and led to more focus on the transactional (hence, money) than the relational aspects of employment. For instance, Ng et al. (2013) showed that the breach of the career contract can be linked to various negative outcomes such as the loss of social resources. The protean career was conceived as a reaction to these shifts (Hall, 1996), and describes a change of

responsibility for career management from organizations to individuals. Despite the demands and exhaustion that might occur from increased career self-management demands, the breach in the psychological career contract might also allow the re-assessment of careers and success from a subjective point of view. Research on shocks and chance events also shows the potential of ruptures to stimulate reflection about life goals and work identity (Akkermans et al., 2018; Ibarra, 2004; Seibert et al., 2013).

In their meta-analysis of the protean career concept, Gubler et al. (2014) highlighted a research gap in the understanding of actual protean career paths. Specifically, insights about how individuals developed their careers and coped with ruptures were missing. The substantial body of research on the protean career concept, combined with the lack of research on actual career paths, led to the research question of how can individuals combine external demands and individual desires and develop successful strategies for career development? This thesis first presents findings from the initial investigation into career paths described in the book chapter presented herein. Second, an article containing a detailed analysis of 25 career paths is presented.

The contribution of the career narratives lies in unearthing different tactics used by individuals to manage the new demands of career self-management. This section of the thesis stems from understanding the protean career concept as a transformational idea (Hall, 1996, 2004) and that agency and meaning could serve as valuable resources for career development in changing times. The focus on agency and meaning rather than the protean career signifiers of self-directedness and meaning was chosen in order to embed the interview study within larger perspectives on careers including emerging concepts such as the sustainable career (De Vos et al., 2018; Van der Heijden et al., 2015; Van der Heijden et al., 2020).

Bridges over Breaches: Agency and Meaning as Resources for Dealing with New Career Demands (Nalis, Irina, 2017; brief overview, for details see the attached reprint)

This chapter provides a theoretical and qualitative exploration of the role of agency and meaning in handling career self-management. The chapter presents the results of a qualitative study in the form of analysis of narratives of three individuals who had experienced ruptures in their careers. To investigate the individuals' actions and reflections on career development, biographical interviews were conducted and thematically analyzed.

First, the chapter reviews the protean career and provides links to other emerging career concepts such as the sustainable careers framework. Moreover, research on potentially stabilizing forces in turbulent career paths such as career crafting, career resilience and career narratives are offered. With an introduction on breaches in career contracts followed by a review of the protean career concept, individuals' ways of determining agency and meaning are analyzed. The three career narratives presented illustrate strategies that were applied to meet the heightened learning and adaptability demands of career development in general and in the case of career change specifically. These career paths illustrate how self-directed and values-oriented career moves serve as resources in the face of heightened career self-management demands and desires.

The interviews analyzed in this chapter were derived from a larger study into the development of career paths after shocks. This chapter contributes insight into building bridges over career breaches. The final part of the chapter offers several practical recommendations for the development and maintenance of career paths with a heart for both the individual and organizational level.

The study presented in the chapter demonstrates how people experienced career breaches yet subsequently found ways to build career paths that better suited their values and were more closely tied to subjective success than their original professions and paths allowed. Hence, the three career narratives illustrate the potential of agency and meaning as resources for dealing with the demands of

career management. Despite a focus on individual choices, this book chapter acknowledges that careers develop from the interplay of agentic choices, opportunities and constraints (Schneidhofer et al., 2020). Hence, career paths, with their valleys and peaks, play out in the field of structural or relational influences. Moreover, the three career narratives provide insight on how the interviewed individuals transformed their professional lives over time. Particularly, and in line with research on subjective success (e.g., Gunz et al., 2019; Mayrhofer et al., 2016), their ideas of success changed along the protean career path (Hall, 2004; Hall & Chandler, 2005) and allowed for the development of personal ideas of meaning.

1.2. Career Shocks and Career Change

The second contribution to this thesis, engages further with the question of individual responses to external challenges posed on the development of career paths. Particularly, the experience of career shocks (Akkermans et al., 2018) and how these experiences lead to reflection and action (Seibert et al., 2013), was identified as a research gap. To further the understanding of the interplay of agency and structure (Gunz et al., 2016; Schneidhofer et al., 2020), the need to examine the process of moving from pre- to post-shock career paths emerged, as career shocks are the norm, not the exception. For instance, Akkermans et al. (2018) cited earlier research that demonstrated that shocks throughout the work life are common and impact long-term career outcomes.

Career shocks are generally understood as unexpected events that occur outside the control of the individual. Akkermans et al. (2018) argued that the majority of the working population experience career shocks. Accordingly, Akkermans et al. (2018) developed a non-exhaustive list of five different attributes to describe, analyze, and categorize career shocks: frequency, predictability/controllability, valence, duration, and source. In their development of a framework to study career shocks, Akkermans et al. (2018) showed that until recently much research and counseling on career-development held unrealistic assumptions of a “makeable career”, which is developed by an

independent career actor. This study follows claims to provide a complementary view on career development that bridges agency, which is investigated in individual responses to external shocks with context, examined from the perspective of shocks. Hence, how careers can be developed at the intersection of external influences and individual choices.

Alongside the high prevalence of shocks, another common phenomenon that shapes individuals' careers are changes between jobs or changes of career into a different field due to shocks in the career (e.g., caused by unemployment). It needs to be acknowledged that linear and upward careers are generally not the norm, nor are career paths that start and end within the same profession and the same employer, (Akkermans & Kubasch, 2017; Barley et al., 2017; Rice, 2014).

To emphasize the prevalence of change in career paths, data from the U.S. Bureau of Labor Statistics (Ahn et al., 2017) shows that people undergo an average of twelve job changes throughout their work lives. The prevalence and number of career changes is of particular concern for various reasons and demands substantial changes in training and education in soft and hard skills. This new reality also calls for transformations in organizations and the basis of calculations of social security systems (e.g., financial aid for unemployment but also for upskilling), as most of these factors are based on unrealistic assumptions of continuous employment throughout the entire work life. Likewise, concepts such as the universal basic income are more and more thoroughly discussed as an alternative or addition to support phases of transition (Prainsack, 2020).

The ubiquity of changes in careers requires changes in organizational career development and practices in human resources and recruitment, which still search applicants' curriculum vitae for linear, stable career developments within one field that steadily moves upward. Moreover, schemes for payment and advancements in organizations, fail to recognize the reality of career changes. Correspondingly, individuals still tend to experience shocks and the need and/or wish for changes on the career path as individual failures, sometimes even as stigma (Seibert et al., 2016).

Thus, to shed light on real career paths and in reference to the observations of Akkermans et al. (2018) about the unrealistic ideal of the “makeable career,” the second study set out to investigate the impact of career shocks on individuals’ career paths, with a special focus on changes that were prompted by shocks (e.g., changes in careers).

From Shock to Shift – A Qualitative Analysis of Accounts in Mid-Career about the Process of Career Change (Nalis, Kubicek, & Korunka, 2021, brief overview, for details see the attached reprint)

This qualitative interview study aims to clarify how career paths are impacted by career shocks and the interplay of external shocks and individual responses that ignites career changes. By choosing in-depth qualitative interviews as data, this study allowed the examination of the process from shock to shifts in careers by analyzing responses to different characteristics of shocks and how the experience of shocks shaped the career path over time. This study lays out how individuals shifted their careers due to shocks with different attributes (frequency, predictability/controllability, valence, duration, source) to a satisfying path.

Data from 25 semi-structured interviews from individuals who had experienced shocks in their work lives allowed the investigation and understanding of the process of career development over time, from career shocks to immediate responses to shocks, with special attention to career change.

Combining inductive and deductive methodology informed by Gioia methodology (Gioia et al., 2013) for theory development and framing within the categorization of career shocks as provided by Akkermans et al. (2018) allowed the discovery of a set of different responses to the five different attributes of shocks.

A second round of analysis focused on the development of the career path over time, and identified the role of certain attributes that resulted in different career change

profiles. This analysis also showed that different attributes of career shocks were linked to the magnitude of career changes. Thus, whether individuals were changing jobs in response to the shock or moving into an entirely different field appeared to be influenced by the types of shock encountered.

The theoretical contribution of this study is summarized in a process model examining pre- to post-shock careers. The findings of this qualitative exploration emphasize the role of the unplannable in career development and provide researchers and practitioners with a variety of possibilities for individual career development motivated by career shocks and their prevalence. Furthermore, the findings lay the groundwork for future theory development and research on career shocks and aim to enable the development of coping strategies.

This article presents a qualitative study that focused on changes in careers after experiences of career shocks. The qualitative analysis, which combined an inductive method and theory development based on Gioia et al. (2013) with a deductive lens provided by the categorization of career shocks by Akkermans et al. (2018), unearthed the impact of shocks on immediate responses and showed how these translated into different career-change profiles.

1.3. Career Crafting

The following section presents two articles that shed light on the role of career adaptability from two different angles. The first article presented below focuses on the relation between intensified career planning and decision-making demands and the adapting response of career crafting. The next article reviews career adaptability as one of two meta-skills for career development with special regard to its potential to help individuals face challenging contexts.

According to Savickas' Career Construction Theory (CCT; Savickas, 1997; Savickas & Porfeli, 2012), career development differs among individuals in regard to readiness, adaptability resources and adapting responses. In the article presented below, the CCT model of adaptation, as derived through meta-analysis into career adaptability by Rudolph et al. (2017a), was chosen as a framework to formulate hypotheses about the associations between structural demands, adaptability resources, and the adapting response of career crafting.

Although ample research provides support for career adaptability as beneficial to deal with career self-management tasks, a lack of understanding of structural demands could be detected in Rudolph et al.'s (2017a) meta-analysis of career adaptability. The CCT model of career adaptation offers an interesting lens as with the CCT model of career adaptability, career adaptivity is assumed to be a trait. Hence, the role of external predictors of career adaptability are not comprehensively captured.

Therefore, the first research goal was to provide evidence as to whether and how intensified career planning and decision-making demands were antecedents to adapting responses. Within the concept of intensified demands (Kubicek et al., 2015), the subdimension of intensified career planning and decision-making demands conceptualizes a change in career demands. Building on the theory of social acceleration (Rosa, 2016), the concept of intensification of career planning and decision-making demands aims to capture the growing demands placed on individuals' career development. Thus, the corresponding subscale of intensified career planning and decision-making demands from the Intensification of Demands Scale (IDS; Kubicek et al., 2015) was used to investigate structural antecedents to career adaptability and adapting responses.

Thus far, few studies have considered adaptability as a moderator. While career adaptability outcomes have attracted a substantial amount of research, a gap remains in the understanding of the relation of career adaptability to actual adapting responses, such as provided by the concept of career crafting. Career crafting is embedded in the framework of sustainable careers (De Vos et al., 2018; Van der Heijden et al., 2015; Van der Heijden et al., 2020) and was conceived by Akkermans and Tims

(2017) to describe individuals' concrete responses of action to and reflection on career self-management demands.

Career adaptability comprises four subdimensions (concern, control, curiosity, and confidence) that have been shown to have distinctive qualities and impacts on career self-management (Rudolph et al., 2017a; Rudolph et al., 2017b). The four career adapt-abilities can be measured separately with the C-AAS (Savickas & Porfeli, 2012). Despite the availability of this scale, most research examines the concept from an unidimensional point of view. This article contributes to a more fine-grained understanding of the interplay of each of the career adaptability dimensions between structurally imposed demands and individual career crafting responses.

Resources to Respond: A Career Construction Theory Perspective on Demands, Adaptability and Career Crafting (Nalis, Kubicek, & Korunka, resubmitted; brief overview, for details see the attached reprint)

This article investigates the association between intensified career planning and decision-making demands with both dimensions of career crafting (goal setting and networking). In addition, this study countered the tendency of sampling individuals with higher educational backgrounds by choosing to conduct a survey with a sample that was representative of the German workforce.

This study tested and extended the Career Construction Theory's model of adaptation and provides valuable insights into the relationship of contextual demands and individual responses. This cross-sectional survey study focused on the role of adaptability resources in the response to intensified career demands and whether these resources strengthened the positive relationship between demands and the adapting response of career crafting. Thus, this study examined structural predictors for adapting responses and

investigated the interaction between intensified demands and career crafting responses moderated by career adaptability. The model was tested with structural equation modeling.

The findings from a latent structure analysis showed that each of the four career adaptabilities served as a resource to respond. The positive relationship between intensified career demands and the career crafting responses of goal setting/networking and reflection was strengthened by career adaptability resources.

To summarize, the aim of this paper was to investigate the interplay of external demands and individual adapting responses for coping with the intensified demands of career self-management. The central contribution of this paper lies in the integration of a predictor for career adaptability that is not trait based but rather reflects the current intensified career planning and decision-making demands in the CCT model of adaptation. Hence, this paper emphasizes the role of structural conditions in hindering or fostering career self-management.

Moreover, this study showed that the four career adaptabilities had a slight but different and positive impact on the relation between intensified career planning and decision-making demands and career crafting. To summarize, this article contributes to the literature by filling gaps on structural predictors for adapting responses and the role of career adaptability as a moderator between structural demands and individual adapting responses.

1.4. Meta-skills Adaptability and Identity

The final article describes antecedents and outcomes of the two meta-skills, career adaptability and identity, and their role in challenging career circumstances. According to Hall (2004) and Gubler et al. (2014), meta-skills facilitate career competencies such as learning from past experiences and developing new skills. Hence, to enable career self-management. From the perspective of individual abilities to cope with challenging circumstances, it has been shown that the meta-skills of adaptability

and identity equip individuals to self-manage careers in accordance with needs and goals (Gubler et al., 2014; Lo Presti & Pluviano, 2016; Negru-Subtirica et al., 2015). In times of economic constraints, the awareness of barriers to career development is crucial. Moreover, large numbers of people are vulnerable to unemployment (e.g., young people, Chui et al., 2020) due to experiences of marginalization. Challenges in careers are not inherently good or bad but rather depend on how individuals perceive their ability to cope with the challenges. Hence, there is a need to acknowledge structural barriers that are linked to demographic variables, as Kostal and Wiernik (2017) have demonstrated that small disadvantages can have a strong impact on individual career paths.

Thus, in order to reflect critical voices pointing out neglected areas in careers research, mainly the overemphasis on agency (Forrier et al., 2018) and the neglect of contextual constraints (Gunz et al., 2011), this study set out to review the state of research on the two meta-skills in challenging contexts.

The review builds on the conceptualization of adaptability and identity as meta-skills, as described in the protean career concept (Gubler et al., 2014; Hall, 2004), since they are supposed to help in overcoming obstacles on career paths. Current refinements of the protean career concept were presented in an integrative review by Hall et al. (2018). In this review, adaptability was portrayed as an ability that helps an individual to change during unstable conditions, while identity was defined as the balancing meta-skill that provides an individual with a clear sense of the self and personal values.

This review aimed to bridge the protean career concept—which has often been associated with the agentic emphasis on career development—with a perspective that was designed to examine work and careers from an inclusive point of view, namely the Psychology of Working Theory (PWT) and its conceptualization of decent work (Duffy et al., 2018; Duffy et al., 2016; Kenny et al., 2019). PWT was chosen as a lens for the review of structural barriers in the examined literature, which encompasses one or both of the meta-skills in challenging circumstances. The following article reviews the literature on the meta-skills of adaptability and identity from the perspective of challenging career circumstances.

Like a Bridge? Adaptability and Identity as Skills for Dealing with Challenging Career

Contexts (Nalis, Kubicek & Korunka submitted; brief overview, for details see the attached reprint)

Career development is challenged by high unemployment rates and other contextual factors that increase the demands on individuals for career self-management. Derived from the protean career concept, adaptability and identity are defined as meta-skills that are supposed to enable individual career development in regard to self-directed and values-oriented career moves. This literature review identified articles which examined the meta-skills for career development, adaptability and identity in challenging contexts. In addition, to the overview of the contexts in which research has looked into the potential of the meta-skills in coping with structural barriers, antecedents and outcomes of adaptability and identity were laid out. This review contributes to questions on the interplay of macro and micro levels in career development and brings light to blind spots in career research, namely whether assumptions about the meta-skills of career adaptability and identity are also applicable in career contexts that are characterized by challenges. The specific question addressed concerns underlines the potential the potential of the meta-skills in regard to their role as a bridge over troubled waters for *everyone* who is working. However, it became visible that more research especially in regard to career identity and the interplay between both meta-skills is needed.

The findings lay the groundwork for further theory and research on career development in challenging contexts by contributing a conceptual model of a decent career. The decent career model encompasses antecedents to the development of the meta-skills of career adaptability and identity and provides a four-dimensional view on outcomes of career development under challenging circumstances. Hence the model presents ways to shape a decent career path despite structural barriers posed by demographic differences (e.g., age,

ethnicity, gender) and unfavorable conditions (e.g., crisis economy) to nurture individual skills and provide for beneficial outcomes from an individual, organizational and societal perspective.

The presented article summarizes existing research and the circumstances under which the meta-skills of career adaptability and identity can serve as pillars for a bridge over the troubled waters of careers today. It proposes the model of a decent career with malleable antecedents and a four-fold categorization of outcomes that integrate the individual's perspective of success both from subjective and objective measurements as well as organizational outcomes. Further, it utilizes a perspective that bridges individual career experiences and societal relevance (e.g., in regard to environmentally conscious behavior). With reference to the concept of decent work as mentioned in the UN SDG 8 and operationalized in PWT with a scale for decent work (Kenny et al., 2019), this review lays base for further research and practice in career counseling pertaining to the development of careers that are decent. Furthermore, the article aims to underpin the development of a perspective on careers that is sustainable both for the majority of the working population and the larger economic and ecological context.

2. Summary of Contributions

The aim of this doctoral thesis is to contribute to the understanding of resources for career development in challenging career contexts that have emerged due to changes in the world of work and in regard to individual needs and wishes for change. The findings of four independent publications that form the base of this doctoral thesis shed new light on the interplay of agency and structure for career development. This doctoral thesis is based on four manuscripts which were either accepted, invited for a revision, or submitted for publication in peer-reviewed academic journals and books. The previous

sections provided an overview of these publications. In this section, the findings and limitations will be discussed in regard to theoretical implications and future avenues for research and practice.

The present thesis contributes to existing career research and provides theoretical implications in regard to research on contemporary careers and the challenges and changes individuals face. The first two research articles, in which individuals' exploration of career paths were shaped by challenges, provide insight into the interplay between external factors and individual responses with special attention to temporal aspects (Mayrhofer et al., 2020) as well as individual career choices and career changes triggered by external impacts on the career path.

Increasingly, more authors point to the need to understand the interplay of structure and agency in career development (Gunz et al., 2020; Gunz et al., 2016; Schneidhofer et al., 2020). Moreover, definitions and measurements for success (Mayrhofer et al., 2016) are changing to reflect a broader understanding of a fulfilling work life. Building on previous research on the changing nature of success caused by breaches in the psychological contract (Clinton & Guest, 2014; Hall, 2004) the book chapter, which was presented first in the preceding reviews, examined individuals' attempts to build their careers corresponding to their needs. According to recent research, sustainable careers are signaled by health, happiness and productivity (De Vos et al., 2018; Hirschi et al., 2020). The findings of the book chapter support these claims and show that agency and meaning can allow individuals to build bridges over breaches in career paths. Hence, the search for meaning and the personal quest for success help individuals shape their careers above and beyond merely coping with challenging circumstances.

In the article on post-shock careers the full data of 25 career biographical interviews were available for analysis. The analysis unearthed the impact of shocks on career paths and found different responses to shocks according to how the shock was described. The derived process model, which encompasses the shock, individuals' reactions, and outcomes, aims to further theoretical development on the role of external impacts on careers. Three central topics that seem fruitful for future research are

the interplay of shocks and the development and achievement of subjective success, the impact of shocks on employability and career changes, and the transferability of skills.

The aspect of transferability can also be linked to the context of the COVID-19 pandemic. Recent public surveys show that in many professions that have been hit especially hard, large groups of people consider leaving the field (e.g., arts and entertainment, the hospitality sector or the travel industry). Hence, the body of research derived in careers research, especially in questions related to employability (Forrier et al., 2018) should be considered for development of training and counselling; for instance, in meaning-oriented counseling (e.g., through narrative practice, Ibarra & Barbulescu, 2010) and training for beneficial attribution styles (Seibert et al., 2016). Moreover, conceptualizations and scales for measuring success from multi-dimensional perspectives (e.g., Mayrhofer et al., 2016; Shockley et al., 2016) could be applied in development of interventions in response to the pandemic.

The first two publications reviewed in this thesis provide insight into career paths that have seen difficulties independent of the pandemic, yet are nonetheless relevant for future ways in which individuals could build their careers using individual, organizational, relational and public resources. Although the first two publications emphasized individual responses, the career narratives also showed the necessity of social security nets for individuals dealing with uncontrollable and the need to change; whether individuals could make productive use of a breach in their careers had many influencing factors and was built on different pillars. However, the role of financial security was underlined in different accounts, whether it was financial aid for unemployment or maternity leave. Moreover, education and re-training were a central pillar in these narratives, as changing careers to another field demands new skills. Several participants thus made use of the Austrian model of the “Bildungskarenz,” a state-sponsored sabbatical of paid leave to up-skill or re-skill.

The second context this thesis contributes to is research on career adaptability. In the study of resources to respond, career adaptability (measured with the Career Adapt-Ability Scale, C-AAS, Savkikas & Porfeli, 2012) was examined as a moderator of the relationship between intensified career

demands (Kubicek et al., 2015) and the adapting response of career crafting (Akkermans & Tims, 2017; Tims & Akkermans, 2020). Using a representative sample, this research yielded insights into the differences and similarities of the positive impacts of the four career adaptability resources of concern, control, curiosity and confidence on the relationship between demands and responses. Although a substantial body of research has already examined positive aspects of career adaptability, much of this research was based on the trait perspective of career adaptivity, hence investigating intensification of demands provided a novel angle on career adaptability and adaptive responses (Rudolph et al., 2017a).

The fourth contribution to this thesis, the review article on adaptability and identity as meta-skills to deal with challenging career circumstances, focused on the literature that extends the sometimes-narrow choice of samples into career development. With reference to the Psychology of Working Theory (Duffy et al, 2016), the state of research on the presumably positive forces of adaptability and identity—as claimed in one of the most influential concepts of new careers, the protean career concept (Hall, 2004; Hall et al., 2018) – was examined in regard to the knowledge of antecedents to foster the meta-skills as well as understanding of outcomes. By deliberately choosing to only review research that was undertaken in vulnerable populations, a completing perspective on career self-management in challenging times was provided. The review on adaptability and identity as pillars for a bridge over challenging career contexts resulted in a conceptual model of antecedents and outcomes of a decent career. The conceptual model of the decent career could serve to further research with regard to challenging circumstances. In addition, as shown by this review, career self-management, while demanding, provides an opportunity for wide parts of the working population and is not limited and to individuals with less challenging backgrounds. Hence, the review challenges lay assumptions that “new careers” are only for the well-off and invites research into and re-design of careers and the labor market for everyone in order to foster decent work (UN SDG 8) and decent careers.

2.1. Limitations and Directions for Further Research

In approaching the end of this work, it must be acknowledged that this thesis has both strengths and limitations. A central strength of this thesis is its combination of qualitative and quantitative research and its aim to provide the basis of further theory development. Moreover, the studies that form the foundation of this thesis have examined the realm of career self-management with special attention to challenges to agency while simultaneously providing insight into the opportunities that individuals, organizations and society as a whole can pursue. Hence, this work furthers understanding of the interplay of structure and agency in career development. Notwithstanding these strengths, the data is based on self-reports. Therefore, to extend and improve understanding of the interplay of individual career self-management and structural context, future research should integrate additional socio-economic data. For example, future research could combine self-reported data with data on income development and changes in the labor market such as job prospects. Moreover, intervention studies could be developed to further investigate the malleability of responses and meta-skills and their outcomes for different population groups and different career stages, both in regard to age as well as broader perspectives of life-domains and individual ideas of success.

Generally, assumptions and approaches in careers research must be challenged, particularly since the COVID-19 pandemic has exacerbated unemployment (Blustein et al., 2020) in vulnerable populations (e.g., in relation to ethnic background, Owens et al., 2019) and social classes (Blustein et al., 2019; Duffy et al., 2016). Further macro and micro shifts in the world of work as a result of the COVID-19 pandemic require anticipation and should be acted upon. For instance, Kramer and Kramer (2020) assume that questions of status, meaningfulness and calling of different occupations will see changes along with increased occupational segmentation, resulting in inequality and gaps between “good jobs” and “bad jobs.” In a similar vein, Blustein et al. (2020) call for a research agenda on unemployment in the time of COVID-19.

From a theoretical perspective, future research into the nature of the interplay of structure and agency must also be wary of overly optimistic claims and must acknowledge trauma and barriers to career self-development such as alienation. Alienation is of special interest as a factor hindering career development and outcomes. Jaeggi (2005) described alienation as a prevalent phenomenon in the current time of technological and social acceleration (Rosa, 2016). Alienation might be more prevalent today than throughout the decades after Karl Marx first introduced the term in 1844. In his economic-philosophical manuscripts from 1844, Marx's definition of alienation includes the four results of alienating work: first, the worker is alienated from the product of his work; second, the worker is alienated from his activity; third, following German humanistic tradition, the worker is alienated from himself as a producer; and fourth, the worker is alienated from others (quoted in Jaeggi, 2005, p. 29-30). Situations similar to those described by Marx can be found in many current workplaces. Today, most countries are characterized by industrial or service economies in which the employee has only little or no influence on the means of production. A further step towards alienation due to changing work environments might lie in the platform economy and social media, in which individuals are no longer consumers but, because of their data, become the products themselves (as proposed by Shoshana Zuboff in her influential work on surveillance capitalism, 2019). Another sign of alienation might be the instrumentalization of social bonds (Chiaburu & De Vos, 2013; Jaeggi, 2005), in which friendship is replaced by networking (Turkle, 2011). Notwithstanding these risks, digitization might help individuals to foster networks and find peers for their individual career development as much as they experience further pressure and the feeling of being left out.

This thesis also contains some practical implications. Although the data was gathered before the COVID-19 pandemic, insights from this thesis on developing satisfying career paths despite challenges provide valuable perspectives on dealing with career shocks stemming from this global crisis that has severely affected the labor market. Much of the findings have the potential to be

applied in career counseling (e.g., using individual responses and profiles to identify coping strategies).

2.2. Conclusion and Outlook

This thesis deals with career development in challenging contexts, which is a reality of work lives globally and for the majority of people trying to find, maintain and succeed in paid labor. In line with the overarching focus of this thesis on the interplay of structure and agency in career development, it is crucial both to understand and to improve the interplay of public and private. In regard to career development in challenging contexts, the fostering of psychological resources must be understood, and opportunities to do so must be designed, in tandem with a better equipped and innovative public sector (Mazzucato, 2021).

Consequently, new conditions on the labor market and for social security system must be designed to better reflect the changes and needs of individuals, organizations and society in our times. It must be acknowledged that linear and upward moving career paths within one sector and one profession are the exception, not the basis on which to build the future of work. Psychologists, careers researchers and counsellors can work to change the dominant social narratives about careers and success (Blustein et al., 2020) and to “discover how to provide more of these career enhancing experiences to workers around the world” (Hall, 2019, p. 405). To emphasize this necessity, Hall (2019) referred to Erich Fromm’s seminal work and his investigations of “freedom from” (e.g., the absence of pain or punishment) and “freedom to” (e.g., sense-making, social connections) in regard to career paths and the necessary learning process to design one’s own path according to own’s need and capabilities, yet not alone but in cooperation (Sennet, 2012). Therefore, I wish to end with a quote by Hannah Arendt (1958/2013) who wrote the following in her influential deliberations on human condition and the working life, the *vita activa*: “Action, as distinguished from fabrication, is never possible in isolation; to be isolated is to be deprived of the capacity to act.”

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4. Reprints of Publications

4.1. Agency and Meaning

Nalis, I. (2017). Bridges over breaches: agency and meaning as resources for dealing with new career demands. In *Job Demands in a Changing World of Work* (pp. 65-90). Springer, Cham.

BRIDGES OVER BREACHES:

Agency and meaning as resources for dealing with new career demands

Introduction

The nature of careers has changed: today's careers are less predictable and less stable due to the fact that they last longer while allowing for decreasing lengths of individual career episodes (De Vos & Van der Heijden, 2015). According to many career researchers, decreases in job security and an intensification of learning demands has led to an increase in individual responsibility towards career self-management (see e.g., Forrier, Verbruggen & De Cuyper, 2015; Brown et al., 2014; Bimrose & Hearne, 2012). Furthermore, over the course of working life, individuals face more complex and competitive careers as the traditional career contract of linear and upward moving careers has been broken and the predictability of careers has almost ceased to exist (Spurk, Nagy, & Hirschi, 2016; Akkermans, De Vos, & Van der Heijden, 2016; Hall & Moss, 1998). This requires frequent changes in and outside of organizations; hence demands for the self-management of careers have risen.

Given these circumstances, it is important to gain a better understanding of the resources for career self-management as those resources might help individuals build bridges over the breaches they encounter throughout their working life. When looking at resources for career self-management, I will apply what has become the classic definition of careers by Arthur et al. (1989), who defined "*career as the evolving sequence of a person's work experiences over time*" (p. 8, Dries, Pepermans & De Kepeel, 2008).

Many of the various competing career concepts of today (Baruch & Szucs, 2014) contain assumptions with regard to agency and meaning. Agency, on the one hand, mostly refers to self-

management of a career path, e.g. via self-directed career moves inside and outside organizations (see e.g. the seminal concept of the boundaryless career by Arthur & Rousseau, 1995). Meaning, on the other hand, can work as an internal compass and sometimes drives a person towards the fulfillment of a calling (see e.g. the new developments in research on sustainable and meaningful careers by De Vos & Van der Heijden, 2015; Valcour, 2015; or Hall & Chandler, 2005 on “The career as a calling”). One career concept what combines the two dimensions of agency and meaning is the protean career (see, e.g., Herrmann, Hirschi, & Baruch, 2015; Baruch, 2014; Gubler, Arnold, & Coombs, 2013; Hall, 2004). According to Hall (2004), who first introduced the concept, the protean career is managed and modified by the individual in a self-directed way and oriented toward personal values and meaning. This chapter will present an exploration of how agency and meaning offer psychological resources in dealing with the new demand of career self-management. The protean career will serve as a focal point for this endeavor yet will be accompanied by other resources that might be helpful in dealing with new career demands.

The set-up of the chapter is as follows: first, breaches in today’s career contracts will be examined. As part of this, the state of research on new career concepts in general (Baruch, Szücs, & Gunz, 2015; Gunz, Mayrhofer, & Tolbert, 2011) and on recent developments in career research with regard to sustainable careers (Van der Heijden & De Vos, 2015) will be introduced. In this first section, reasons for the rise of new career concepts will be discussed and light will be shed on the dark sides of new careers. In the second section, our current understanding of the protean career concept (e.g., Herrmann, Hirschi, & Baruch, 2015; Baruch, 2014; Gubler, Arnold, & Coombs, 2013, Grote & Hall, 2013) will be presented and deepened by a look at its potential to deal with new demands in working life. The focus herein will lie on the exploration of the potential of the protean career to serve as a bridge to overcome breaches in one’s career path. The third section deals with the ways individuals can create personal career paths, i.e. how they can build bridges over career breaches. Within this section, further resources will be presented such as career resilience (Lyons, Schweitzer, & Ng, 2015),

and the new concept of career crafting (Akkermans & Tims, 2016; Valcour, 2015). Finally, the role of career change for self-directed and values-oriented career management will be discussed.

The theoretical overview in this chapter will be deepened by qualitative interview data obtained from mid-career individuals. The interviews were conducted as part of a research project focusing on agency and meaning as resources for coping with the demands of career self-management. The interview topics were based on the framework of the protean career. The aim of interpreting and displaying the career narratives is to present possible ways of dealing with the new demands of career self-management. Hence, this subsection aims to offer insights into how mid-career professionals actually build bridges over career breaches.

The breach of the career contract

From organizational to individual responsibility

New careers differ vastly from what earlier careers and their definition of success looked like. Today, careers are increasingly characterized as personal paths with peaks and valleys. Individual career development is viewed as multifaceted, unstable, cyclical, and transitional over the life course (Brimrose & Hearne, 2012). The most notable difference between new and traditional careers can be found with regard to perceptions and definitions of career progress and success (Baruch & Vardi, 2015), especially as career success was often used as the main criteria to describe careers. According to Baruch and Vardi (2015) traditional career progress followed a structured path, yet this path often plateaued: not everyone could climb the corporate ladder to the top. Moreover, this traditional career model mainly applied to Western, white men, while women and minorities were often excluded or hit glass ceilings (as described by Morrison, 1992 in Baruch & Vardi, 2015).

Nowadays, we are witnessing an increase in self-directed career management where individuals take on responsibility for their career advancement. The development of careers today is increasingly becoming a task for the individual rather than an organizational task. The causes of this shift have been

the subject of intense debate among career scholars. One reason might be that organizations are providing fewer opportunities for upward mobility, often as a result of an increase in market pressures in a globalized economy (Greenhaus & Kossek, 2014 in Nagy, Spurk, & Hirschi, 2106). Another aspect which is identified as a driver of this development is a breach in the psychological contract. The psychological contract describes the relation between employees and organizations and influences individuals and organizational performance in many ways (Ng, Feldmann, & Butts, 2013). It shapes the set of beliefs individuals carry about their employer, its agents and their expectations of advancement within the organization (Rousseau, 2001).

Douglas T. Hall (1996) claims that the breach in the career contract between individuals and organizations is a main driver of the shift of career management from organizations to employees. According to Sullivan and Baruch (2009), employees realize that the former ideal of a career that moves upward in a linear manner towards success is no longer attainable. They also observed changes in employees' views on the employer-employee relation, with employees increasingly viewing the relation as a transactional rather than an emotional one: formerly existing bonds were no longer present; only the paycheck served as the central bond between employer and employee, with other bonds of loyalty largely absent. One reason for this development might be the decrease in organizational engagement with regard to helping individuals achieve long-term career goals by training and retaining them, as organizations increasingly practice short-term "hire and fire" policies. Hence, the breach of the career contract might lead to negative outcomes for both sides, as according to Ng, Feldmann and Butts (2013), as is linked to various negative individual and organizational outcomes (e.g., the loss of social resources, decrease in exchange among co-workers).

However, the breach in the psychological career contract and decreasing opportunities for upward career mobility might not be the only reasons why individuals have taken on the responsibility for their careers themselves. As Ibarra (2003) argues, today we can also observe an increase in individual reflection about work and life goals. In this vein, Sullivan and Baruch (2009) argue in their review of

career research that "*individuals are driven more by their own desires than by organizational career management practices*" (p. 1543). Moreover, today's employees tend to identify with their profession more than with their organization (Baruch & Vardi, 2015). This might also result in less stable relationships between organizations and employees and shorter retention spans within organizations (Akkermans, De Vos, & Van der Heijden, 2016).

Sargent and Domberger (2007) extend the view of the breach in the career contract from an organizational to a societal perspective, observing a change in younger generations' expectations of career outcomes. In this case, the perception of a breach in the psychological career contract has an influence even on individuals who have not yet experienced a breach from a past employer but rather perceive it in a more general way. According to Sargent and Domberger (2007), younger generations display a more pessimistic view with regard to their prospective material success in comparison with previous generations. Furthermore, Sargent and Domberger (2007) describe an effect of this pessimistic view on individual career proactivity, meaning that the road to individual agency might be blocked. This is of particular concern, as one prevalent assumption with regard to career management is that individuals are, or should be, increasingly proactive in their careers in response to wider economic, societal, and technological developments (see e.g., Gubler, Arnold, & Coombs, 2013). To cope with these changes, the individual needs to be a continuous learner and feel empowered as an agent of her/his own career (Hall, 2004; Sargent & Domberger, 2007).

Furthermore, the breach in the career contract demands the development of a strong sense of self that can serve as an internal compass and helps ensure that a person does not get lost on the winding road that characterizes today's working life. This leads to the question of how individuals can translate their desires into effective career management strategies. As Baruch and Vardi (2015) summarize in their critical examination of contemporary careers, the responsibility for steering a career has shifted in many ways from the organization to the individual employee. Hence, an exploration of the resources

individuals can tap into when faced with the increasing demands of developing their careers over time is required.

The bright and dark sides of new career concepts

New career concepts try to offer perspectives and tactics on how to deal with the changing work world around us while offering a view on careers that goes beyond a linear description of upward momentum. Careers seem to offer an inventory that provides individuals several directions within their career trajectories: for instance, sideways (e.g., re-training in a new occupation or expert careers without leadership ambitions) and downward movements (e.g., job loss but also self-solicited sabbaticals) are available options. Moreover, many new career concepts, as for example the concept of the protean career, seem to be better transferrable to other cultures and contexts (Shen et al., 2014). According to Hall (2004), the protean career is managed and modified by the individual in a self-directed way and oriented toward personal values and meaning.

However, new career concepts are also often one-sided as there is a tendency to neglect structural conditions. As Sullivan and Baruch (2009) highlight, “*careers do not occur in a vacuum*” (p. 1453) as individual careers are influenced by many contextual factors such as culture, economy, and the political environment. In their discussion of career studies and their lack of a thorough investigation of broader contexts, Gunz, Mayrhofer and Tolbert (2011) call for an understanding of careers as a social and political phenomenon. Moreover, it needs to be kept in mind that the opportunities provided by new careers go hand in hand with new demands for the individual, especially with regard to autonomy and flexibility demands.

According to Baruch, Szücs and Gunz (2014), although individuals might adapt to new career demands, they still look for security and stability. Nonetheless, new career concepts often come with a decrease in stability and heightened learning demands. Therefore, several researchers (e.g., Sullivan & Baruch, 2009; Volmer & Spurk, 2011; Gubler et al., 2014; Hall, 1996) have raised concerns that the management of one’s career path is not a welcome choice for all employees.

Furthermore, Baruch and Vardi (2015) highlight in their critical review of the dark sides of contemporary careers that the positive outcomes of new career concepts are frequently overestimated. According to their review, the outcomes of today's career systems are more negative than one would expect (Baruch & Vardi, 2015; Rodrigues & Guest, 2015; Sullivan & Baruch, 2009). Discrimination or abusive supervision may be such negative outcomes (Sullivan & Baruch, 2009). Moreover, Baruch and Vardi (2015) mention the risk of diminished efforts on the part of the employing organization to invest in employees, which eventually influences the long-term employability of individuals.

Another frequently-voiced critique of new careers refers to their over-emphasis on individual agency. Many new career concepts place a strong emphasis on individuals' freedom and growth as a core value (Hall, 2004; Chandler & Hall, 2005). Such agentic views on career development might be the result of neo-liberal ideology (Ganesh & Inkson 2010 cited in Gubler et al., 2013). Furthermore, Brimrose and Hearne (2012) assume that self-negotiation of one's own career path is part of the cost of living in a "risk society" (Beck, 1999).

However, many of the changes between traditional and new careers are for now mostly seen on the individual level. Sullivan and Baruch (2009) highlight the discrepancy between organizational practice and individual response. They summarize in their review on new careers that positive strategies to deal with changing work environments are still lacking in most organizations: as individuals seem to be taking on more responsibility for their personal career development, they are adapting to new career concepts. On the other hand, an adequate response from organizations (e.g., the re-organization of recruitment or career schemes) is absent.

Therefore, wider implications for career development at the onset of the 21st century need to be examined and applied at the individual, organizational and policy levels. In this vein, Van der Heijden and De Vos (2015) bring a fresh perspective to contemporary careers. They isolate four central elements in their definition of contemporary careers: time, social space, agency and meaning. These elements are key dimensions of the new research direction on sustainable careers. Sustainable careers

are defined as “*the sequence of an individual’s different career experiences, reflected over a variety of patterns of continuity over time, crossing spaces, and characterized by individual agency, here providing meaning to the individual*” (Van der Heijden & De Vos, 2016, p. 7).

Because of its multi-dimensionality and its theoretical as well as practical applicability, Van der Heijden and De Vos’ definition of sustainable careers shall set the framework for the rest of this chapter. Within this chapter, it is assumed that an understanding of careers warrants a holistic perspective on sustainable careers. With this holistic perspective in mind and acknowledging the resulting limitations, the focus of this chapter lies on the agency dimension. This focus was chosen as the agency dimension on the one hand offers practical insights for individuals on how to develop their individual career paths. On the other hand, the agency dimension provides meaning in working life (Van der Heijden & De Vos, 2016). Hence, it is assumed that the agency of constructing one’s personal career is itself a resource for building bridges over career paths with breaches.

This subchapter on the breach of the career contract and its implications for organizations, individuals and for a career concept perspective tried to acknowledge the contextual factors and possible strains new career demands place on the individual. Therefore, the focus of the following pages lies on the resources individuals can use to shape their personal work biographies. In the next section, the question of how to build bridges over career breaches will be deepened with help from current research on the protean career as a resource with regard to career resilience, career changes and the crafting of personal and sustainable career paths. The aim is to gain insights on individual, relational and contextual resources that help individuals build bridges over career breaches.

The bridges in career paths: the role of agency and meaning in overcoming career obstacles in different career concepts

The potential of the protean career as a resource for a sustainable career

The protean career is often discussed as a contemporary approach to careers and is of key interest with regard to new careers and the question on how individuals can build bridges over the various

breaches they will encounter during their working life. The protean career offers a view of careers that is neither linear nor oriented toward external goals, but rather defines career as a personal path with peaks and valleys (Hall, 1996). The name of the concept is derived from Greek mythology and refers to Proteus, the god who could change his shape at will.

The protean career was first introduced by Hall in 1976 and since then has been further developed by many scholars and practitioners. For instance, Herrmann, Hirschi, and Baruch (2015) claim that there is renewed interest in the potential of the protean career in reaction to changes in the work environment. According to Gubler, Arnold and Coombs (2013), who provided a literature review and refinement of the concept, the protean career concept is a theoretical framework with two subsidiary elements: one is the protean career orientation, the attitudinal aspect, and the other the protean career path, the behavioral outcome.

The central dimensions of the protean career are self-directedness in the management of one's career path and a value orientation toward personal meaning (Hall, 2004). Furthermore, there are two other components called "meta-skills" that describe "being protean": adaptability and identity. These meta-skills should enable the individual to navigate their career through changes while maintaining a clear sense of self. Moreover, these meta-skills are supposed to help individuals deal with the frequent changes that are encountered over various "career mini-cycles". Career mini-cycles occur in time spans of approximately five years and consist of stages of exploration, trial, establishment, mastery and disengagement.

Alongside structural changes in the working world, new questions about the purpose of work are being raised: well-being seems to be gaining greater value than wealth. This also resonates with Hall's definition of the protean career, in which he claims that the goal is subjective success (e.g., well-being) rather than objective career achievements (e.g., wealth). Hall proposes, "*the path to the top is being replaced by a path with a heart*" (Hall, 1996 cited in Gubler et al., 2014, p. 35; Hall, 2004; Sargent & Domberger, 2007). Thus, the protean career concept offers an individual perspective on careers and

success that can lead to a career with a calling (Hall & Chandler, 2005), which is beneficial for individuals and society.

Accordingly, the protean career is linked to the individual perspective yet tries to take the relational environment (from professional to private surroundings) into account. The relational approach is shown on the one hand in the notion of subjective success, where for instance the balance of work and family domains might serve as a career goal (DiRenzo, Greenhaus, & Weer, 2015). On the other hand, the concept takes into account the role of significant others in career planning activities (Grote & Hall, 2013). Hence, the protean career might be a strategy aimed at strengthening individual possibilities in finding and pursuing a fulfilling work life that entails and is enriched by relational needs. Furthermore, the protean career is described as a reaction to changing career pathways as it provides individuals with greater freedom and self determination (e.g., Volmer & Spurk, 2011). In support, there is evidence that a protean career orientation relates positively to various outcomes at the job level as well as with regard to career perspectives: it is positively related to job and career satisfaction (Baruch, 2014; De Vos & Soens, 2008), work engagement (De Vos & Segers, 2013), and career planning (Creed et al., 2011). Moreover, protean attitudes and behavior seem to help individuals deal with unemployment (McArdle et al. 2007).

Hence, it can be assumed that the protean career concept has potential to serve as a resource for individuals dealing with self-management of career development. In the following section, the protean career concept will be introduced as a possible bridge to overcome the above mentioned breaches individuals face in their working lives nowadays. Emphasis will be placed on the conceptual distinctiveness and measurement of the protean career concept.

The protean career and its conceptual distinctiveness and measurement

The protean career is widely acknowledged as a central and helpful concept with regard to new careers. Nevertheless, it is sometimes questioned whether it is a distinct construct from other career-related constructs and whether this distinctiveness can be encapsulated in concise measurements. The

first question often appears with regard to the construct of proactivity: Is being protean different from being proactive with regard to one's career? With regard to this, a recent investigation by Herrmann, Hirschi and Baruch (2015) showed that a protean career orientation is a predictor of proactive career behavior even after controlling for a general proactive disposition. Herrmann, Hirschi and Baruch (2015) also showed that a protean career orientation predicts career satisfaction and proactive career behaviors beyond the disposition to proactivity. Secondly, a protean career orientation can predict positive engagement in proactive career behaviors. Moreover, the protean career orientation can be considered a distinct motivational factor (Herrmann, Hirschi, & Baruch, 2015) that helps us to better understand the relations between personality dispositions and career outcomes. These very recent results are likewise of interest due to the fact that Herrmann, Hirschi and Baruch (2015) conducted their study among university students as well as employees.

Further questions concern differences and similarities to the boundaryless career concept. Many scholars argue that the protean career has overlaps with the boundaryless career concept (Arthur & Rousseau, 1995) in that they are both seen as new career concepts that differ from traditional careers (e.g., Gubler et al., 2013; Briscoe & Hall, 2006; Briscoe, Hall, & DeMuth, 2006). However, the main difference between the two concepts is that the boundaryless career concept is focused on mobility. This does not exclude individuals who are "protean" from being mobile as they might show physical mobility in their career paths. Yet protean individuals could just as well pursue their protean careers within the same organization (Briscoe & Hall, 2006).

The focus of the protean career is therefore on individual perceptions of self-directed career development, and to a lesser extent on the question of mobility. To allow for deeper understanding of the similarities and differences between these two career concepts, Briscoe and Hall (2006) examined the interplay between the protean career and the boundaryless career. They developed eight combined typologies of the protean career orientation and the concept of the boundaryless career by Arthur and Rousseau (1995). These combined typologies were based on the two main dimensions of the protean

career concept, self-directedness and values orientation, as well as on physical and psychological mobility as described in the boundaryless career (Briscoe & Hall, 2006). The results show, for example, that being values-oriented but not self-directed is a risk for individual career management and might result in a feeling of being “lost or trapped” in one’s career (Briscoe & Hall, 2006). In contrast, a “protean career architect” is both self-directed and values-oriented in her or his career pattern and exhibited both physical and psychological mobility.

Although the distinctiveness of the protean career concept seems to be valid, there is still a debate on whether its measurement is concise and efficient (Gubler et al., 2013). In the past, the most frequently applied measurement of the protean career was a two-dimensional 14-item scale developed by Briscoe, Hall and DeMuth (2006), which measured self-directedness and values orientation. However, this scale was frequently criticized (especially by Gubler et al., 2013) for its lack of theoretical underpinnings and often inconsistent use in research. In 2014, Baruch introduced a newly developed 7-item scale for the protean career. In contrast to Briscoe, Hall and DeMuth’s (2006) bi-dimensional approach, this new scale operationalizes the concept as uni-dimensional. This approach and the brevity of the scale bear several advantages, for instance, with regard to its practicality for survey research, which can be very time sensitive. Most importantly, however, Herrmann, Hirschi and Baruch (2015) validated the new scale by comparing it with the old one, finding satisfying results in terms of concurrent and discriminant validity for the new shorter scale. They also applied the scale in a cultural context different from the Anglo-American one, showing its cultural transferability.

These developments in research methods with regard to the protean career not only show the distinctiveness of the concept but also its actual relevance within career research and also in terms of practical implications. The agency implied in the protean career concept together with its view on subjective success serve as a theoretically strong foundation for recent observations in research on the crafting of sustainable careers.

Agency, the protean career and career resilience

In the current world of work, where demands are rising and the availability of stable jobs is declining, it is of utmost importance that individuals are equipped with strategies to build bridges over the various breaches they might face in their careers. One important aspect of overcoming obstacles involves strengthening individuals' employability. Therefore, it is assumed that programs designed to build career resilience and raise employability are needed in the modern career environment. In this subchapter, the protean career is assumed to be one such possible bridge. Hence, the chapter proceeds from the optimistic notion of the protean career concept as a transformational idea (Hall, 2004; Hall, 1996) that provides valuable resources for dealing with career development in changing times. In their comprehensive review on resilience in the modern career, Lyons, Schweitzer and Ng (2015) examined the protean career as a "protective factor" individuals can use to enhance their career resilience.

Career resilience was originally defined as "*a person's resistance to career disruption in a less than optimal environment*" (London, 1983, p. 621, quoted in Schweitzer et al., 2015). In their examination of the relation between the protean career and career resilience, Lyons, Schweitzer and Ng (2015) found career resilience to be an outcome of the protean career. Hence, protean career behavior and attitudes might serve as protective factors for the individual. On the other hand, their analysis also revealed differences with regard to the positive impact of the two dimensions of the protean career, self-directedness and values orientation, as each dimension worked differently as a protective factor. Lyons, Schweitzer and Ng (2015) report in their study that individuals with strong values are less resilient when faced with adversity in their careers (Lyons, Schweitzer & Ng, 2015). They assume that facing adversity can cause an individual to experience dissonance in terms of her or his values, which might in turn cause them to question the efficacy of their personal values as guiding principles. Their observations correspond with the results of Hall and Briscoe (2006), who defined typologies of individuals who demonstrate self-directedness and/ or a values orientation in their career path (e.g. a strong values orientation but low self-directedness would result in a feeling of being "lost or trapped" in one's career, Briscoe & Hall, 2006).

Although it was shown that being strong on values orientation does not help individuals overcome situations that oppose their belief systems, self-directed behavior – the other dimension of the protean career construct – was positively associated with career resilience. Lyons, Schweitzer and Ng (2015) attribute this result to the observation that individuals who take ownership of their careers are more likely to perceive various options at their disposal because this perception enhances their employment prospects. Furthermore, Bimrose and Hearne (2012) showed that developing and enacting targeted strategies renders a person more resilient.

Thus, the protean career seems useful in dealing with new demands as it helps increase individuals' resilience. However, the question remains as to how to empower individuals with a clearly defined value set to engage in career construction activities that help them find the meaning they long for in their career.

Crafting a meaningful career

Individual agency is supposed to be crucial to attaining career success. Yet as Akkermans and Tims (2016) note, it is not clear what kind of behavioral responses individuals need in order to shape their careers successfully. One possible resource for individuals to actively shape their careers according to their needs and values might be found in the job crafting literature. Recent developments in organizational studies research focus on the potential of job crafting as a means of altering jobs according to employees' preferences, sources of motivation and passions (Tims, Bakker, & Derks, 2012). Job crafting describes the shaping of daily work experiences with regard to (1) increasing job resources, (2) increasing challenging job demands, and (3) decreasing hindering job demands (Tims, Bakker, & Derks 2011). Furthermore, Berg and Wrzesniewski (2001) as well as Berg, Dutton and Wrzesniewski (2013) describe job crafting as an active process in which employees redefine and reimagine their job design in ways that are personally meaningful.

Akkermans and Tims (2016) define career crafting as a *“proactive behavior that individuals perform to self-manage their career, which is aimed at attaining optimal career-related outcomes”*

(Akkermans & Tims, 2016, p.12). In the presentation of their newly-developed Career Crafting Survey, Akkermans and Tims draw on research on job crafting by extending daily job crafting activities into the long process that eventually shapes our careers. The recent work of Akkermans and Tims is rooted in the framework of sustainable careers as introduced above and is also designed to allow for insights into the agency dimension of sustainable careers (cf., Valcour, 2015). According to Akkermans and Tims (2016), in order to study career crafting it is necessary to take not only job crafting experiences but also career competencies into account when attempting to describe “what” individuals can do to craft their careers. Career competencies are described as the sum of knowledge, skills and abilities which are necessary for career development (Akkermans *et al.*, 2013ab; 2015 cited in Akkermans & Tims, 2016). Yet they argue that despite allowing insight into a person’s knowledge and skills, career competencies cannot reveal whether the actual shaping of careers is taking place. Therefore, future career planning activities – which are assumed to be strongly influenced by earlier career experiences – are another important aspect of career crafting (Baruch & Vardi, 2015).

In the case of job crafting, job crafting activities allow for positive experiences in the workplace and increase meaning and purpose (Berg, Dutton and Wrzesniewski, 2013). It can be assumed that these positive experiences provide a resource of confidence, which can translate in further crafting activities – both job crafting and career crafting. While positive experiences might serve as resource, the opposite holds true for negative experiences. Baruch and Vardi (2015) argue that negative experiences in working life tend to have a far stronger impact on future career planning behavior as it is regularly described. This is of special concern with regard to future career planning activities and proactive career planning because proactive career planning has been shown to increase employability, career satisfaction and subjective career success (Forrier, Verbruggen, & De Cuyper, 2015; Lyons, Schweitzer, & Ng, 2015; Bimrose & Hearne, 2012). To increase workers’ ability to deal with the new demands of career self-management, it might be necessary to enhance their opportunities to actually craft their careers. Akkerman and Tims (2016) show that individuals who actively engage in job

crafting might eventually translate this ability from daily job activities to a pro-active career crafting behavior.

Having chosen agency and meaning as the focal point of my search for resources to help workers cope with the increasing demands of today's work world, I assume that career crafting is itself a resource into which individuals can tap to build a bridge over their career breaches, as described above. Therefore, career crafting seems to follow in the tradition of career concepts such as the protean career that offer broader views on career success than the often claimed yet seldom reached linear path to the top. Thus, they provide a better understanding of what to do in order to build a path with a heart (Hall, 2004).

Career agent of one's own life: employability through meaningful career narratives

Another possible resource for individuals to deal with the new demands of career self-management might be found in career narratives. As today's careers no longer follow the 20-40-20 pattern of 20 years of childhood and education, 40 years of – rather – stable employment, and another 20 years of retirement, it is necessary to adopt a new perspective on careers that is today often under- if not entirely un-taught in schools. With regard to this structural change, employability is of special concern. It is assumed that there is a danger of falling behind if one doesn't engage in up-skilling or re-skilling every five to ten years (Brown et al., 2012). Furthermore, it is argued that a lack of re-skilling activities might render an individual more vulnerable with regard to their personal career development perspective. In contrast, individuals who experience the transferability of their skills to new jobs enjoy advantages in terms of career change and advancement (Bimrose & Hearne, 2012). Accordingly, many researchers point out that career adjustment requires purposeful action and ownership over one's actions (see e.g., Lyons, Schweitzer & Ng, 2014; Ibarra, 2003).

A promising path towards ownership, transferability and action might be found in Ibarra and Barbulescu's (2010) investigation of major career transitions. Ibarra and Barbulescu (2010) examined the importance of career narratives in terms of allowing individuals to take on the role of active career

agents. They showed that career narratives where individuals describe themselves help them link former and new aspects of their professional role. Moreover, career narratives allow the individual to experiment with the actual demands and outcomes of a desired new profession. Therefore, it is assumed that career narratives serve as yet another bridge to overcome career breaches by allowing the individual to actively deal with unexpected changes.

Furthermore, it is assumed that career narratives can help individuals highlight their individual agency and provide meaning by allowing workers to use reflection and construction to shape their next career sequence. They envision and then enact the change they want to see. Moreover, Ibarra and Petriglieri (2010) examined identity play as a resource for dealing with transitions, as it allows people to experiment with possible future selves in times of transition. They showed that identity play provides opportunities for unexpected discoveries of skills, interests, and meaning, which are helpful in shaping the next sequence of a person's career path.

The aim of this section of the chapter was to present current literature and new ideas on opportunities for workers to shape their career paths by building bridges over career breaches. Furthermore, the subsection aimed to offer insights on possible strategies individuals might need to engage in and seek out career self-management. By providing an overview on current literature on the protean career concept, career resilience, career crafting and career narratives, I sought to allow for a broader understanding of recent discussions and practical implications.

Nevertheless, it needs to be noted that many other aspects of career research concepts could have been discussed in this overview; in particular, Savickas and Porfeli's (2012) concept of career adaptability deserves mention, as do career self-efficacy (Betz, 2007) and the theory of life design and the constructing of careers (Savickas, 2012). Yet in order to focus on concepts that illustrate different resources for individuals to shape their careers, this chapter does not claim to have provided a complete overview on the vast – and sometimes cluttered (Baruch, Szücs, & Gunz, 2014) – field of career concepts. Instead, the aim was to provide an idea of how the concepts of career resilience, the newly-

developed concept of career crafting and career narratives might serve individuals dealing with new demands in their working lives.

Therefore, this section aimed to provide greater understanding of how to foster individual strategies that allow for agency and meaning to deal with the increasing demand of career self-management. How individuals actually deal with new demands in working life will be the focus of the next section.

Three career narratives: peaks and valleys instead of “up or out”

This section presents aspects of career narratives of three Austrian professionals which were collected as part of a larger study on the development of the protean career path at the University of Vienna in 2015 and 2016. The sample was recruited from various working backgrounds (non-profit sector, for-profit sector). Most respondents were highly skilled, but low skilled workers were also interviewed. The aim of this subsection is to offer insight into actual protean career paths. According to the theoretical deliberations described above, the focus will lie on if and how being protean helped individuals deal with peaks and valleys in their working lives and shape their personal careers. Moreover, under-researched influences of chance events and reference groups on the development of a career path will be explored (see e.g., Gubler et al., 2013 for their recommendation that researchers explore the role of chance events and reference groups with regard to the protean career).

The three career narratives provide insight on how the interviewed individuals proved capable of transforming their professional lives over time. Each of the presented narratives shares the commonality of tremendous effort in developing a personal work identity (for the concept of work identity, see Ibarra, 2003). Moreover, in all of these stories people experienced breaches yet found ways to build paths that better suited their values and were more closely tied to subjective success than what their original professions and paths would have allowed. The three career narratives were chosen to illustrate the potential of agency and meaning as resources for dealing with demands for career management.

This section aims to allow for an in-depth understanding of questions of individual, relational and contextual resources that help individuals build bridges over career breaches. It starts with first experiences in the working world, gives insights on self-directed and values-oriented career moves, provides accounts of chance events and the role of reference groups, and ends with reflections on career success in particular and commonly-held beliefs about careers today in general. Thereby, the following parts of this chapter will put individuals who actively transformed their careers by changing jobs, moving to different countries, re-training for an entirely new profession or making the jump from employee to entrepreneur at center stage. Whenever a change occurs, it is of interest how the original career choice was ruled out and what drove individuals to pursue a new career path. Therefore, the career narratives presented here contain stories of career change but also focus on other aspects of how to deal with changes in the world of work.

At the beginning of each interview, participants were invited to talk about their working life in general. This approach (see also narrative interviews, Schütze, 1982), allows participants themselves to choose the starting point of their story and thus of their professional life. This approach often resulted in accounts of very early, first experiences of summer jobs. These stories often revealed emerging initial interests, as they allowed participants to find out what might suit them at a very young age. Moreover, participants who started their narrative about their professional lives in their early teenage years reported that have gained valuable insights about themselves and their future career paths.

First steps in the working world

This is how Anna, 35, today a journalist, described her first steps in the world of work:

I started working very young ... the first time at the age of 14 in the shop of a friend of my mothers ... which was actually absurd as at that age I wasn't even allowed to work yet ... but I wanted to be independent ... I always enjoyed working and I was really interested in finding out what work is like ... it wasn't my parents who told me to work ... I had this wish myself.

Anna was also very decided on her choice of studies and recalled that her parents supported her fully in her personal choice. After taking her A-levels, she remembers having known more about the sectors and occupations she didn't want to go into, but she also knew about her interest in journalism, which was fueled as she recalls by *“movies and TV shows from the 80s and 90s”*. She further reported:

Then I came to Vienna and I knew the only thing that really interests me is journalism and the only thing close to this in Austria was to study communications in Vienna ... and while queuing for my application I realized that I needed to inscribe for a second subject ... and so I decided on politics out of a great interest ... however, the studies were not what I expected ... no practical implications at all and 13 times a day we were told that if you want to become a journalist you don't belong here ... then I started to pick classes that were closer to journalism and there I encountered guest professors and lecturers from Germany who were really good and taught me for instance about war journalism.

It was also about this time when she told herself:

I need to stop working as a waitress, I need to gain relevant work experience and so I looked up the university's job portal where I found an announcement ...for an assessment center for a junior enterprise ...I went there and I really enjoyed the atmosphere ...everything was self-organized ...I had never appreciated those strict hierarchies where the youngsters are also treated as the dumber onesat this enterprise everyone could make up their own rules ...this is where I learned for the first time to structure my work and to look at an organization as a whole ...and to understand more the interplay of an entire team.

After her studies, she could not break into the field of journalism, so she accepted an offer from a consulting firm she knew from a cooperation during her time at the junior enterprise.

It didn't interest me at all but I found my team leader very competent and I had the feeling from the beginning this is someone I can learn a lot from ... but he left after a year ... later I joined another team ... where we would organize our trainings ... I really enjoyed that time because it was again a thing

of team spirit ... but then in an assignment abroad I started to think again ... I actually still want to become a journalist ... this has always been my dearest wish from the bottom of my heart.

Hence, a job that provided Anna stability yet lacked the meaning she sought in her working life did not fulfill her needs and left her uncertain about her current career path.

Other participants in the qualitative study focused the starting point of their story on their decision-making process in terms of education. Here, the role of family members was often more dominant than participants would have wished. For example, Sarah, 35, advertising professional, described this process of choosing her field of studies:

To me communication was always interesting, my father was a media artist ... creative work was always interesting. My father said, “don’t study design and don’t aspire to become a designer” ... and well ... at the age of 18 no one is certain what to do, right? ... and then everybody was happy when I announced that I am going to study business ... once there I specialized in marketing and advertising thinking that through this side entrance I will get to the creative side ... and somehow this made all of us happy.

Or Stefan, 45, entrepreneur today, originally trained as an electro-mechanic:¹

I come from the countryside and I did exactly what my colleagues from primary school did ... I decided to do

vocational training instead of going to a college-prep high school ... I did actually look a bit around for a creative job but as many of my family members were electricians ... my father, my uncle, my cousin ... it was

¹ Note on the contextual factor of the Austrian educational system: a dual system exists in Austria in which students can complete an apprenticeship for jobs e.g. in sales or skilled trades that combines work in the private sector and public schooling once a week.

presented to me that this would be a good choice as it provides a stable income ... to nourish a family and so on ... so I pursued their path ... but I never developed a real passion for it.

As these accounts show, neither Sarah nor Stefan were self-directed in their first choice of profession. Their ability to be agentic and proceed self-directedly through further steps in their career paths developed through chance events. As the following parts of their narratives will show, Stefan's path was very influenced by chance events. In contrast, Sarah's account of a disappointment in her first job in the communications industry that accelerated her first major self-directed career move provides an example of agency as way to overcome career obstacles:

My first boss was the first leader I actually got to know ... and this was a woman who as completely overwhelmed by her job ... she drank alcohol during the work day ... and I was just overwhelmed, too. I was really done with everything ... and I started to think of ways to get out of it. Where am I going to learn something? Because nobody here is showing me anything ... and so off I went to America.

Self-directed and values-oriented career moves triggered by chance events

Stefan's entrance into the world of work was, as was shown earlier, influenced by family and peer expectations. Yet he soon discovered that he was not living according to his own choice. Due to an unpredicted and unplanned chance event – an accident outside of work – he was allowed to re-train for another profession, thus escaping his dreaded job:

During my second year it became clear to me that I don't want to continue with this job ...but this is how things go there ... what you start you'll finish but straight after I decided to finish my apprenticeship I injured my knee severely and this gave me the opportunity to train for another profession. This time it was to become an office clerk ... during that re-training I was also actively

involved in voluntary work with children and teenagers ... I also started to consider looking for a job in social work with children and youth.

However, this was not the only time Stefan's professional life was crucially influenced by an unplanned event which he eventually translated into self-directed action. Stefan's second chance event allowed for a big step up the hierarchical ladder and provided lots of "freedom and growth" (core values of the protean career according to Hall, 2004), and hence for values-oriented and self-directed career advancement. Furthermore, as Brown et al. (2012) also showed in their qualitative exploration of mid-career career changers, this sample also exhibited positive attitudes towards learning through challenging work:

After I started to work at a child care organization the managing director became very ill and had to go on leave ... I was only 21 at that time and was asked since there was no one else around ... if I could imagine taking over the responsibility of managing director ... well this is how I became the managing director of this organization for ten years ... it was a very dynamic time. I was young and brought many other young people into the organization. And when it came to training methods I could always swap views with friends of mine who worked in the private sector and shared a lot of knowledge and methods with me. For instance, I could define the standards for qualifications for heads of departments, and we designed a whole new management program for human resource development ... This organization grew from let's say 13, 14 to over 250 people during those ten years.

However, this considerable success in terms of objective measures of responsibility did not satisfy Stefan over the long run. His desire for a change arose again:

After about 8, 9 years I became a bit bored ...and I started to consider quitting entirely and getting into organization consulting ...the development of organizations was my hobby so to say ...but at the time ...actually by accident again it became public that the managing director of the national

organization in Vienna was about to leave and he asked me if I would take over his job as I was anyways prone to change”

In line with Sargent and Domberger’s (2007) qualitative exploration on the development of a protean career orientation among undergraduates, a violation of values often jumpstarts reflection and subsequently action to change something in one’s career. However, this notion only holds true for individuals who are driven by agency and meaning (e.g. Volmer & Spurk, 2011; Briscoe & Hall 2006 showed that being values-oriented but not self-directed can even inhibit career proactivity and the shaping of a protean career path). An example of a contrast between the beliefs one holds towards one’s own profession and towards one’s employer, and therefore an example of values violation, was described by Sarah:

It was very sobering to realize that at the core of the business it is not about the client or the thing itself ...but that it is about some ...interests of a shareholder network somewhere in North America which I have nothing to do with ... I am no one special, it is not about my development, it is only about shares and personal enrichment. This was so sobering ... so sobering to see that the work of world is not about creating something together but only about self- interest and other dimensions which have actually nothing to do with the main business.

Anna also had to undergo a rupture in her career path, which eventually turned out to be the chance event she needed to get back on track in terms of pursuing her original calling. At that time, she had already been working for four years in business consulting but felt the urge to get her foot into journalism. However, she received no response to her applications in the media world. At the same time, she was rewarded by her consulting firm employer as one of its best performing team members:

There you get grades like in school ... it really is ridiculous ... but my degree was excellent ... with a big ceremony on stage and all.

At the same time, there were some intense discussions about a 2-month holiday that had already been agreed upon and that her supervisor had signed off on. She nevertheless went on the trip and when she came back to work, she learned that she had been fired, which eventually also keyed up her agency to find the meaningful job she had always dreamed of:

It was the best thing that could have happened ... I wouldn't have had the guts to resign from my job without having a new assignment yet working so many hours at that consulting firm didn't give me enough time to conduct a job search and write applications for work as a journalist.

Stefan, despite working in the social sector, also reported experiences that contradicted his values and his drive to structurally change the organization for what he believed to be for the better. Hence, he experienced a decrease in meaning and was hindered from performing as an active agent in the organization. In retrospect, he reasoned:

Now as a self-employed person I realize what disturbed me most in all these organizations ... although you can actually have an impact and much more of it as for example in a position in administration it felt to me that 90% of energy is being wasted because someone obstructs the process ... I mean those destructive forces.

The presented accounts give an insight into how self-directed career moves are linked to challenges with regard to both agency and meaning, especially when participants are confronted with organizational practices that are in contradiction to their values.

Reference groups and their role in and effects on career change

Grote and Hall (2013) highlighted the importance of reference groups when examining career paths. In a 1996 handbook edited by Hall, “The career is dead – long live the career”, the common theme that emerges is a relational perspective on careers. However, this perspective is often paid insufficient attention in career research today (Gubler et al., 2013). Therefore, these interviews place an emphasis on reference groups.

For Stefan, the most profound change with regard to his career change was with regard to his family and the need to adopt a new way of dealing with new roles and financial insecurities, which were formerly unknown in his family.

Relatives played a very small role, a very small number were surprised but didn't know what was going on. What was much more difficult was the inner-family context. Responsibilities shifted, I transferred my place of work to my home, the house had to be renovated ... it was a really active time ...while my wife started to work more as our children were at that time old enough. Altogether it is very exhausting for a partner, this change from a situation of security to a state of insecurity. This was difficult for all of us and for me, too. It is something you have to get used to ... these insecurities.

Anna experienced the end of a long-term relationship during her transition from consultant to journalist. As it became clearer that her endeavor to enter journalism would possibly meaning she would have to stay longer in Berlin, her five-year relationship with her partner deteriorated and eventually ended. This experience, she recalled, showed her for the first time the ways in which one's partner and eventually one's entire relationship are affected by career decisions:

I was working as an intern in Berlin at that time ... and my partner at that time originally had accepted the fact that I would spend a few months there...it left an imprint on me to realize that a partner can't always accept all the decisions that you make for yourself.

These accounts show that although at the beginning of one's working life relatives might play an important role, the impact of reference groups seems to lessen with greater age and experience. This was mostly shown in that during the narrative interviews, as proposed by Schütze (1982), the stimuli questions used to elicit career narratives did not explicitly ask about the role of reference groups. Nevertheless, individuals were able to choose what and whom to include in their narratives, i.e. whether they placed an emphasis on family and friends or not. In the interviews, the role of friends and spouses as active enablers or hinderers of career decisions was rarely mentioned at all initially. Therefore, the interviewer asked additional questions about the role of family, other relatives, partners and friends. Interviewees' answers showed that family did play a role, yet a lesser one than expected by the interviewer and suggested in the literature (Grote & Hall, 2012). Moreover, the accounts show that friends were of very little or no relevance to the narratives. Nevertheless, it needs to be taken into account that the individuals portrayed here displayed a very high protean career orientation, and it might be assumed that such individuals have a tendency not to let others interfere with their career plans.

Meaning over money? Exploring the perception of subjective success

An issue of special concern for working biographies in general and in studies of the protean career concept in particular is the question of success. As Gubler et al. (2013) note, career success from the point of view of subjective success (the term psychological success is also used synonymously) is the most frequently studied aspect of the concept. In its original form, the idea of subjective success is contrasted to objective career measures such as money or fame and re-focuses the idea of success on well-being and meaning. According to Hall (1996), breaches in career contracts have led to the re-evaluation of careers and career success. A recent cross-cultural study in 11 countries by Shen et al. (2014) supports this notion of a shift toward self-determined definitions of career success. Furthermore, it was shown that an increasingly large population of individuals define their success in terms of

psychological achievements (Ng & Feldman, 2014). Within the framework of the protean career, Hall proposes, *“the path to the top is being replaced by a path with a heart”* (Hall, 1996 in Gubler et al., 2013, p. 35). Thus, the protean career can also be regarded as a resource in that it offers a different perspective for careers and allows workers to be guided by an inner compass rather than external incentives. Additionally, Hall and Chandler, 2005, claim that this individual perspective on careers and success can lead to a “career as a calling”, which is beneficial to individual and society.

Here is Stefan’s account of his subjective goals and values:

I wanted to have an impact in society, I wanted to change things via politics ... money really never played a role in that. But I have to add that I always had enough ... well I started working at age 15, so the salary I earned as an electro-mechanic while school students had to get along with their pocket money. I even felt privileged and later as a managing director I didn’t earn so badly. So well, all my professional life at that time was about idealism and the drive to change something but more and more the perspective of maybe turning a tiny wheel or having an impact in policy making didn’t sit well with me. I felt more inclined to do something ... so my idea of a new way of travelling, an eco-sustainable way of travelling. This is a product I can fully relate to my values.

Anna’s account is in the vein of the discussed balance between objective and subjective career measures. Hall (1996) highlights that subjective career goals do not stand in opposition to organizational goals but rather enable both psychological as well as entrepreneurial success. Volmer and Spurk (2011), building on Judge (1995), further support this notion by combining both subjective and objective success as criteria for overall success. In her reflection on success, Anna openly spoke about the dilemma of doing a job she loves and believes to be relevant to society but where she is unhappy with her current employer. She further spoke about the financial problems she would face were she to change employers now, which left her to date undecided on where to go next:

Journalism is the most exciting job out there. To engage with politically and societally relevant proceedings ... I actually find journalism pretty selfish because you can spend your whole time working on things that you are interested in as a private person, too.

A new perspective arose for Anna when an independent, investigative news platform she had already worked with offered her a job. However, she said that this job was very poorly paid and she now looks for opportunities to unite her path with a heart with her needs in terms of financial security and in terms of balancing her life domains (see e.g., DiRenzo, Greenhaus, & Weer, 2015):

Honestly we want to live differently. I really would love to go on a sabbatical for about three to six months where I could read tons or start an educational program. I would really like to get off the hamster's wheel but where I was offered another job they really earn nothing. My life style is really not exaggerated but I don't want to live so close to the poverty line. I don't think I could do it again but maybe I could find some things I could work on in addition to the job there.

Sarah didn't actually articulate whether she would forsake financial benefits for a "path with a heart" (Hall & Chandler, 2005). However, she expanded her reflections to a general observation on the quest for meaning in working life. She came up with another observation on whether the search for meaning in working life is a relevant question at all, which she whole-heartedly defended:

And when I then hear about so called luxury problems in terms of searching for meaning in our jobs ...well ... isn't it the aspiration as a cognitive being to search for meaning in one's life. If not I really wonder what's it all about.

This section on career narratives ends with an example of the reflection that might be triggered in interviews on personal work experiences (Brown et al, 2012) . The following remark by Sarah challenges some commonly-held beliefs in the arena of self-help and commercial career counseling.

Get out of your comfort zone, experience new things, change yourself, be flexible ... the big credo of flexibility... this is the new ethics of work but during my MBA program I thought “being flexible and doing something new and getting out of your comfort zone is actually not what is good for people ... I would rather say it is extremely difficult to establish a comfort zone in the first place, which is what I believe to be the real success. Because we have to question where this whole flexibility is going to take us? ... Instability leads to uncertainty ... and this doesn’t make you happy in the long run.

This remark resonates with the position of many scholars highlighting the need to question the overly positive view of new demands (Baruch & Vardi, 2015; Baruch, Szücs, & Gunz, 2014). Furthermore, it is in line with Richard Sennett’s (1998) classic work on the “corrosion of character” and the dangers of excessive flexibility demands. Hence, the exploration of the protean career as a resource in dealing with new demands presented here tries to strengthen our understanding of the potential of self-directed and values-oriented career moves yet tries to stay balanced in order to not overly promote the case for change. Nevertheless, the perspective of the protean career as a potential bridge over career breaches is strengthened by the respondents’ accounts.

Conclusion

This chapter aimed to provide an overview of recent trends in the field of career studies and present fresh perspectives for dealing with new demands in the world of work. The main focus was on potential resources in dealing with change. Agency and meaning as described in various new career theories and especially in the influential protean career concept were chosen as a focus to examine how individuals can manage their career in a self-directed and values-oriented way. Moreover, the newly introduced concept of sustainable careers was chosen as a broader framework for understanding the complexity of contemporary careers (Van der Heijden & De Vos, 2015; Akkermans, Van der Heijden

& De Vos, 2016; Akkermans & Tims, 2016). Additionally, career crafting (Akkermans & Tims, 2016), career resilience (Lyons & Schweitzer, 2015; Bimrose & Hearne, 2012) and career narratives (Ibarra & Barbulescu, 2010; Ibarra & Petriglieri, 2010; Ibarra, 2003;) as stabilizing forces in an unstable world of work were presented as bridges that individuals can build over the breaches in their career path.

My goal was to offer insights on how individuals can overcome the various breaches they might encounter during their working lives and discuss what can be done to build bridges that eventually lead to personal career paths. This theoretical approach was deepened by the presentation of three career narratives. The narratives were presented with regard to dimensions of the framework of the protean career and also embedded in the focus on agency and meaning as potential resources for a subjectively successful career. To examine the potential of agency and meaning as resources in dealing with new demands in the world of work, actual career patterns and perceptions of self-determined and values-oriented career moves were investigated. Fostering or hindering conditions and the view of subjective success were also part of the three career narratives. The interview data allowed for an understanding of the experiences and choices individuals report when faced with changes in their working lives. Moreover, the presented narratives show how dimensions of the protean career concept served as a resource for the interviewees in coping with these demands. For instance, self-directed career moves seemed to support the active shaping of careers and to increase perceived employability. With regard to meaning, it was shown that clear values helped the interviewees overcome work situations where their individual needs were not met. Furthermore, chance events were mostly described as welcome catalyzers for self-initiated career changes. Additionally, reference groups were described as decreasing in importance with age in terms of career choices, yet they often provided new career opportunities.

Implications include several external resources that should be further developed in the future in order to reflect the changing nature of careers, as well as the further development of internal resources to allow individuals to increase their employability and subjective career success through agency and

meaning. The following fields seem to be fruitful for further investigations as well as for HR practitioners' development of new management styles:

External resources include:

- Educators, as described e.g. by Briscoe (2015 in De Vos & Van der Heijden, 2015). According to Briscoe, educators could and should play an effective role in helping students assess who they are. Furthermore, educators should help them develop reflection skills and use feedback tools to initiate enhanced reflection that is not limited to looking backwards at the end of a process but involves reflecting throughout the learning cycle.
- Organizations should develop career development schemes that better reflect non-linear moves (e.g. allowing for more specialized careers rather than having experts either pushed into the role of team leader or plateau in a hierarchical position where they need to follow the instructions of lesser specialized team supervisors).
- Colleagues can take on the role of peer coaches (see e.g., Parker et al., 2015) and help detect weaknesses and strengths that might foster further career moves.
- Close bonds to friends and family members can also serve as a sounding board and provide feedback, especially with regard to one's talent and the search for purpose and meaning in working life beyond traditional career paths as they might know about one's personal desires.
- Weak ties, as described in the classic study by Granovetter (1973), will possibly become even more important for gaining knowledge about possible further job opportunities but moreover by allowing a person to gain insight into different sectors or work roles that might seem interesting.
- Supportive societal circumstances, such as the Austrian model of the "Bildungskarenz", a state-sponsored sabbatical where employees can take up to 12 months of paid leave to up- or re-skill (e.g. by obtaining degrees; starting a study program). The international implementation of this

model and its extension to the self-employed would help increase employability over the entire course of today's and tomorrow's longer careers.

Internal resources include:

- Transformational career attitudes (Briscoe & Hall, 2006) which are high in a values orientation and high in self-directedness have been shown to be dynamic and especially helpful in times of unemployment (Waters, 2014 in Briscoe, 2015)
- Trying on possible future selves (Ibarra & Petrigleri, 2010) through experimentation can allow for a better understanding of one's existing talents, gaps in knowledge or personal strengths. The exploration of identity through work and play combines experience with preparation for transitions.

Limitations of the career accounts presented here include the focus on mid-career professionals and the sample criteria of change or rupture. However, as career changes are on the rise for various reasons, I believe that it is of equal scientific and practical relevance to further explore potential resources in dealing with new demands and further investigate the potentially positive (and/or negative) effects of individual career crafting.

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4.2. Career shocks and change

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From Shock to Shift –

A Qualitative Analysis of Accounts in Mid-Career about Changes in the Career Path

Abstract

Career shocks are the norm, not the exception. Yet, much of research and counselling on career-development holds unrealistic assumptions of a makeable career. Little is understood about the role of shocks on the career path and how the interplay of individual reactions to shocks shapes careers. The purpose of this study is to provide understanding of responses to different attributes of career shocks and career shocks as antecedents to career and job change. A qualitative approach was chosen and data were obtained from 25 semi-structured interviews with a sample of mid-career individuals who had experienced shocks in their work lives. The analysis was twofold and aimed at unearthing of individual responses to shocks and the question of the role of shocks on changes in the career path. Firstly, the analysis of career shocks revealed a pattern of distinct agentic responses in relation to shocks of different attributes. Secondly, from the analysis of shock attributes and corresponding responses over time career changer profiles emerged which differ in regard to career change behavior and magnitude of changes in the career (e.g., major career changes into another field). A process model which depicts how post-shock careers are shaped distinctively in relation to different shock attributes and corresponding responses is presented. This study underlines the importance of understanding the unplannable in career development and shows a variety of options for individuals to develop their careers despite shocks. Limitation stems from the investigation of a sample limited to mid-career individuals. The findings provide a new conceptual lens to theorize and conduct research on career

shocks and career changes and facilitate the development of coping strategies for career shocks. The originality lies in the investigation of the momentum of career shocks on career paths with detail to different attributes of career shocks and how they impact the career path.

Introduction

Contemporary careers are increasingly complex. Unpredictable events stemming from changes both inside and outside organizations are likely to impact a career path (Barley et al., 2017). Yet, until today, most research on career development has focused on individual preferences and perceptions of career development, with relatively little attention paid to external factors (Akkermans & Kubasch, 2017; Kostal & Wiernik, 2017). Recently, many scholars (Akkermans et al., 2018; Gunz et al., 2011) have challenged this view of individual agency and criticized the ideal of a “makeable career” highlighting the impact of shocks on career development instead (e.g., Hirschi & Valero, 2017). According to Akkermans et al. (2018), the research on the interplay between agency and context is in decline since the rise of the new career paradigm. Therefore, the integration of perspectives such as the systems-theory framework on careers (McMahon & Patton, 2019) and its contribution on the understanding of the role of context or chaos theory of careers (Pryor & Bright, 2011) serve as a missing link in research on career development. Hence, this study follows the call to investigate the interplay “between career shocks and agency-related factors thereby building a bridge between both perspectives” (Akkermans et al., 2018: p.8).

Following the critique of the “makeable career” and the demand for research on contextual factors, Akkermans et al. (2018) proposed a categorization of career shocks regarding five different attributes (frequency, predictability/controllability, valence, duration, and source). Shocks are defined as being caused by external factors and outside of individual control. Moreover, shocks can be perceived as positive (e.g., promotions) or negative (e.g., health problems). Additionally, responses to shocks may vary greatly according to individual resources to address challenges. Negative career shocks in particular require career resilience and adaptability (Johnston, 2018). However, research on

new careers (Kuron et al., 2016), career self-efficacy beliefs (Betz, 2007; Kim & Lee, 2018), and the role of chance events on career decision-making (Bright et al. 2005) has found that attribution styles can buffer the negative aspects of experiencing shocks. Nevertheless, shocks can also be perceived as “a blessing in disguise” (Zikic & Klehe, 2006) and may account for positive outcomes (Feng et al., 2020; Holtom et al., 2013).

Within their conceptualization of different career shock attributes, Akkermans et al. (2018) refer to research by Seibert et al. (2016) in regard to potential of shocks to shocks trigger deliberate reflection and action pertaining to the career path. According to Seibert et al. (2016), career shocks require an individual to rebalance career goals and consequently develop new paths to reach a goal. For instance, a shock could trigger an individual to act upon a desire for change in the professional life. Earlier studies on the relationship of shocks and turnover (e.g., Holtom et al., 2005; Morrell et al., 2004) showed how shocks lead individuals to consider current plans, and that shocks often precede changes.

Although changes in careers have long been the norm rather than the exception (Ahn et al., 2017; Barley et al., 2017; Kim et al., 2019), insight is needed on the interplay of external and internal factors leading to these shifts. In regard to changes of jobs or even major career changes to a different field, a shock might serve as a launchpad and prompt action in career paths that would otherwise be characterized by inertia (Morrell et al., 2004; Lee & Mitchell, 1994). Hence, this study aims to unearth the interplay of career shocks and changes on the career path.

This paper also responds to calls for more research on the impact of career shocks that integrates the time-sensitive perspective. For instance, Rummel et al. (2020) claim, it can be difficult to isolate shocks from their impact. Moreover, several authors claim that not all shocks precede changes nor lead to immediate action (Akkermans et al., 2018; Holtom et al., 2012; Rummel et al., 2020). Yet, due to the prevailing practice of studying careers at a single point, mostly at career entry levels, a better understanding of consequences of shocks over time is missing (Akkermans et al., 2020; Akkermans et

al., 2018). However, research in mid-career offers underexplored venues for understanding the challenges and changes of career development (e.g., Van der Horst et al. 2019, Ibarra, 2004). Moreover, investigation of mid-career individuals, allows to study career development over time.

Theory

Career shocks

Career shocks are generally understood as unexpected events that occur outside the control of the individual. They further argue that the majority of the working population experience career shocks. Differentiation of shocks is provided through the newly developed categorization by Akkermans et al. (2018), who defined five attributes of career shocks: frequency, predictability/controllability, valence, duration, and source.

Frequency, as one distinct quality of a career shock, differentiates how often individuals experience shocks. Some shocks (e.g., being sexually harassed at work) occur more frequently than others (e.g., an environmental disaster). A question of special interest regarding frequency is whether it leads to habituation that inhibits reflection and action, for instance, due to change fatigue (e.g., Zeitz et al., 2009), or, to the contrary, whether frequent experiences of shock might even enable resilience (Bimrose & Hearne, 2012; Lyons et al., 2015). For instance, Akkermans et al. (2018) refer to life-satisfaction studies which have shown that recurring challenges in the domain of work (e.g., repeated phases of unemployment) tend to lead to heightened sensibility, whereas problems in private life (e.g., repeated divorce) stimulate habituation. Given these ambiguous results, it is important to contribute to the understanding of how the experience of multiple shocks impacts a career path over a longer period.

As another set of distinct shock attributes, Akkermans et al. (2018) differentiate *predictability* and *controllability*. Shocks have varying degrees of likelihood and controllability. Moreover, even planned events might cause unexpected consequences. For instance, even a planned pregnancy might nevertheless cause a career shock. On the other hand, employees can be informed about a layoff in advance, hence the shock is predictable to some extent, yet the job loss is not controllable. One strategy

to address the predictability/controllability of shocks can be found in the attribution style of a growth-oriented mindset (Seibert et al., 2016). This growth orientation allows an individual to overcome restricting ideas about personal abilities and grow into a new role. To illustrate, a recent exploration of career adaptability of refugees showed how decidedly ignoring what is out of one's control while taking responsibility for what is within one's influence helps to regain control (Wehrle et al., 2019). This mindset could be also helpful in coping with career shocks.

Valence of career shocks refers to the evaluation of the shock's outcome. According to Akkermans et al. (2018), shocks that are positively valenced are assumed to have a positive impact on someone's career, with negative shocks leading to negative outcomes. A study by Blokker et al. (2019) in young employees showed the effect of positive career shocks on efforts to attain career success and employability, with negative career shocks having inverse effects. In contrast, Rummel et al. (2019), cite studies that found positive outcomes from negative shocks. The present study proposes one avenue to understand these contradicting results by disentangling the subjective components of the description of the shock experience and consequences, particularly with regard to the values individuals express. As Seibert et al. (2013) showed, shocks trigger deliberate reflection and action pertaining to the career path that could possibly lead to a general shift in individual career paths. Hence, this study assumes that reflection might also provoke questions of individual values, especially in cases of values violation (e.g., Hall, 2004). This relates also to the literature on broken psychological contracts (e.g., Clinton & Guest, 2014; Rousseau, 2014), and subjective success (Dries, 2011; Mayrhofer et al., 2016; Shockley et al., 2016). Moreover, Akkermans et al. (2018) suggest referring to Beach's (1990) image theory to include the idea of values and ideals when researching the impact of shocks on career development. Therefore, this study extends the view on the attribute of valence from a description of negative or positive shocks as described by Akkermans et al. (2018) to expressions of personal values and beliefs.

Another attribute of shocks is the *duration*. Duration can be experienced relative to the length of the shock event itself and the proximal or distal consequences. Furthermore, it is assumed that the

impact of the duration of a shock differs with the length of the shock, in that a longer shock might show more severe consequences (Akkermans et al., 2018). Additionally, Lee et al. (1999) showed that a longer period of discomfort with the current position or while a person thinks about other career perspectives could interact with an unpredicted job offer and elicit change. It can be assumed that the stifling of career advancement over an extended period might kindle career change intentions and, especially. These intentions might be linked to self-concept and, breaches with the trajectory image, which according to image theory, describes the image a person aspires to achieve (Akkermans et al., 2018). Therefore, this study specifies the duration of shock experiences also in relation to barriers to individual career aspirations over time.

Finally, Akkermans et al. (2018) describe *source* as an attribute for shocks. They characterize sources as interpersonal, family-related, organizational, environmental, or geopolitical. Sources of shocks can also be assumed to concern questions of structural barriers, inequality, and injustice. To illustrate, research on the psychology of working theory (Blustein et al, 2019; Duffy et al., 2016) highlights that ethnic background and social class pose structural barriers and risks to career development. What makes the source of a shock also relevant for further career development is that hence source can be the most challenging attribute of a shock to overcome. Hence, it can be assumed that certain demographic characteristics increase the vulnerability to experience shocks. However, the source of shock holds potential to buffer against negative effects as it might trigger reflection and beneficial attribution styles (Seibert et al., 2013). For instance, if an individual has reasons to assume that the shock of job loss was not caused by personal failure, but has an external source, for instance mass layoffs, the source of the shock can act as a buffer (Bright et al., 2009). According to systems theory framework of career development (McMahon & Patton, 2019) the interaction between sources and individual action is shaped through an ongoing process of meaning making and individual agency.

This process involves the knowledge about self and the environment. Hence, it can be assumed that, structural barriers need to be acknowledged, as well as the potential of meaning making in analysis of questions related to the source of shocks.

Career change

Across the globe, career changes have become a normality (Akkermans & Kubasch, 2017; Barley et al., 2017; Rice, 2014). For instance, data from the U.S. labor market show that people experience an average of twelve job changes throughout their careers (U.S. Bureau of Labor Statistics, 2015, cited in Ahn et al., 2017). Accordingly, career change literature captures the internal challenges and strategies to deal with career changes. Career changes entail monetary and psychological costs (e.g., Holtom et al., 2005), movement capital (Peeters et al., 2020), a large degree of adaptation (Brown et al., 2012; Johnston, 2018), and reinvention of work identity (Ibarra & Petriglieri, 2010).

In regard to the definition of what constitutes a career change and what differentiates it from a job change, Carless and Arnup (2011) distinguish between small and major career changes. Hence, their definition of career change is reduced to changes of the professional field which are largely unrelated to former experiences. This study extends this definition by building on the conceptualization by Ibarra (2004) who offers a definition of career change that entails any role change. Therefore, changes to a different field, a change of employer, or a change toward self-employment are included. Additionally, Lee et al. (1999) suggest that it is worthwhile to include non-work options (e.g., graduate school) or changes to entrepreneurship, as there are similarities in the search and evaluation process the individual has to perform. All types of changes on the career path are relevant for this analysis, as each type can be preceded by career shocks. Moreover, a broader definition of career change enables acknowledgement of the varying costs associated with the different types of changes (e.g., Holtom et al., 2005). Hence within this study, career change is considered on a spectrum from small adjustments within one's career path (e.g., changes in employer or position within the same field) to major changes of fields (e.g., retail to finance) and sector (e.g., changes from the public to the private sector).

Moreover, changes of role (e.g., self-employment) are also covered. Small changes are referred to in this study as job change. Other changes are referred to as major changes.

To conclude, the purpose of this study is to clarify how career shocks ignite changes in the career and how the interplay of external shock experiences with internal career change responses impact the career path over a longer period. Given the relative neglect of research on shocks in the last decades and the novelty of the systemization of shocks by Akkermans et al. (2018), this study provides original insights on the impact of different characteristics of shocks on the career path.

The research questions are:

RQ1: How do individuals respond to career shocks of different attributes?

RQ2: How does the impact of the interplay of different attributes of career shocks and responses shape the career path over time?

Method

Research design

This study applied a qualitative, explorative research method. A sample of 28 individuals, who had experienced shocks in their work biography, was recruited via purposeful sampling (Suri, 2011). For the purpose to select individuals with careers that had already developed over a certain period of time, mid-career individuals aged between 35 and 45 years were recruited. A semi-structured interview enabled the understanding of how career shocks ignite career change and impact the career path over a longer course of time. Inductive and deductive and analytical steps were combined for analysis. The aim was to unearth the role of career shocks in the phenomenon of changes in the career path (job changes, career changes).

In the following section the Gioia methodology for qualitative research (Geham et al., 2019; Gioia et al., 2012,) is outlined with special attention to the combination of data-driven and theory-driven analysis. Moreover, a step-by-step description of the coding process and illustration of the

collaboration between co-authors is provided. Hence, each step of the analysis which led from the first-order analysis via second-order analysis to the development of the process model is explained.

Recruitment and participants

A sample of 28 individuals, who met the criteria of shocks in their work biography was recruited via purposeful sampling (Suri, 2011). Snowball sampling (Suri, 2011) allowed to obtain a diverse sample (education, ethnicity, gender, professions, sector, growing up in urban or rural areas). To specify, the central criteria for selection was the experience of ruptures in the career path. It needs to be highlighted, that the term rupture was used for recruitment instead of shock, in order not to superimpose the terminology by Akkermans et al. (2018) on participants. The second central sampling criterium was age, with the aim to explore careers that already developed over a certain period of time. Examination at mid-career allows greater insight into evolving career paths as the entry phase has passed, yet career exit is still years ahead. At the time of the data collection, participants had a minimum of ten years of full-time work experience and were still at least twenty years from the official retirement age. To summarize, recruiting followed the criteria for ruptures in the work life and the mid-career stage of the work life, hence demographical criteria were not applied. However, the sample also allows for investigation of structural barriers to career development (e.g., in regard to gender, ethnicity or social class) as the sample was heterogenous.

First, an initial set of persons from the authors' network was contacted via email. Subsequently, snowball sampling (Suri, 2011) allowed reaching out to a diverse network where individuals with different backgrounds (education, ethnicity, gender, professions, sector, growing up in urban or rural areas) could be met. For recruitment, participation in a career biographic interview study of career paths with ruptures was called for. In regard to sample size, an original set of 28 interviews were conducted. The sample size follows recommendation by Guest et al. (2006), who suggest that the number of interviews follows agreement of the authors that further interviews would not generate new insights. However, three interviews had to be excluded for further analysis as these participants had

answered the call for ruptures in the work life, but throughout the interviews it became visible that their careers were untouched by shocks and had remained unchanged.

The average age of participants at the time of the interview was 38.9 years. All participants were working (either employed or self-employed). Out of the final sample of 25 respondents, 13 were male, 12 female. All but one of the participants lived in a large European city; however, not all were originally from this city but also came from other countries or rural backgrounds. All but one participant were first language German speakers. Table 1 shows participant characteristics, the shocks they experienced, and related career changes. Within the table the spectrum of career changes applied by this studied is marked to distinguish whether the career changes were to another field, to another employer or to another role (including education or self-employment).

Insert table 1.

Instrument and procedure

A semi-structured interview guideline was designed to take account of the interplay of external shocks and individual responses. The purpose was to capture behaviors and reflections (Bimrose & Hearne, 2012), with a set of seven open-ended question related to the career path. The interview started with a general invitation to talk about how participant's professional life had evolved. This was followed by open questions that invited a detailed articulation of the steps and shocks that led to their current career. To illustrate, the following three questions were used to prompt accounts of the shocks and changes that were experienced: How did your career evolve over time? What types of career ruptures have you experienced in your career path? What barriers or drivers did you experience on your way? This approach was chosen to gather data to unearth how the shocks triggered thought processes and deliberative action (Akkermans et al., 2018; Seibert et al., 2013). The interview questions are in the appendix.

The interview guideline was piloted with one interview. No major revisions were necessary as the questions seemed easy to understand by the participant and adequate for the purpose. To maintain

consistency, the first author conducted all interviews. All interviews were conducted in German and lasted between 45 and 90 minutes; the difference in length resulted largely from the number of reported career shocks and the impact the shocks had on their careers, hence the numbers of reported shocks and changes. All interviews were audio-recorded and transcribed. Quotes have been translated from German to English by the first author, who is proficient in English, with back translation by the co-authors, who are also proficient in English. The anonymous and voluntary nature of the interviews was explained to the participants, who gave written informed consent prior to the interviews. Anonymity was ensured by labeling of the participants with a capitalized R and consecutive numbers (R1, R2, etc.). Participants received no compensation.

Data analysis

To analyze the qualitative data, we combined the inductive methodology of Gioia et al. (2012) with a deductive approach based on the five career-shock attributes of Akkermans et al. (2018). The methodology by Gioia et al. (2012) stems from grounded theory, and focuses on informant-centric terms yet also foresees the integration of theory-driven codes in the development of a process model. The computer software ATLAS 8.2.3 supported the analysis.

In line with Gioia et al. (2012), first-order analysis focused on informant-centric, original terms and codes of participants. In order to make the participant's voices heard, the analysis was primarily built on informant-centric terms and emerging data were allowed to shape the methodological process. Moreover, participants were seen as "knowledgeable agents" (Gioia et al., 2017); original verbatim is provided throughout the findings section.

The subsequent second-order researcher-centric analysis permitted to develop concepts informed by theory. The five characteristics of shocks as defined by Akkermans et al. (2018) served in this part of the analytical procedure as theory-based code which was combined with the informant-centric terms. Through stepwise comparing and contrasting of the individual career narratives and the

detailed accounts of shocks and changes, a relation of specific responses to shock attributes as described by Akkermans et al. (2018) became apparent.

Research question one aimed at identifying responses to career shocks. In the first step, interviews were screened for accounts of shocks and changes independently. Open coding resulted in a very rough list of first-order codes for responses to shocks of different attributes (e.g., again new as expression for frequent experiences of shocks). The first-order codes were then elevated by theory to second-order themes. Second-order themes allow comprehension of the deeper structure of the concept, for instance in regard to frequent experiences of shocks, accounts of habituation and resilience were found. The next step aimed at identifying aggregated dimensions (Gioia et al., 2012). These aggregated dimensions stem from emerging concepts that explain the phenomenon of responses related to career shocks. To illustrate, “change muscle” was identified as the aggregate dimension of the response to the career shock attribute frequency.

In order to answer research question two, which aimed at the understanding of the impact of the interplay of career shocks and responses on the career path over time, a new round of individual analysis of each career narrative was performed. Therefore, the transcripts were reviewed to explore how within each career narrative the responses to career shocks of different attributes might have shaped distinct profiles. From this analysis, career changer profiles emerged from what was found to be a dominant interplay of career shock and change responses. Analogous to the steps in the analysis for research question one, the career changer profiles were also distilled from first-order code, to second-order themes and lastly resulted in aggregated dimensions. It is important to note that career changer profiles become visible only from the perspective of a longer course of time. Similarly, profiles can only be identified by contrasting and comparing the impact of the interplay of shocks and responses throughout analysis of more than one instance of shock and change within one career narrative and with other accounts. To illustrate, career paths that were predominantly shaped by the interplay of shocks of the attribute of valence and the corresponding response showed in the profile of a maverick

and resulted more often in major career change. In contrast, paths that were mainly impacted by the interplay of shocks attributed to duration and their corresponding responses.

Findings

Participants of this study reported career shocks, listed in alphabetical order, in regard to accidents, bankruptcy of the employer, changes in the management, conflict with the organizational culture, conflicts with the management, conflicts with the team, earthquake, the economic recession after the financial crisis, financial troubles of the employing company, fraud in the employing company, gender- and ethnicity-related injustice, goal conflicts, job loss, job offer, unplanned pregnancy, and severe injury. This list of shock resulted from the first round of coding and were subsequently categorized according to career-shock attribute by Akkermans et al. (2018). In the following the findings are grouped career shocks of different attributes and the responses which they ignited; the second part is dedicated to career changer profiles which emerged from the analysis of post-shock careers and how they were shaped by the interplay of career shocks and responses.

In the following the findings are grouped by career-shock attribute according to the systematization by Akkermans et al. (2018) with the first section dedicated to career shock responses; and the second part to career changer profiles which emerged from the interplay of career shocks and responses over time. A graphical summary of the findings to research questions 1 and 2 is presented in figure 1. Notably, figure 1 shows the process from shock to shift via aggregated responses to career shocks and the post shock career which showed in distinct career changer profiles related to each shock attribute.

Insert FIG 1

Fig. 1 Process model from shock to shift. Note: The figure presents aggregated dimensions of responses and career changer profiles

Response to frequency: change muscle

Frequency, as one distinct quality of a career shock, differentiates how often individuals experience shocks. Some shocks (e.g., being sexually harassed at work) occur more frequently than others (e.g., an environmental disaster). A question of special interest regarding frequency is whether it leads to habituation that inhibits reflection and action, for instance, due to change fatigue (e.g., Zeitz et al., 2009), or, to the contrary, whether frequent experiences of shock might even enable resilience (Bimrose & Hearne, 2012; Lyons et al., 2015). For instance, Akkermans et al. (2018) refer to life-satisfaction studies which have shown that recurring challenges in the domain of work (e.g., repeated phases of unemployment) tend to lead to heightened sensibility, whereas problems in private life (e.g., repeated divorce) lead to habituation. Given these ambiguous results, it is important to contribute to the understanding of how the experience of multiple shocks impacts a career path over a longer period.

In this study, accounts of frequent ruptures and surprising turns were used by the participants to illustrate how change and shock became routine on their ever-changing career paths. Habituation to multiple experiences of shocks was reported, which appeared to serve as a facilitator of change and stimulated increase in resilience. Participants in this study seemed to have gained strength that helped them re-shape their careers according to their needs and interests. The experience of frequent shocks was found to be associated with habituation that led to the development of a *change muscle*. However, frequent experience of shocks rarely triggered immediate career change it rather appeared to serve as a mindset for coping with shocks. This is highlighted by these two participants, who voiced how they perceived change and shock as routine on an ever-changing career path.

My previous professional life was actually characterized by constant learning and constant change of sector – this was incredibly important. (R18)

Many, many lessons on how things change. And I think that has shaped me anyway, ... tomorrow it can always be different. You get up and get fired and that's it. (R6)

Response to predictability/controllability: growth mindset

One strategy to address the predictability/controllability of shocks can be found in a growth-oriented mindset (Seibert et al., 2016), which allows an individual to overcome restricting ideas about personal abilities and to grow into a new role. This was mirrored in several interviews, as individuals who predominantly reported shocks with the attributes of predictability and controllability responded with the development of a *growth mindset*. Positive attribution styles and the ability to adapt readily were apparent from the interviews. This is illustrated in the statement of a career changer, who had an accident early in his career as a mechanic which resulted in a retraining that brought him into the educational sector, where soon after entering he was offered a leadership position first on the local and then on the national level:

Then it also happened by accident that the country manager was leaving and asked me if I wanted to do it in his place and I was ready to change anyway. (R4)

Another respondent, who actually had just finished his medical studies got an unexpected job offer in an entirely different sector, which he accepted nevertheless:

And then they asked if I wanted to join this new radio station. (R8)

For participants in this study, the experience of unpredictable and uncontrollable shocks did not cause resignation but stimulated action. What also showed in the data, many of the reported accounts of unpredictable events were in relation to surprise job offers. It can be assumed that the growth mindset applied, did equip participants with the required emotional regulation and resilience to accept these offers.

Response to valence: wake-up call

How shocks were valenced showed a strong link with a more general question of values and turned out to have a strong impact on participants' careers. What was initially a shock served for some participants as a *wake-up call* that encouraged the pursuit of new endeavors. Experiences of values violation altered the career paths substantially—most participants did not continue in the field where

they had encountered this type of career shocks, as shown in the case of a former nurse who changed to become a hair dresser:

The medical system in [city] is anyway ... you get exploited and you get no supervision ...I could not bear it any longer ...I told myself ok I have to get out of there somehow. (R1)

After the change to become a hair dresser, he also experienced a job loss, which led him to remain a hair dresser, but leave his role as employee:

I'm not angry, that gave me a good boost. It's a huge step to becoming self-employed. (R1)

Another respondent reported the shock of a job loss as a trigger for a major career change from business consulting to journalism:

I already had started to think that I still want to be a journalist and that that was always my heart's desire and then happened one of the dirtiest stories of my professional life. We got an award and were on the podium and blah and [were told that] we are so excellent and 4 months later I was fired. (R2)

Additionally, a distancing and inner movement away from organizational goals was found.

We as a team chose to rather let the project go down, than to surrender to these company norms. (R24)

Response to duration: identity work

According to Akkermans et al. (2018), the attribute of duration, needs to be regarded from two perspectives: the duration of the shock itself (e.g., the recovery from an injury usually takes longer than the termination of an employment contract) and the consequences of a shock. Respondents who narrated shocks in regard to duration, highlighted demands to develop their vocational identity; they either fought to maintain their identity and career aspirations despite shocks or had to undergo an intense phase of emotional but often also financially taxing change of role. An illustration of both facets of duration is shown in the case of a craftswoman who had suffered the shock of an injury and felt very insecure about her professional future for a sustained period:

That was very hard, because I did not know how well I'll ever be able to stand in an upright position again in my life and if I can ever continue such a job. That was the really big question and of course my employer was wondering, too. (R14).

Adding to the shock experience of the injury, at the time of the incident she was self-employed and lacked the security of being able to maintain her position in one of the rare outlets where she could perform her craft on a professional level. Eventually she endured in order to maintain her dream profession.

I waited for years to become employed. (R14)

This transition process also prompted reflection on identity questions that showed in a procedure alike to shedding skin and renewal from one self-image to a new self:

Those were the phases in my change. The first phase was the total rejection of everything that had to do with my original job. (R15)

Response to career source related shocks: setting sail

Shocks of the type of source were experienced especially strong as a structural force on the individual career path. Within the interviews the source of a shock was shown in accounts of discrimination. Moreover, the shocks were clearly framed as barriers. What surfaced prominently within this study were reports of sexism and racism.

I had the feeling he just wants to break me per se because I'm a woman. That I don't have a say in here, as it is just a very male dominated company. I think 60, 70% only men and the women actually all held assistant positions, only. (R2)

You did not see from the CV that I was brown-skinned. At a job interview where I wanted to be ... I was out already when I walked through the door. As a consequence, I did not get the job. (R6)

Within the interviews, the source of a shock was mentioned in several accounts of discrimination related to ethnicity or gender but also in relation to shocks in the private realm. In both matters, most clearly voiced responses were linked to *setting sail*, that is, physical or psychological mobility. Shocks that were caused not by structural injustices but were related, for instance, to broad economic turbulence affecting the entire industry, often triggered a departure from what was described as a harmful environment. Responses were narrated either as adaption behavior or through perspective taking. What followed these shocks was often described as a move to new lands, either physically or mentally. Most responses were thus linked to leaving either the place or job.

We got to know each other and she got pregnant relatively soon afterwards and it was never a question for her to move to Austria. She said you can come to Indonesia, if you want to see your kids. (R9)

This respondent left the job environment to pursue a career change to graduate education:

I saw the ship sinking ... I have to get out of there and then I saw the managing director escorted out by bodyguards and then some shareholders from Canada came with their trolleys and kicked people out one by one; and then I said well ... I am going to take an educational leave. (R5)

Career changer profiles

The findings to research question 2 describe how the interplay of certain shock attributes and corresponding responses shaped the career path. The analysis showed different attributes of shocks ignite distinct responses which eventually shape career paths toward distinct career changer profiles. It became apparent, that the impact of the interplay of shocks and responses, differed according to the shock attribute. Albeit individuals might have experienced the interplay of various shock attributes and change responses, the analysis revealed profiles that were predominantly shaped from the interplay of shocks and corresponding responses of a certain attribute over time. The identified career changer profiles provide insight into post-shock career self-management strategies.

Career-changer profile frequency: transformer

Career-changers of this profile show a tendency to embrace change and accept struggle. Individuals took on an attitude of a transformer of their work life, in which they often changed careers or jobs by seeking changes and accepting the struggles they met on their career paths quite voluntarily. Within the data for this study, the interplay of frequent career shocks and responses, resulted mainly in major career changes which involved changes of sector, field, occupational status (e.g., from employee to entrepreneur) and also retraining.

Examples include the story of a mechanic who became an academically educated manager in the educational sector and then an entrepreneur in tourism. His career path included many changes that were consequences of shocks: first, as a mechanic he had an accident that led to retraining as a sales

clerk. From this position, he got an unexpected job offer to work in the educational sector, where he soon got promoted to manager. After several successful years in this position, he received another unexpected job offer as the country manager for the organization he was already working with, which involved moving to another city. However, after a few years in this leading position, he felt burdened by the routine, which triggered starting postgraduate education. After completing the master's degree, he did not return to his former position, but start change his career path toward entrepreneurship in tourism.

Career-changer profile predictability/controllability: editor

Participants with experiences of either unpredictable or uncontrollable situations showed a tendency to accept the situation and to develop a rather pragmatic outlook on their work lives. Correspondingly, the changes described were smaller adjustments, yet within the same field and professional role. The term “editors” was developed for career changers whose stories were mainly affected by shocks of the typology predictability/controllability. Although their career path was not as originally intended, and thus they had to depart from the ideal of being the director of their personal career story, they used the material they were presented with and found ways to make it their story anyway. Hence, such career changers are like a movie editor who neither writes the script nor directs the shooting of the film, but through cutting and rearranging is able to make a consistent story out of the otherwise possibly disorderly material without rewriting it. Career changers of this type adjusted to a situation and changed the circumstances of their careers, instead of leaving to an entirely new field. However, the responses to career shocks were not about resignation but about active shaping of the situation to maintain their current careers.

Within this study, several stories were told of taking up graduate education and speculative applications for new jobs as preventive measures to buffer future shocks. An example of this profile is described in the case of a marketing professional who urgently wanted to change from the private to the public sector. However, due to lack of experience she did not secure a position for an extended

period. The change occurred only after the positive shock of an unpredictable job offer, where she was introduced to the marketing department of a large social enterprise.

Career-changer profile valence: maverick

Shocks related to valence, especially if values violation was experienced, were shown in profiles involving major changes from one sector to another. Accounts also demonstrated aspects of struggles with hierarchies and supervisors, especially once participants started to act upon their professional ideals (e.g., regarding questions of justice in the workplace). Moreover, former ideas of a possible future-self (such as having studied journalism as a means to fight inequality but actually working as a business consultant) were reignited. A clear tendency towards strengthening career self-efficacy beliefs was also visible among career-changers of this profile.

Examples include the story of a business consultant who was a journalist by training and eventually became an investigative journalist after leaving the well-paid consulting world behind. Another account was found of an assistant in a law firm became a management director in the field of arts. Both profiles showed, that valence related shocks triggered not only to leave their former professional networks but also recalibrated their personal goals and ideas of success towards more subjective goals than money or status.

Career-changer profile duration: sustainer

Akkermans et al. (2018) argue, that shocks that are longer in duration have more severe consequences. The duration of a career shock was used by several participants as descriptor for either their persistence to stay within the current position or the perseverance to obtain for a new professional role. Career narratives that held accounts of duration, were termed *sustainers*. However, as the term suggest, duration in itself did not ignite career changes. Duration was rather described as an experience in the background of the transition process which was necessary to grow into the new role.

The length of the shock triggered in several participants an attitude of endurance, especially if the shock was related to a career they actually wanted to maintain. An example is shown in the shock

of a lay off one career changer experienced after he left his job as a scientist over the age of 35 to start anew in an advertising company. However, he had problems adapting to the speed of his new work environment, which first led to a dismissal which was eventually retracted. Eventually, he could prove his talent, which led to some of the highest awards possible in the field.

Career changer profile source: adjuster

The interplay of the duration of the shocks and individual responses, had similar to duration, little distinctive aspects that led to career change. Therefore, more job changes than career change surfaced from analysis of career paths that were predominantly shaped by shocks of the attribute of source and their corresponding responses. It seems that sources prompted adaptation processes, which involved action and reflection. Thus, this profile was termed *adjuster*, which was signified by the adaptation of the personal view of the job, rather than a change of the career itself.

For instance, family needs that required moving to another country did not necessarily prompt questioning of the career but did require searching for a new field of work because the former job was not available in the new country. It was also shown that shocks caused by organizational troubles (e.g., mass layoffs) that could therefore be attributed entirely to external factors hindered deeper reflection. Although setting sail was the reaction and showed in physical and psychological mobility, this profile was characterized by a pragmatic stance.

Discussion

Main findings

The purpose of this study was to clarify how career shocks impact career paths and ignite career changes. Earlier research has shown that shocks throughout the work life are common and that they impact long-term career outcomes (Akkermans et al., 2018; Bright et al., 2009). Hence, it follows claims to provide a complementary view on career development (Akkermans et al., 2018), that bridges context, herein examined from the perspective of shocks, and agency, which was found in individual responses and career changer profiles. To summarize, the findings show individual responses to

different attributes of career shocks and career changer profiles that emerged from the interplay of career shocks and responses over time.

The analysis unearthed the impact of shocks on career paths and found different responses to shocks according to how the shock was described. Thus, although several respondents reported a similar shock experience (e.g., job loss) this study revealed that certain shock attributes led to specific responses which eventually shaped the entire career path distinctly. To illustrate, if the description of job loss bore indicators of the shock attribute of e.g., valence in contrast to e.g., the shock attribute predictability, a different impact on the career path became visible. Furthermore, the post-shock career revealed a certain pattern overtime in that the interplay between specific shock attributes and responses resulted in distinct changer profiles. Individuals with different changer profiles seemed displayed distinct attitudes and behaviors in regard to their career development.

Another observation of this study challenges the view that not all shocks precede changes as within the data all shocks ignited change responses which sheds a new light on the questions on the voluntary nature of career changes. Moreover, career change literature does not emphasize the scope of career change but rather distinguishes whether the turnover is voluntary or involuntary (e.g., Feng et al., 2020). Therefore, the tendency to distinguish career changes from the perspective of voluntary or involuntary nature of career changes (e.g., Feng et al., 2020) might thus be expanded on the perspective of the process from pre- to post-shock career as derived from our findings.

Within this study it became visible that shocks of different attributes also showed in different magnitudes of career changes. One possible explanation lies in the different attributes of shocks, of which some triggered more reflection than others. Shocks which triggered more reflection than others were shown to lead to major career changes. This became most visibly in cases of shocks related to valence where career changes to different fields were stimulated. Once individuals sensed their values had been violated, they were triggered to think of their ideas and ideals of work, eventually steering them towards a “path with a heart” (Hall et al., 2018). The predictability/ controllability and frequency

of shocks also appeared to ignite major career changes. Predictability/controllability of shocks and major career changes, might be linked to the growth-oriented mindset (Seibert et al., 2016) applied by individuals who experienced shocks of that attribute. Therefore, growth-orientation might serve as strategy to overcome restricting ideas about personal abilities and enables growing into a new role. Instead, shocks related to duration and source ignited change action, yet stimulated less reflection. Correspondingly, shocks with these characteristics seemed to lead to smaller adjustments (e.g., change of employer) in the career path. Finally, source-related shocks were often described as structural barriers (e.g., in relation to gender, ethnicity) and led to smaller changes in the career. However, questions of the source of the shock might also be closely related to available resources to deal with challenges. As career changes involve emotional as well as financial costs (Peeters et al., 2020, Holtom et al., 2005), the available resources to transform a shock into a desired career change, might vary greatly.

Limitations, theoretical and practical implications

This study demonstrates that, whereas individuals cannot control the occurrence of shocks, they can respond to shocks in an agentic manner. A limitation to these findings is the sample which came from a specific age group and life stage, as the investigation of career paths over time was central for this study. Moreover, it was purposefully sampled in regard to ruptures in the work life. Yet, a limitation in regard to the sample concerns the question of the educational level and how this might translate on the abilities to deal with shocks. The sampling was based on the criteria for ruptures in the work life and the mid-career stage of the work life, hence did not sample for demographical information. However, the educational level was high with most of the participants which also showed relation to the experience of career shocks. To illustrate, albeit some of the participants started their career paths as low-skilled workers, eventually they went through re-training or upgraded their education oftentimes as a response to a career shock. Therefore, we believe, that for the purpose of this study the sample do not limit the findings. Moreover, as Akkermans et al. (2018) argue that career

shocks are experienced by the majority of the working population. Nevertheless, future research could try to establish understanding of the relation of educational background with responses to career shocks.

Another, limitation lies in the focus of this study on dominant patterns of the interplay between shock attributes and response. Thus, the interaction with other shock characteristics on the career path cannot be excluded. For instance, in the analysis it became visible that shocks that were described in regard to their duration and resulted in persistence to could also be linked to questions of valence. Thus, it is possible that persistence was fueled by a value-orientation that helped to maintain a “path with a heart” (Hall et al., 2018, Hall, 2004). Moreover, as source related shocks were often mentioned in relation to structural barriers, they might interact strongly with other shock attributes, e.g. valence in regard to questions of justice.

With regard to theoretical implications, the process model from shock to shift aims to serve as a building block to develop propositions about the role of shocks on careers from responses to post-shock careers characterized by career changer profiles. Future research could build on this process model to examine outcomes of the interplay of shock and responses. Hence, propositions about the role of shocks and possible outcomes could be derived and empirically tested. Three central topics have been identified as potential avenues for future research on the interplay of shocks and changes on the career path: subjective success, employability and transferability of skills.

Regarding subjective success, the analysis showed the individual definition of success might be altered by shocks, especially in cases where career shocks of valence were reported. As shown in earlier research on broken psychological contracts (e.g., Clinton & Guest, 2014 on the role of psychological contract breaches and turnover), the notion of success shifted towards a more subjective definition. The literature on the protean career (e.g., Hall et al., 2018; Gubler et al., 2014) and on calling as a driver of career change (Ahn et al., 2017) could serve as basis for further investigation the relationship of career shocks and subjective success. Moreover, Akkermans et al., (2018) argue that

the reaction to a shock can be a central determinant for future career success. Furthermore, newly developed scales for measuring subjective success (e.g., Mayrhofer et al., 2016; Shockley et al., 2016) could be applied in at least two directions: to examine whether career shocks alter the individual definition of success and if career changes can lead to subjective success.

In regard to employability, it will be necessary to link understanding of the development and outcomes of post-shock careers to the perspective of vulnerable populations. One central concern related to agency on career paths is, that it may only be valid for those who are already highly employable (Forrier et al., 2018). The findings showed that ethnic background (e.g., Owens et al., 2019) and social class (Blustein et al., 2019; Duffy et al., 2016) pose structural barriers and risks to career development. Further research could build on the findings to develop questionnaires on career changing behavior that allow for better combination with demographic data. For researchers who wish to engage in further qualitative investigations, it could be useful to modify a future interview process by requesting that participants provide a copy of their curriculum vitae prior to the interview (Bimrose & Hearne, 2012) and to integrate demographic data (e.g., age, income, marital status) in the analysis. Accordingly, research on career guidance in multicultural societies (Sultana, 2017), should be consulted for the development of interview guidelines and questionnaires.

A third avenue for future research, concerns the question of transferability of skills and their role in coping with shocks and changes in the career. Transferability seemed to be central to the respondents as they reported how they used skills acquired in one sector in their new job or even field. It can be assumed that through a process of sense-making in narrative practice (Ibarra & Barbulescu, 2010) can serve as a stabilizing force in the transition process from one job or field to another. Moreover, there might be a link between employability, transferability and frequency of shocks. From the findings, it appears that the experience of multiple career cycles is fueled by transferable skills that allow adequate responses to frequent career shocks. In addition, the level of education and the degree of specialization might also be linked to questions of transferability of skills.

From the practical perspective, this study provides insights and illustrations for the development of career counseling interventions findings for the development of career counseling interventions with a focus on challenges arising in post-shock careers. The findings underline that individuals need assistance in developing coping strategies to deal with frequent career shocks (Seibert et al., 2016; Seibert et al., 2013). It is essential to aim for the assistance in the development of coping strategies.

For instance, interventions could focus on the various costs of turnover such as movement capital (Peeters et al., 2020), adaptation (Brown et al., 2012; Johnston, 2018), and reinvention of work identity (Ibarra & Petriglieri, 2010) and integrate the findings from this study to illustrate the process from shock to shift. To illustrate, with the use of the findings from this study illustrations and stimuli could be developed, that elucidate the nature of shocks and the options for agentic responses. Moreover, counselling needs to acknowledge challenges for vulnerable populations (e.g., Blustein et al., 2019).

Other applications could aim at increasing individual resources to respond to shocks from the backdrop of the responses and career changer profiles identified in this study. To illustrate, with the use of the findings from this study illustrations and stimuli could be developed, that elucidate the nature of shocks and the options for agentic responses. Moreover, by training of attribution styles (Seibert et al., 2013) of a growth-oriented mindset as shown in this study as response to frequent shocks) and in training of the “change muscle”, resources and of career self-efficacy beliefs (Betz, 2007; Kim & Lee, 2018), could be increased.

Additionally, contextualization of shocks could also help in destigmatizing the experience of shocks which could eventually also help in coping. Earlier research has shown that if the individual has reasons to assume that the source of the shock is not individual failure, it acts as a buffer against the effects of shocks (e.g. Bright et. al. 2009). This is of particular relevance in counselling with respect to structural barriers to career development (Blustein et al., 2019; Duffy et al., 2018). Counseling that helps in contextualization of the shock while aiming at increasing the availability of agentic behavior

could combine illustrations of post-shock careers derived from the career changer profiles described in this study with facts from general labor market statistics.

In regard of the potential of shocks to trigger reflection, career counselling could encourage reflection as a career competency (Akkermans & Tims, 2016). According to research on reframing (e.g., Nowlan, 2015), individual reflection can lead to a process of sense-making by deriving personally relevant meaning from experiences. Hence, it seems valuable to further strengthen the understanding of the role of individual career narratives and the role of reflection in the process from shock to shift. Moreover, reflection on shocks could also lead to personal reevaluation of success. Therefore, future career interventions could integrate the findings in regard to shocks related to valence with research on subjective careers success as overcoming- For instance, scales on subjective success by Shockley et al., 2016; Mayrhofer et al., 2016), could provide multidimensional measures of success.

Lastly, in addition to the target group of career counselors, practical implications of this study entail the organizational and societal perspective. Thus, organizations or governmental institutions resources should likewise aim to integrate understanding of the prevalence of shocks and individual responses. Practitioners in human resource development plans as well as policy makers should aim for providing resources to address challenges in the development of post-shock careers for instance by better availability for re-training.

As a final remark on practical implications, as this paper was completed during the COVID-19 pandemic, it aims to provide a perspective on how to deal with career shocks related to this global crisis that has severely affected the labor market, as outlined in recent publications by Akkermans et al. (2020) and Hite and McDonald (2020). Although the data for this study were collected before the pandemic, this paper might contribute perspectives on the interplay of shocks and individual options to overcome rough patches on career paths, whether they are caused by the coronavirus or other external factors. It can be assumed that much of the findings have the potential (e.g., working with the responses and profiles to identify individual coping strategies) to be applied in career counseling.

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Table 1

Table 1

Respondents Characteristics

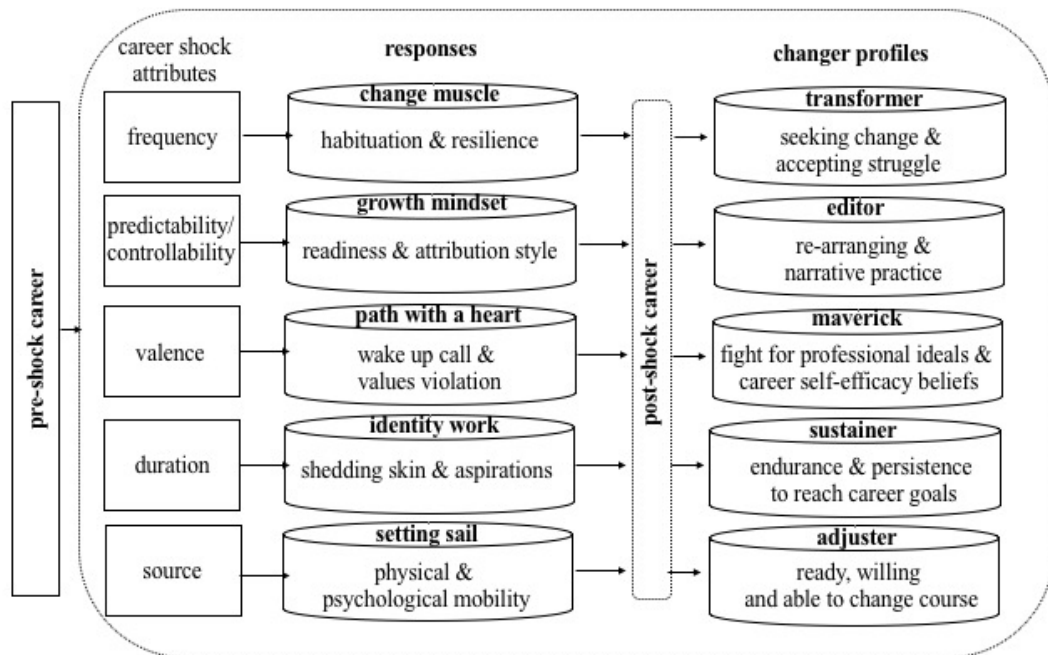
Sex	Age	Shock(s)	Career Change(s)
M	38	Goal Conflicts	Nurse to Hair Dresser*
		Job Loss	Barber to Self-Employment***
F	35	Job Loss	Consulting to Journalism*
M	45	Job Loss	Politics to Social Sector*
M	43	Accident	Mechanic to Office Clerk*
		Job-Offer	Clerk to Manager in Education Sector*,***
		Goal Conflict	Education Sector to Tourism*,***
F	35	Earthquake	Media Advisor to Strategist in Advertising Agency*
		Fraud	Strategist to Graduate Education***
M	44	Ethnicity Related Injustice	Lawyer to Language Teacher*
		Job Offer	Language Teacher to Consultant*
		Economic Recession	Consultant to Bar Man*

		Conflicts with the Team	Bar Man to Language Teacher*
		Job Offer	Language Teacher to Consultant*,***
F	37	Job Offer	Entertainment to Social Sector*
M	38	Job Offer	Medical Doctor to Radio Station Manager*
		Economic Troubles	Entrepreneur in The Design/Event Field*,***
M	40	Pregnancy	Business Consultant to Entrepreneur in Retail*,***
M	35	Financial Troubles of the Employer	Change of Employer**
F	35	Conflicts w/ Organizational Culture	Law to Art*
M	36	Job Offer	From Consulting to Management*
F	41	Change in the management	Journalism to Administration *
		Job Offer	Administration to Marketing in Social Sector*
F	35	Goal Conflict	Fashion Retail to Handcraft*
		Severe Injury	Employment after Self-Employment***
F	39	Gender-Related Injustice	Communication to Energy Sector*
M	41	Job Offer	Administration to Social Sector*
F	37	Goal Conflicts	From Researcher to Consultant*
		Bankruptcy of the Employer	Self-Employment***
M	42	Economic Recession	Banking to Real Estate*

		Accident	Change of Employer**
M	40	Goal Conflicts	Marketing to Social Sector*
F	44	Goal Conflicts	Gaming Company to Personal Development*
F	42	Change in Management	Self-Employment***
F	37	Conflicts w/ Management	Dental medicine to psychological counsellor*
M	44	Job Loss	Researcher in physics to intern in advertising*,***
M	35	Conflicts w/ Management	Journalism to Politics*
		Conflicts w/ Management	Politics to Digital Advertising*
F	40	Economic Recession	Advertising To Public Affairs*,***

2 Note: * marks changes to another field ** to another employer *** to another role (incl. education or self-employment)

RESOURCES TO RESPOND



A1

APPENDIX

Interview guide line

1. How did your career evolve over time?
2. What types of career ruptures have you experienced in your career path?
3. What barriers or drivers did you experience on your way?
4. Please tell me more about your professional situation today.
5. What role did the people around you play in the development of your career?
6. Please tell me what is important to you at work.
7. How does your journey continue?

4.3. Career Crafting

Nalis, I., Kubicek, B., & Korunka C. (resubmission submitted). Resources to respond – a Career Construction Theory Perspective on demands, adaptability and career crafting. *Manuscript submitted for publication in Career in Development Quarterly.*

Resources to respond: A Career Construction Theory perspective on demands, adaptability and career crafting.

Abstract

Purpose – The career construction model of adaptation offers a seminal framework for the understanding of the route individuals need to undertake to deal with the changing demands of today's career landscapes. In the present study, the interactive effect of career adaptability resources with intensified career demands on career crafting is assessed. This study contributes to the literature by examination of structural predictors for adapting responses, and the role of career adaptability as a moderator between structural imposed demands and individual adapting responses.

Design/methodology/approach – Using a representative sample of the German working population (N= 2000) the authors test the model with structural equation modeling.

Findings –Latent structure analysis showed that each of the four career adaptabilities strengthens the relationship between intensified career demands and the career crafting responses of goal setting /networking and reflection. In addition, ANOVA analysis was performed to explore demographic variables as possible boundaries to career self-management within different socio-demographic groups.

Research limitations/implications – Although some group differences were found, the results suggest that all workers are confronted with career demands, possess career adaptabilities and exhibit career crafting behaviors.

Practical implications – The research suggests to focus on the development of career resources in order to enable career crafting.

Originality/value – This study tests and extends the career construction theory's model of adaptation as it provides valuable insights into the interplay of agency and structure in career self-management.

Careers of today are often characterized by increasing demands for individuals to be adaptable and self-directed in their work lives (Akkermans & Kubasch, 2017; Akkermans & Tims, 2017; Brown et al., 2012). Nonetheless many scholars claim that despite the numerous accounts on the changing nature of careers (e.g., Dries, 2011), the role of the structural context and its impact on the unfolding of new careers (Akkermans & Tims, 2020; Akkermans & Kubasch, 2017, Bal & Dóci, 2018) needs more attention. According to Savickas' influential career construction theory (CCT; Savickas, 1997; Savickas & Porfeli, 2012) people differ in regard to readiness, adaptability resources and adapting responses, which results in varying adaptation results of career development. Although a variety of studies have provided support for the theoretical assumptions of career construction theory (Rudolph et al., 2017a in their meta-analysis of career adaptability), we have identified a lack of understanding of structural demands the individual might encounter before career construction is prompted.

With reference to structural demands, Kubicek et al. (2015) launched the concept of intensified career planning and decision-making demands. According to Kubicek et al. (2015), we see the intensification of demands on individuals in the workplace (e.g., workload) and in regard to career development (e.g., planning and decision-making demands). Intensification of jobs career planning and decision-making demands builds on the theory of social acceleration (Rosa, 2003) and captures the increasing demands on individuals to take on responsibility for their careers.

In this study CCT serves as an organizing framework to unearth relations between structural demands, adaptability resources, and adapting responses. Our first research goal is to provide

evidence as to whether and how intensified career planning and decision-making demands relate to career adaptability. Hence, in contrast to earlier research that investigated individual adaptivity as a trait (Rudolph et al., 2017), we contribute to understanding of the career adaptation process by adding the perspective of the perceived intensification of career planning and decision-making demands. As a second research goal, we aim to investigate whether career-adaptability resources would strengthen the associations between intensified demands and the adaptive response of career crafting.

In order to better understand the structural context of career construction, we assess whether intensified career planning and decision-making demands are related to individual adapting responses. Within CCT, adapting responses are described as behaviors such as career planning, career exploration or career self-efficacy (Hirschi et al., 2015; Rudolph et al., 2017a). The newly operationalized concept of career crafting (Akkermans & Tims, 2017, 2020) captures the aspects of career planning and career exploration as mentioned in CCT. Career crafting might be an adapting response of individuals who encounter intensified career planning and decision-making demands. Furthermore, it is embedded in the framework of sustainable careers (Valcour, 2015; Van der Heijden & De Vos, 2015). According to Heslin et al. (2020) this framework allows to address the harsh context of careers of today and aims to enable a career where individuals can be reasonably healthy, happy and active across their entire work lives.

Another question in research and theory on changing careers concerns the resources individuals need to respond to the raising demands of career construction (Urbanaviciute et al., 2019). According to Mauno et al. (2019), the intensification of demands in the workplace and work life is ubiquitous due to technological acceleration, which impacts all aspects of the work world. Therefore, we assume career adaptabilities resources are essential for coping with intensified career planning and decision-making demands. Rudolph et al. (2017a) argue that despite the large body of research that underlines the positive effects of career adaptability to

cope with challenges on the career path, the moderating effect of career adaptability resources has rarely been investigated. This lack of research is particularly astonishing given the growing body of literature that recognizes the importance of individual resources for coping with the demands of career self-management (Akkermans & Kubasch, 2017; Hirschi, 2012; Forrier et al., 2015). In the present study, the interactive effect of career adaptability resources with intensified career demands on career crafting is assessed.

This study contributes to the literature by filling two theoretical gaps: the question of structural predictors for adapting responses, and the role of career adaptability as a moderator between structural demands and individual adapting responses. First, we contribute to the scholarly debate on structural predictors of adapting responses by examining the role of intensified career planning and decision-making demands (Kubicek et al., 2015) in prompting career self-management behaviors, as operationalized by the concept of career crafting (Akkermans & Tims, 2020). Second, we extend previous literature on the CCT model of adaptation and research on career adaptability (Savickas, 1997; Savickas & Porfeli, 2012) by investigating the four career adaptabilities concern, control, curiosity, and confidence as potential moderators. Hence, by examining the moderating effects of the career adaptability resources, we add insight to the CCT model of adaptation where adaptability is assumed to facilitate adapting responses to changing conditions (Rudolph et al., 2017a).

In the present study, we propose a moderation model grounded in CCTs model of adaptation. The aim is to understand whether the responses of a representative sample of individuals to intensified career demands in terms of career crafting depend on the career adaptabilities resources they possess. Hence, CCT serves as an organizing framework in order to unearth relations between structural demands, adaptability resources and adapting responses.

Intensified career planning, decision-making demands and career crafting

The landscape for careers today is mainly characterized by decreased stability (Van der Heijden & De Vos, 2015) and increased unpredictability (Van der Horst et al., 2017). This

instability and unpredictability lead to heightened demands of career self-management (Hall, 1996). Our choice to examine structural conditions in a representative sample with respect to current employment conditions is based on previous research on changing demands.

This study was undertaken in Germany, one of the largest economies in the world with increasing demands for the workforce. Germany is currently seeing a technology-driven polarization of the labor market, as are most of the industrialized countries (Antonczyk et al., 2017). This research lays the ground for our design and analysis, particularly the examination of the intensification of career planning and decision-making demands, which is theoretically derived from the sociological concept of acceleration by German sociologist Hartmut Rosa (2003). According to Kubicek et al. (2015), who derived the concept of intensified demands in reference to Rosa (2003), intensification has roots in technological acceleration and current human resource management practices, which are characterized by an increase in options and demands for heightened autonomy for employees. Moreover, more and more researchers highlight challenges to career development in multicultural societies (e.g., Sultana, 2017) in regard to career challenges related to ethnicity and migration (e.g., Wehrle et al., 2019).

As individuals increasingly need to become strategic actors of their careers, planning and decision-making demands are intensified (Kubicek et al., 2015). Kubicek et al. (2015) assume that this intensification affects everyone who is either working or looking for work – regardless of sector, education, age or gender. They further note that the demand to autonomously plan and pursue a career (Zeitz et al., 2009) shows within an individual's current employing organizations, as well as it requires the individual to be aware of and open to future career opportunities. In line with this assumption, Rudolph et al. (2017a) state that employees face transitions between jobs, organizations, and occupations more frequently than ever before.

Kubicek et al. (2015) bridge the structural perspective of accelerated economic, societal, and organizational transformations with the individual perception of the intensification of career planning and decision-making demands. Their approach does not focus on career

planning and decision-making behavior and their challenges (e.g., Gati et al., 1996; Lipshits-Braziler et al., 2015). Instead, the focus is on the perception of demands and whether the individual experiences an intensification of these demands.

The demands of increasing flexibility and self-management have prompted scholars to develop and refine concepts that tackle the question of the competencies employees need in their jobs and careers (e.g., Parker et al., 2009). Recently, the question of how competencies can be transformed into actual behaviors (Akkermans & Tims, 2017) has become prevalent. Akkermans and Tims (2017, 2020) build on the concept of job crafting Wrzesniewski and Dutton (2001) in projecting job crafting activities onto the realm of career development.

Within the new conceptualization, career crafting is defined as proactive career self-management behavior which consists of two sub-dimensions which are referred to as the sub-dimension of goal setting/networking and the sub-dimension of reflection (Akkermans & Tims, 2017, 2020). Goal setting/networking is described as thinking on one's own skills and passions, along with making the right social connections (e.g., to expand one's network). Reflection entails thinking about values, passions, strengths, weaknesses, and skills with regard to one's personal career.

In line with research showing that adapting responses are triggered by challenging circumstances (e.g., Johnston, 2018), we assume that intensified career planning and decision-making demands are related to adapting responses, such as career crafting. For instance, intensified planning and decision-making demands have been linked to stimulate motivation and to serve as a performance boost (Crawford et al., 2010; Mauro et al., 2020), where intensified demands (IJDs) have been shown to as antecedents for positive outcomes such as to stimulate motivation and to serve as a performance boost (Crawford et al., 2010).

Therefore, we hypothesized that intensified demands of career planning and decision-making can be assumed to be a predictor adapting responses. A relation between the two constructs can be expected because the perceived intensification of career demands stems from

the need to ensure employability, and career crafting is expected to be associated with employability (Akkermans & Tims, 2020). Moreover, career crafting is assumed to be an adequate response to intensified demands. Hence, we hypothesize that there is a positive association between intensified career planning and decision-making demands with both dimensions of career crafting (goal setting/networking and career reflection).

Hypotheses 1a-1b: Intensified career planning and decision-making demands are positively associated with (a) goal setting/ networking and (b) career reflection.

Intensified career demands, career adaptability resources, and career crafting responses

CCT proposes that adapting responses might be considerably moderated by the availability of individual career adaptability resources. For instance, career adaptability has been shown to enable proactive career behavior (Taber & Blankemeyer, 2015) or heighten career resilience (Hartung & Cadaret, 2017; Lyons et al., 2015; Seibert et al., 2016). Within CCT, career adaptability is described as a multi-dimensional psycho-social resource that entails the four dimensions of concern, control, curiosity, confidence (Savickas & Porfeli, 2012). According to the original definition by Savickas and Porfeli (2012), the four career adaptabilities are described as follows: *concern* is a future-oriented resource where individuals plan and prepare their career tasks; *control* depicts the extent to which individuals take on the responsibility for their personal career development; *curiosity* works as a resource that facilitates the envisioning of future work selves, career planning, and exploration; and *confidence* describes the belief in one's own ability to succeed. As we assume that career crafting is an adapting response to intensified demands in career self-management, we also seek to gain an understanding of the conditions in which the association between intensified career planning and decision-making demands and career crafting is strengthened or weakened.

Building on the CCT model of adaptation, we expect that career adaptability acts as a resource for strengthening the association of demands and responses. In our analysis, we

followed the recommendation by Rudolph et al. (2017b) who highlight the importance and discriminant strength of investigating the four adaptability resources separately in their meta-analysis. For instance, Urbanaviciute et al., (2018), show that the four career adaptabilities have different roles in predicting job insecurity. Distinguishing between the four adaptability resources also builds on Savickas and Porfeli's (2012) original notion as four lower order dimensions that help individuals to deal with different tasks of change.

The contribution by investigation of the adaptability resources separately rather than examining one aggregated factor allows for a detailed understanding of the role of each of the four dimensions: concern, control, curiosity, and confidence. For *concern*, it can be expected that the mere recognition of the challenges of career development of today is already a first step toward adequate adapting responses. According to Zacher (2014b), individuals who score high on concern are likely to plan carefully how to achieve their career goals. In regard to the resource of *control*, it can be supposed that the cognitive and behavioral responses improve in face of career demands once individuals take control of maintaining or increasing their person-career fit (Akkermans & Tims, 2020, Negru-Subtirica et al., 2015). *Curiosity*, which shows in exploring behavior and the probing of questions before making a choice (Savickas & Porfeli 2012), should equip individuals for adapting responses, such as career crafting networking/goal setting and reflection behaviors. This assumption is based on evidence by Zacher (2016), where curiosity was shown to involve both actively exploring possible future selves as well as thinking about opportunities. The fourth career adaptability, *confidence*, should also serve as a resource that strengthens the individual response of career crafting, both from the cognitive as well as the behavioral dimension. Evidence surrounding career self-efficacy (Betz, 2007; Negru-Subtirica & Pop, 2016) has shown a virtuous cycle, in that to believe one can achieve what one wants to do, helps to set the action in motion and henceforth supports pursuing vocational aspirations.

In summary, we propose that the relationship between demands and the adapting response of career crafting will be strengthened by each of the career adaptability resources through different mechanisms, while concurrently all resources will help the individual successfully respond to the intensification of career demands.

Hypotheses 2a-2d: The relation between intensified career demands and goal setting/networking is strengthened by (a) concern, (b) control, (c) curiosity, (d) confidence.

Hypotheses 3a-3d: The relation between intensified career demands and reflection is strengthened by (a) concern, (b) control, (c) curiosity, (d) confidence

Method

Participants

Most of the studies on contemporary careers have been carried out in managerial samples (e.g., Bal & Dóci, 2018; Gunz et al., 2011) or academic samples (e.g., Urbanaviciute et al., 2019). Due to these well-educated and often high-income samples, concerns exist regarding the overemphasis of claims for agentic behavior (Akkermans & Kubasch, 2017; Gunz et al., 2011; Sullivan & Baruch, 2009; Tomlinson et al., 2018).

We aimed for representativeness and recruited a sample of 2000 employees selected by quota with reference to characteristics of the German labor market as depicted by the German federal statistics office. The sample size follows the guidelines of large European surveys, such as the European Labor Force Survey, where a sample size involving a minimum of 1000 for all countries is recommended (e.g., Quatember, 2002).

In correspondence with the aim to investigate a representative sample, the quotation for participation in the online survey followed information as depicted by the German federal statistics office in regards to gender (female 42%, male 58%), age (clustered in three age groups with reference to early, mid and later career stages with 17% aged 18 to 29 years, 32% aged 30 and 44 years, and 51% aged 45 to 65), education (the quota represented 84% participants that

have no academic degree and 16% with academic degrees), and sector (69.4% service industry, 30% industrial sector, 0.6% agriculture). Furthermore, employment status (full time, part time, self-employed), and income were collected, yet not selected as part of the quota procedure. The average age of the respondents was 44 years ($SD = 12.48$), and 42% of the respondents were female, hence meeting the selection criteria for representativeness as did the other demographic variables.

Data was collected via an ESMOAR-member and ISO-certified (ISO 26362) German online panel (www.respondi.com). This panel recruits its participants via offline and online methods. The professional panel provider assures high quality through minimizing individuals' participation frequency, focusing on intrinsic motivation, and conducting continuous controls.

Characteristics of the participants are shown in table 1.

Insert table 1 here

Measures

Intensified career-related planning and decision-making demands were assessed using the subscale of the Intensification of Job Demands Scale (IDS, Kubicek et al., 2015). This instrument allows to measure changes in career demands with several advantages over longitudinal data in the assessment of changes experienced by respondents, as it builds on the respondents' ability to retrospectively assess long-term changes by directly asking to do so. The career sub-scale consists of three items that measure heightened requirements for self-directed career development (e.g., "In the last five years one increasingly has to plan one's professional career independently"). The participants responded to the items through the use of a 5-point scale that ranged from 1 (not at all) to 5 (agree strongly). The IDS scale was shown to capture the perceived intensification of career demands from the structural perspective of changes in the labor market. Accordingly, within the IDS, the construct of intensified career planning and decision-making demands is a unidimensional factor (Kubicek et al., 2015; Mauno et al., 2020). Hence, it does not investigate the two distinct acts of planning and deciding but the

intensification of career self-management demands, which simultaneously comprises both elements. The internal consistency score of the scale, as indicated by Cronbach's Alpha, was satisfactory ($\alpha = 0.83$). Within the original validation study of the IDS scale (Kubicek et al., 2015), confirmatory factor analysis supported the intensification of career planning and decision-making demands as one distinct factor.

Career adaptability was assessed with 24 items that were taken from the German version of the Career Adapt-Abilities Scale (CAAS; Johnston et al., 2013). The scale consists of four sub-scales (concern, control, curiosity, and confidence). Each sub-scale included six items. Participants responded to adaptability items using a 5-point scale that ranged from 1 (not strong) to 5 (strongest). Items for each of the four career adaptability resources were framed with regard to different strengths people use to build their careers. Participants were asked to rate how strongly they have developed each of the abilities, e.g., "Preparing for the future" (career concern), "Taking responsibility for my actions" (career control), "Exploring my surroundings" (career curiosity), and "Performing tasks efficiently" (career confidence). Within our study the internal consistencies of all sub-scales, as indicated by Cronbach's Alpha, were satisfactory (concern $\alpha = .89$, control $\alpha = .87$, curiosity $\alpha = .87$, confidence $\alpha = .89$). Within the validation study of the German C-AAS scale (Johnston et al., 2013), applied confirmatory factor analysis to test the hierarchical four factor model and reported good model fit ($\chi^2 = 2028.35$, $df = 248$, RMSEA = .08, CFI = .89, TLI = .88)

Career crafting was measured using the Career Crafting Survey (CCS, Akkermans & Tims, 2020), which measures individual proactive behavior in a career context and focuses on what individuals should do in order to craft their careers successfully. The survey consists of nine items, which are divided into two factors of doing (goal setting/networking) and thinking (reflection). An example item for goal setting/networking was "I inform important people at work about my achievements and results". The dimension reflection deals with the inwardly directed steps that one needs to undertake in the crafting of one's career. An example item was

“I take the time to reflect on what I am passionate about in my work”. The items were presented using a 6-point scale that ranged from 1 (not strong) to 6 (strongest). The internal consistencies of the sub-scale, as indicated by Cronbach’s Alpha, were satisfactory ($\alpha = .87$ for goal setting/networking; $\alpha = .91$ for reflection). As this is the first study to utilize this newly developed scale in a German-speaking sample, a back-translating procedure was used to translate the nine items from English into German. As this is the first study to utilize this newly developed scale in a German-speaking sample, a back-translating procedure was used to translate the nine items from English into German. The first author—a native German speaker who is fluent in English, a psychologist, and familiar with the construct assessed by the scale—translated the CCS originally developed by Akkermans and Tims (2020). After the initial translation, the authors convened a reconciliation meeting during which any contextual discrepancies in translations were discussed and after which a final translated version of each item was agreed upon. This procedure followed standard examples of back-translation (Vijver & van de Leung, 1998) to ensure comprehensibility for respondents and faithfulness to the original intention and wording of the scale.

In their validation study, Akkermans and Tims (2020) run exploratory factor analysis of an original 24-item version of the CCS which led to a 10-item version, also applied by this study. The consecutive confirmatory factor analysis for scale validation showed a good model fit for the two-factor model ($\chi^2 = 98.03$, $df = 19$, $CFI = .95$, $TLI = .93$, incremental fit index = $.95$, $RMSEA = .09$).

Statistical Analysis

We used structural equation modelling (SEM) with the MLR estimation method to test the hypotheses using the XWITH command in Mplus software (Muthén & Muthén, 1998–2012). The size of our sample ($N=2000$) allowed for the moderation analysis of latent interaction (Schreiber et al., 2006). In the models, independent variables were intensified career planning demands, whereas the four career adaptability resources served as moderator

variables, with networking and reflection serving as dependent variables. To avoid multicollinearity, each adaptability resource and their respective interaction term, was analyzed separately for the two dependent variables. We calculated the latent interactions using the analytic procedures proposed by Maslowsky et al. (2015). Significant interaction effects were plotted and graphically inspected based on the parameter values of beta-coefficients, confidence intervals and standard deviations (Aiken et al., 1991).

Results

Descriptive results

Means, standard deviations, range and correlations of the study variables are presented in table 2.

INSERT Table 2 here.

CFA and measurement model

In order to assess the dimensionality of the study variables, confirmatory factor analyses (CFA) were conducted with Mplus 8.1 (Muthén & Muthén, 1998-2017) for CAAS and CCS, but not for IDS, as intensified career planning and decision-making demands were expected to be unidimensional (Malhotra & Sharma, 2008 in Akkermans & Tims, 2017). Results of the CFAs supported the expected multi-dimensionality of the measures. The CFA fit indexes showed good model fit for both scales (CAAS MODEL FIT $\chi^2 = 1160.835$, $df = 242$, RMSEA = .04, CFI = .96, AIC = 95916.789; CCS MODEL FIT $\chi^2 = 133.290$, $df = 22$, RMSEA = .05, CFI = .99, AIC = 45141.836). According to Maslowsky et al. (2015), CFI values greater .95 and RSMEA below .08 generally allow for the assumption of good fit. Hence, the CFAs supported the proposed structure of the measures.

The CFAs allowed us to specify correlated residuals which stem from similar wording of item content, therefore these items are also specified in the further estimation of the structural model. Table 3 shows the results for the CFAs of CAAS, CCS and the measurement model with all items. In summary, the results supported the proposed approach to investigate the

moderating effect of the four career adaptabilities separately, as well as the two-dimensional structure of career crafting and the unidimensional structure of intensified career planning and decision-making demands.

Model results

After ensuring the fit of the measurement model, the structural model was estimated by specifying the main effects without the latent interaction term (Model 0) in a first step, and the main effects with the latent interaction (Model 1) in a second step. We applied common reporting standards and separately assessed the effect of predictor variables and interaction effects on career crafting. The model was controlled for age, gender and education. The model fit indices can be found in table 3.

Insert Table 3

In Hypothesis 1, we expected a positive association between intensified career planning and decision-making demands and both dimensions of career crafting: networking/goal setting and reflection. As hypothesized, the relationships between intensified career demands and the adapting responses of goal setting/networking and reflection were statistically significant. See table 4 for results. The more workers perceived that career planning and decision-making demands intensified over the last two years, the more they were likely to explore networks and construct goals. Likewise, the higher the perceived increase in demands to plan and decide, the more workers reflected on their careers.

Insert Table 4

Hypotheses 2 and 3 proposed that each of the four career adaptabilities would strengthen the relationship between intensified career demands and the adapting response of career crafting signified by either goal setting/networking behavior or reflection. All interaction coefficients were statistically significant and pointed towards a positive direction. Concern showed to improve both career crafting responses to the same extent. Control also exerted a positive impact on career crafting. However, goal setting/networking was twice as strongly enforced by

this career adaptability. The career adaptabilities of curiosity and confidence also had a stronger impact on the relation of intensified career planning and decision-making demands with career crafting on the dimension of goal setting and networking, yet the difference was smaller than for control. In summary, the interaction effects demonstrated a consistent pattern: all four career adaptability resources were shown to strengthen the relation between career planning and decision-making. The results of the interaction plots are shown in figure 1.1. to 1.8.

Insert figures 1.1. to 1.8. here

Discussion

The aim of this paper was to examine the resources and responses needed for coping with the increased demands of career self-management. We showed that adapting responses (operationalized via career crafting behaviors) are related to intensified career planning and decision-making demands and more so, when the ability to shape one's environment and one's personal career increases with the availability of adaptability resources.

By integrating assumptions regarding intensified career planning and decision-making demands into the CCT model of adaptation, we aimed to highlight the structural conditions that might hinder or foster the self-management of careers. This approach was chosen in order to rebuke the often-voiced critique that individual agency is overemphasized in career studies (e.g., Dries, 2011), while structural conditions are neglected (Akkermans & Kubasch, 2017; Bal & Dóci, 2018; Gunz et al., 2011; Sullivan & Baruch, 2009; Tomlinson et al., 2018).

The concept of career crafting, with its novel operationalization through the Career Crafting Survey developed by Akkermans & Tims (2020), served as the central outcome variable that was chosen to operationalize the adapting response within the CCT's career construction model of adaptation and shows as adequate response. Congruent with earlier research on job crafting (e.g., Tims & Bakker, 2010), career crafting is shown to be a response that shapes the demands imposed by the work environment. By means of a latent interaction modeling, we contributed to the understanding of the circumstances in which adaptive

responses – and thereby career crafting – are enabled. Our study shows that the four adaptability resources (concern, control, curiosity, confidence) strengthen the relation of intensified career planning and decision-making demands with the adapting response of career crafting.

Moreover, the results from this study should be set in context of the German labor market, where this study took place. Research on differences and similarities between the German and the U.S. labor market showed that the situations are comparable, although the social-welfare structures differ (e.g., health insurance, unemployment compensations). For instance, Reinhold et al. (2017) examined the changing situation of labor market entrants, both in the U.S. and German labor markets. They found similar career path challenges, particularly in declining fortunes of the young who are faced with decreasing wages.

Theoretical implications

Our study tests and extends the career construction theory's model of adaptation, (Rudolph et al., 2017a; Rudolph et al., 2017b; Savickas & Porfeli, 2012; Savickas, 1997) in several ways: by extending the view of predictors of adapting responses from a trait perspective to the perception of externally-imposed intensification of career planning and decision-making demands (Kubicek et al., 2015), we found that career responses can be predicted by the increase of structural demands; these adapting career responses to increasing career demands are positively moderated by career adaptability resources; and our results allow us to deepen the understanding of actual proactive career behaviors based on our focus on the outcome variable of adapting responses instead of the more frequently researched aspect of adaptation.

Hence, we provide valuable insights into the interplay of agency and structure in career self-management. As projected, career resources increased the positive effect. Therefore, this study provides support for Savickas and Porfeli's (2012) proposition on the beneficial role of career adaptability resources. Moreover, it expands the literature on the positive impact of career competencies with detail to the newly developed career crafting concept (Akkermans & Tims, 2020).

As shown in our study, intensified career planning and decision-making demands can act as a challenge demands (Mauno et al., 2019) that might stimulate adapting response if the relation between demand and response is strengthened by career adaptability resources. Hence, we could contribute to understanding of proactive career behaviors and their relation to structural challenges. Albeit our research was conducted in a large sample representative of the German work force, it could be fruitful to further investigate availability and outcomes of resources to respond. Further theoretical implications could derive from future research investigating group differences in the availability of resources to respond, for instance, the employment perspectives of different occupations in regard to shifts in the labor markets. Researchers could compare high-demand occupations (e.g., care of the elderly) with occupations at threat of technological unemployment (e.g., sales clerks) with a focus on structural barriers and contextual factors derived from the psychology of working theory (Duffy et al., 2016) or the systems-theory framework of career development (McMahon & Patton, 2019). Moreover, researchers could develop a class factor comprising education and income or collect data on migration and native languages. These efforts could advance research on career self-management in relation to structural barriers and context.

Practical implications

Our research aimed at providing further understanding of the strategies individuals might undertake to proactively manage their careers. Building on the original conceptualization of career adaptability by Savickas and Porfeli (2012) as malleable competencies, we would like to encourage practitioners and scholars to focus on the development of career resources in order to enable career crafting.

The skills and mindsets implied in career construction theory (Savickas & Porfeli, 2012; Savickas, 1997) with its proposed array of career resources (concern, control, curiosity, confidence) and the literature regarding the life-design method (Savickas, 2012) offers didactical steps towards the design of career development projects for all stages of the work

life. Likewise, the conceptualization of career crafting (Akkermans & Tims, 2013) offers practical insights for career self-management which is neither restricted to one employer nor to linear and upward moving career paths. Instead its focus lies in a sustainable career (Van der Heijden & De Vos, 2015).

We believe that interventions should acknowledge possible structural barriers caused by socio-demographic differences, and aim at increasing the availability of psycho-social resources. Hence, interventions of substantial practical value could offer means to develop adapting responses (e.g., Wehrle et al., 2019, and their research on career adaptability in refugees). For instance, the curricula in apprenticeships and technical schools could focus on the development of adapting responses from an early age in order to develop and maintain individual career self-management abilities.

Furthermore, practical interventions should acknowledge possible structural barriers caused by socio-demographic differences and aim to increase the availability of psycho-social resources. For instance, understanding demographic differences could allow the examination of how resources to respond assist in the development of “decent work” in reference to the Psychology of Working Theory (Blustein et al., 2019; Duffy et al., 2016) with respect to structural barriers to career development.

Limitations

Two central limitations have been identified in the current study: common source variance and cross-sectionality. Since we collected data from a single source, our findings may be biased through common source variance (Podsakoff et al., 2003). However, this can widely be excluded as we conducted CFA and controlled for a common latent factor (Podsakoff et al., 2003). Moreover, interaction effects relying on a single method are unlikely to be a problem, as common method bias deflates interactions (Siemsen, et al., 2010). Thus, the found interaction effects are hardly methodological artefacts. In addition, career planning and decision-making demands, as well as perceived adaptability resources and career crafting dimensions, are mainly

self-focused constructs. Therefore, we believe that self-reporting is an appropriate method of assessment.

However, there is a limitation in regard to our cross-sectional data which does not allow for causal interpretations or any empirical evidence pertaining to the long-term effect of career adaptability resources on the relation of intensified career planning and decision-making demands. Such a longitudinal investigation of the relations between demands with adaptation results might, however, be a fruitful perspective for future research.

Conclusions

This study provides an extension to the CCT's model of career adaptation and the first results of a representative study that uses the Career Crafting Survey by Akkermans and Tims (2020). The aim is to provide a clearer understanding of the resources and responses to intensified demands in career planning and decision-making. This study contributes to the expanding field of research on CCT by shedding light on individual and structural options in career self-management pertaining to the entire working population.

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Figure 1 Hypothesized Model

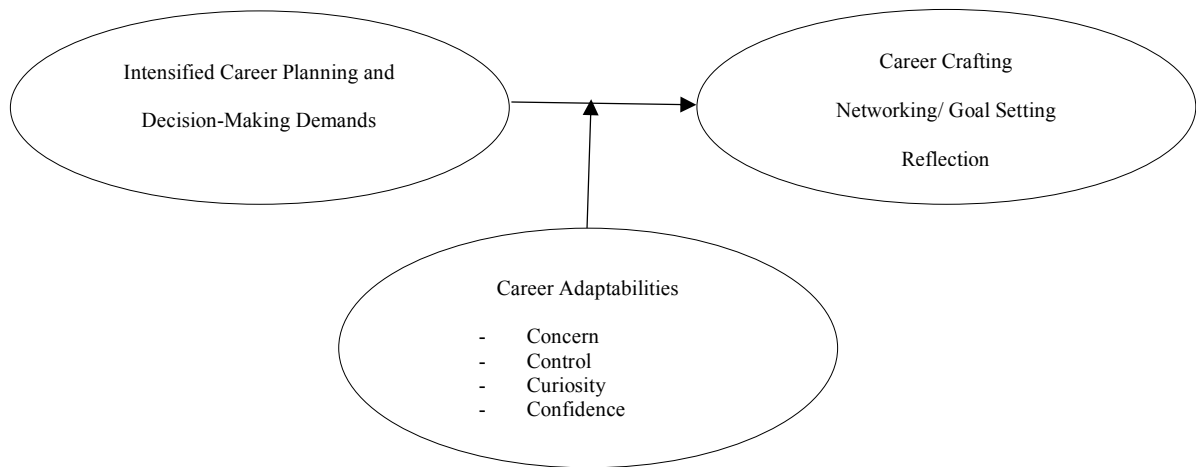


Table 1

Participant Characteristics

Characteristic	Sample
Total	100% (2117)
Age	44 ± 12
Gender	
Female	42% (840)
Male	58% (1160)
Highest education completed	
Compulsory School	15% (300)
Middle School	39% (768)
A-Levels	7% (144)
Apprenticeship	23% (466)
University	16% (322)
Employment	
Full time employment (30 hours or more per week)	71% (1421)
Part-time employment (15 hours or more hours per week)	19% (377)
Self employed (full time / part time)	10% (202)
Currently without employment	0% (0)
Pensioner (formerly employed)	0% (0)
Not working / other	0% (0)
Industry	
Manufacturing including construction	20% (400)
Public service, education, health and social work	24% (480)
Trade, transport, hospitality	19% (386)
Other services (business services, IT and communication, finance and insurance, real estate)	26% (518)
Industry, manufacturing (food and feed production, mechanical engineering, tobacco processing)	10% (203)

RESOURCES TO RESPOND

Table 2

Correlations, means, standard deviations and range

Variables	<i>D</i> <i>in</i> <i>ax</i>									
						0 1				
1 Age	4,14	2,48	8	5						
2 Gender ^a	,58	,49			13**					
3 Education ^b	,87	,36			13**	01				
4 Income ^c	,32	,81			06**	24**	12**			
5 Intensification of career demands	,16	,07			.14**	.10**	06**	01	.83)	
6 Goal setting/Networking	,56	,07			.12**	.03	01	09**	35**	.87)

7 Reflection	.71	.02	.18**	.08**	.06*	.09**	.44**	.72**	.91)		
8 Concern	.35	.82	.14**	.04	.01	.05*	.52**	.50**	.60**	.90)	
9 Control	.86	.65	.15**	.05*	.02	.08**	.28**	.39**	.40**	.43**	.87)
10 Curiosity	.46	.69	.06**	.05*	.00	.08**	.36**	.53**	.57**	.53**	.64** .87)
11 Confidence	.88	.64	.05*	.09**	.03	.05*	.32**	.46**	.50**	.47**	.72** .66** .89)

Note. Cronbachs alpha shown in parenthesis. ^aSex: 1 = *female*, 2 = *male*. ^bHighest education: 1 = *Compulsory School*, 2 = *Middle School*, 3 =

A-Levels, 4 = *Apprenticeship*, 5 = *University*, ^cIncome: 1 = *Below 1.000 €*, 2 = *1.000 - 2.000 €*, 3 = *2.000 - 4.0000 €*, 4 = *4.000 - 6.000 €*, 5 = *More*

than 6.000 €. $p > 0.05$, $*p < 0.05$, $**p < 0.01$.

Table 3

Results of Testing Model 0

	χ^2	RSM	AIC
Model fit goal setting/networking	577.	0.07	6609
Model fit goal setting/networking	428.	0.06	6360
Model fit goal setting/networking	330.	0.048	6462
Model fit goal setting/networking	388.	0.054	6036
Model fit reflection concern	843.	0.072	6806
Model fit reflection control	594.	0.059	6573
Model fit reflection curiosity	570.	0.058	6674
Model fit reflection confidence	584.	0.060	6249

Note. It is not possible to compute the model for interaction terms (model 1)

RESOURCES TO RESPOND

Table 4

Results Main Effects (Model 0) and Latent Interactions (Model 1)

	DV: goal set./ network.			DV: reflection		
	Model 0	Model 1	Change in R ²	Model 0	Model 1	Change in R ²
Concern	0.57**	0.60**		0.58**	0.60**	
IDS	0.10**	0.10**		0.15**	0.15**	
Interaction		0.15**			0.10**	
R ²	0.41**	0.47**	0.06**	0.48**	0.50**	0.02**
Control	0.40**	0.72**		0.31**	0.33**	
IDS	0.32**	0.36**		0.38**	0.37**	
Interaction		0.23**			0.08**	
R ²	0.31**	0.34**	0.03**	0.32**	0.34**	0.02**
Curiosity	0.58**	0.59**		0.51**	0.52**	

IDS	0.20**	0.20**		0.30**	0.28**	
Interaction		0.08**			0.05**	
R ²	0.48**	0.49**	0.01**	0.46**	0.47**	0.01**
Confidence	0.48**	0.52**		0.41**	0.45**	
IDS	0.28**	0.25**		0.35**	0.32**	
Interaction		0.11**			0.36**	
R ²	0.40**	0.43**	0.03**	0.39**	0.42**	0.03**

Note. Above-reported coefficients are standardized. *p < .05; .01**

Figure 1.1. to 1.4. Visual representations demonstrating the moderation of the effect of intensification of career planning and decision-making demands on goal setting/networking by the 4 C's.

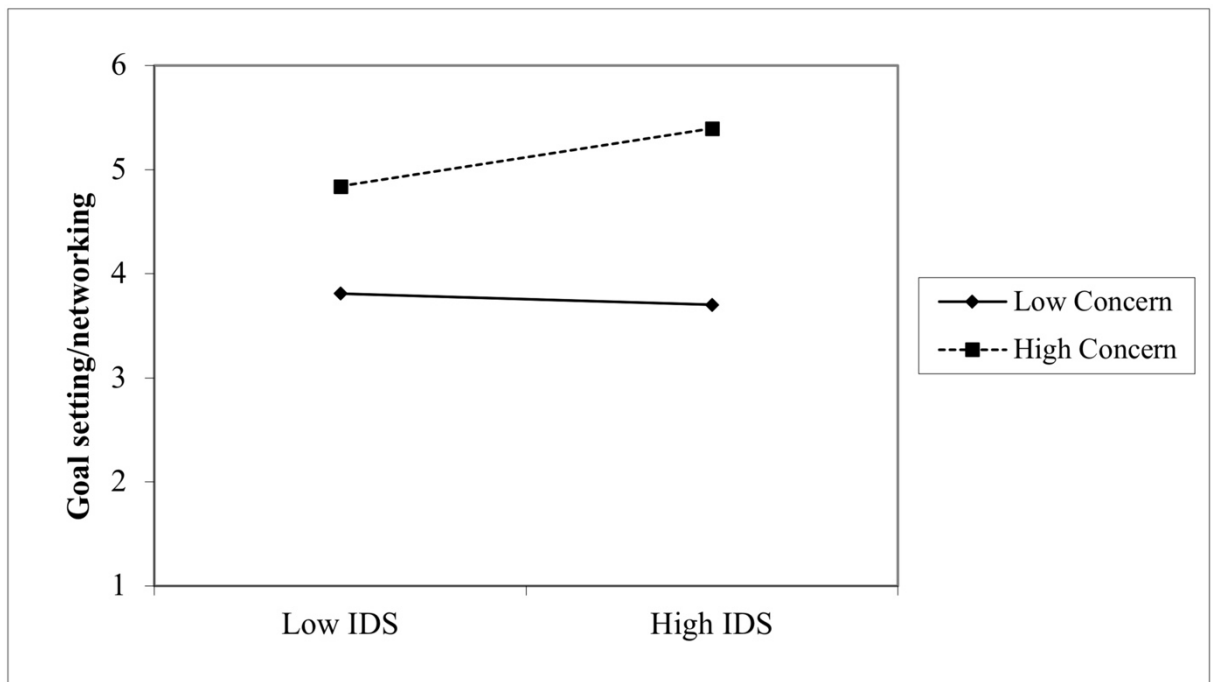


Figure 1.1. H2a) Interaction plot: Concern

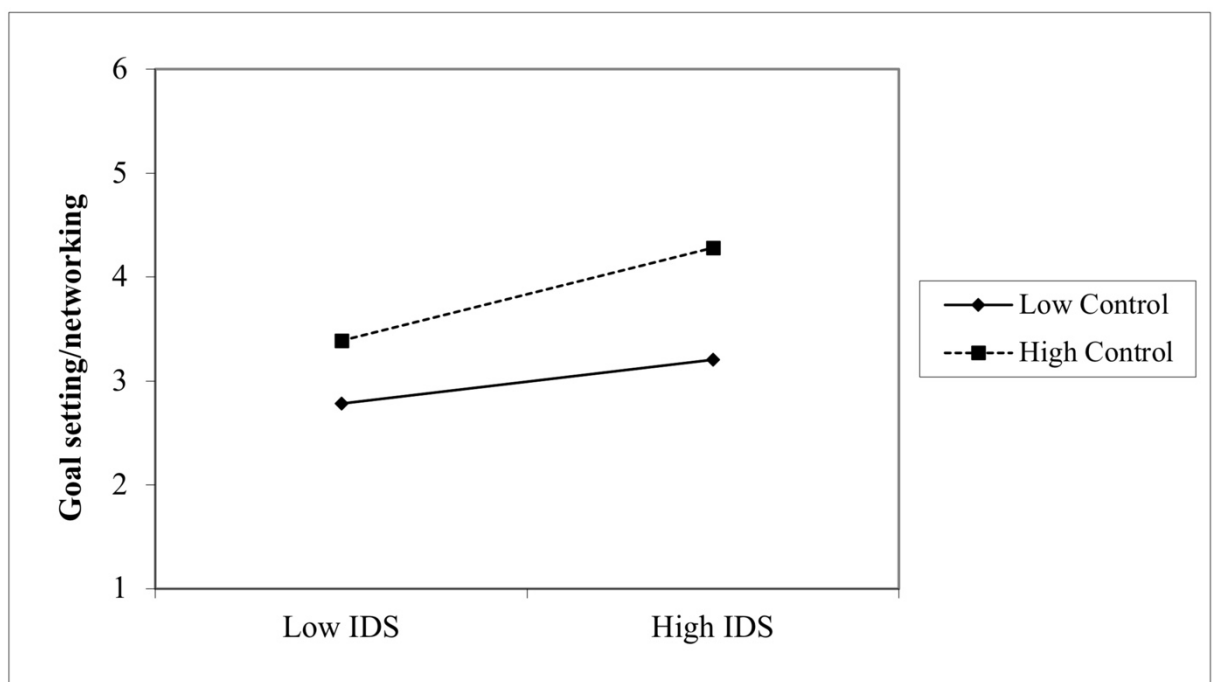


Figure 1.2. H2b) Interaction plot: Control

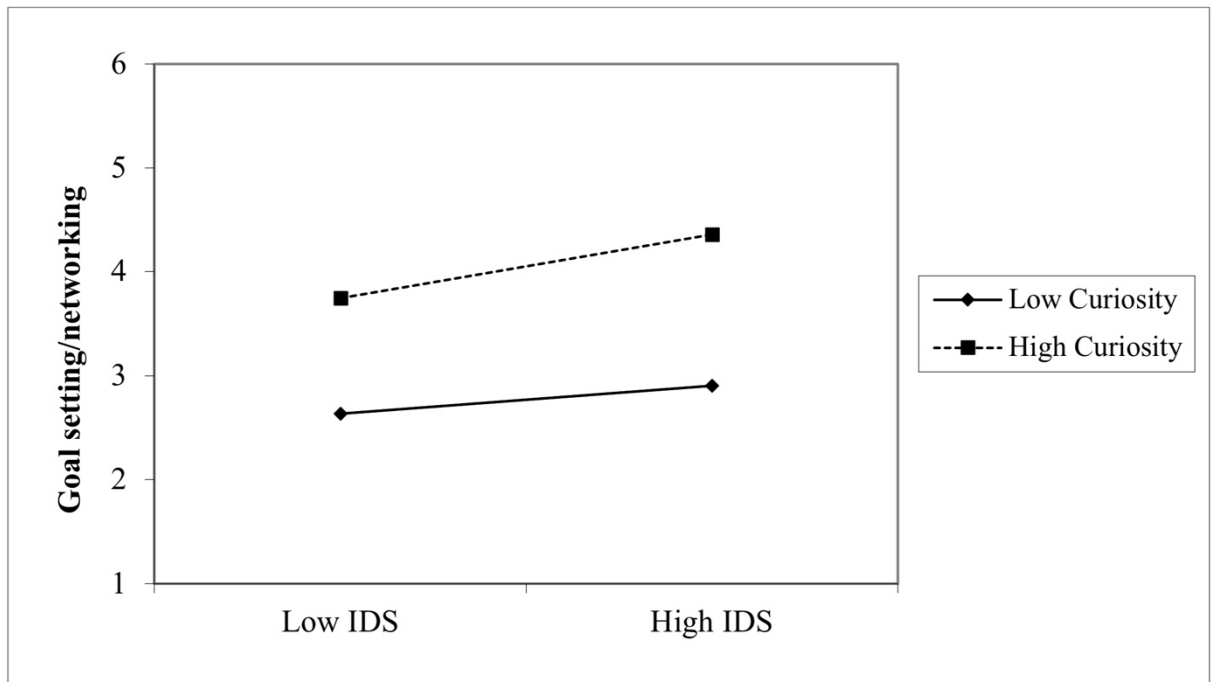


Figure 1.3. H2c) Interaction plot: Curiosity

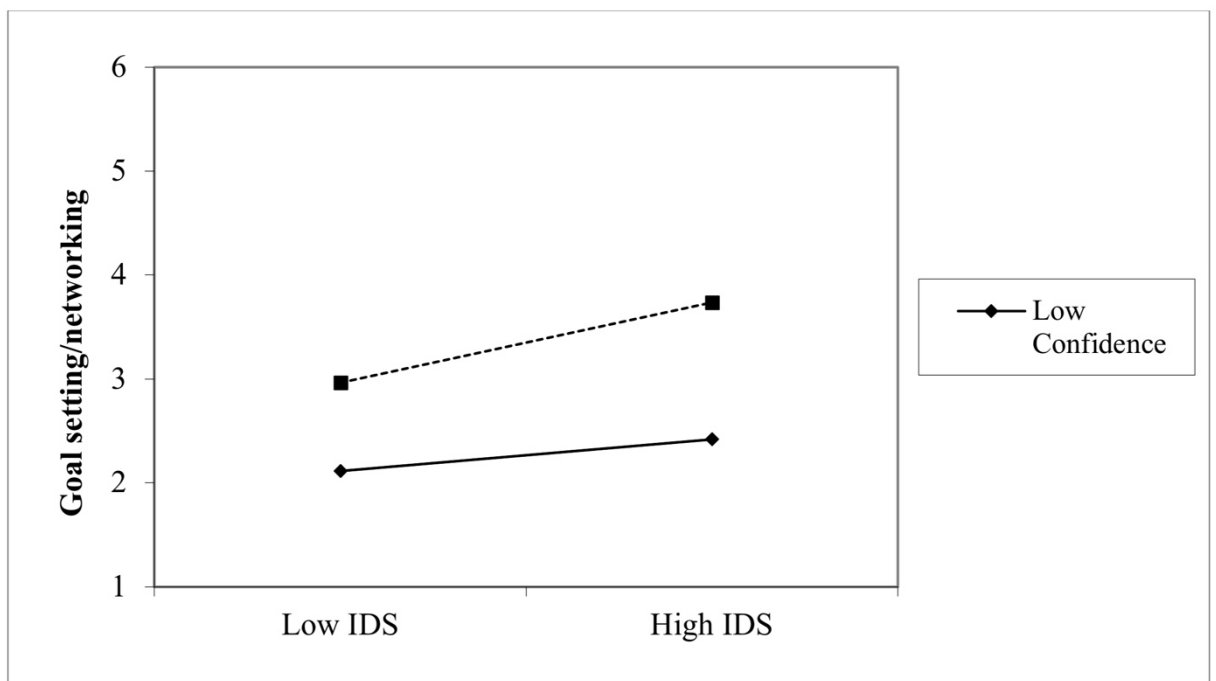


Figure 1.4. H2d) Interaction plot: Confidence

Figure 1.5. to 1.8. Visual representations demonstrating the moderation of the effect of intensification of career planning and decision-making demands on reflection by the 4 C's.

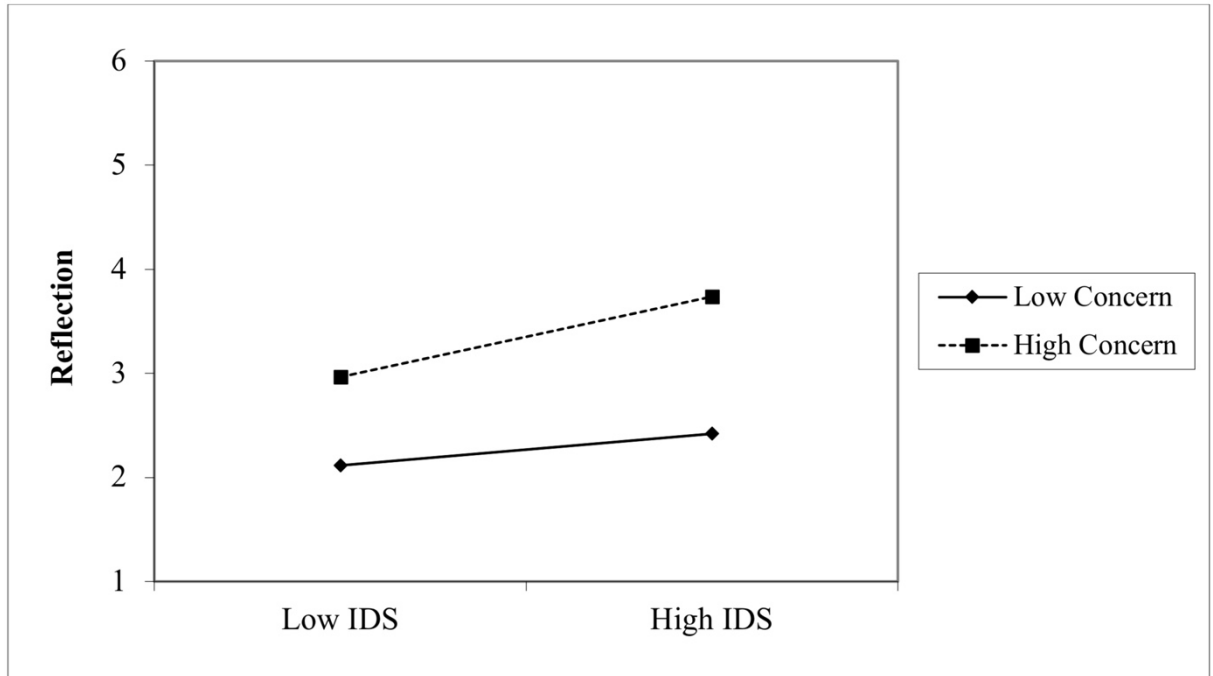


Figure 1.5. H3a) Interaction plot: Concern

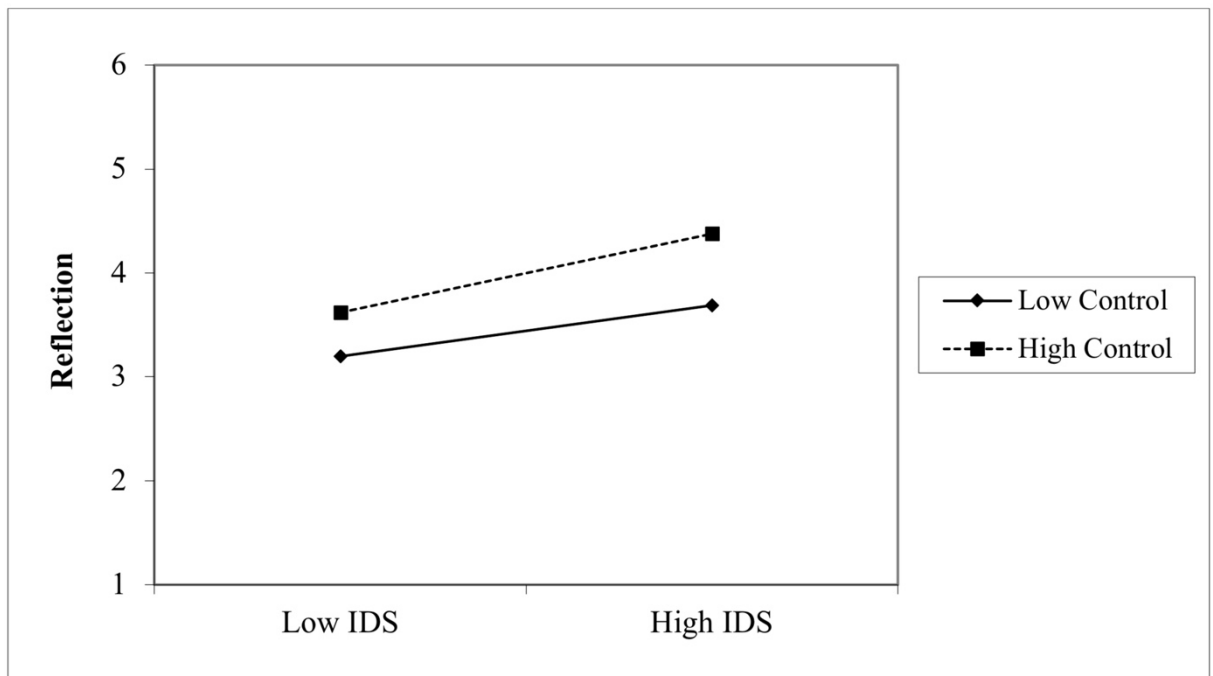


Figure 1.6. H3b) Interaction plot: Control

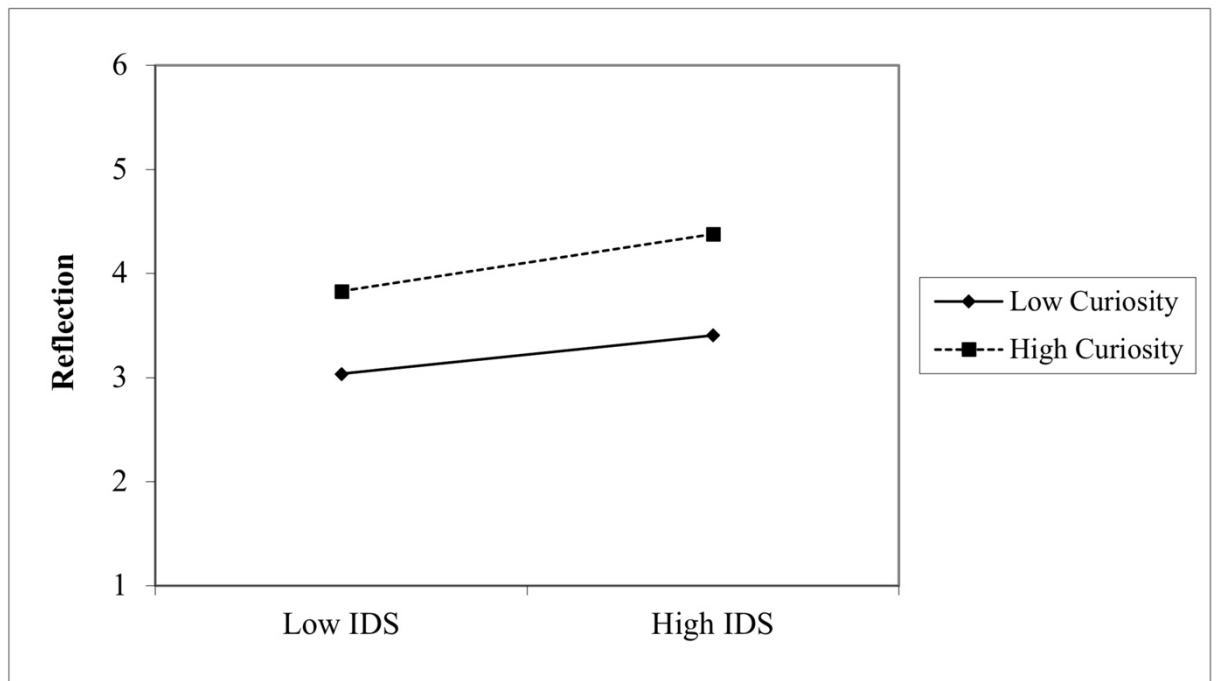


Figure 1.7. H3c) Interaction plot: Curiosity

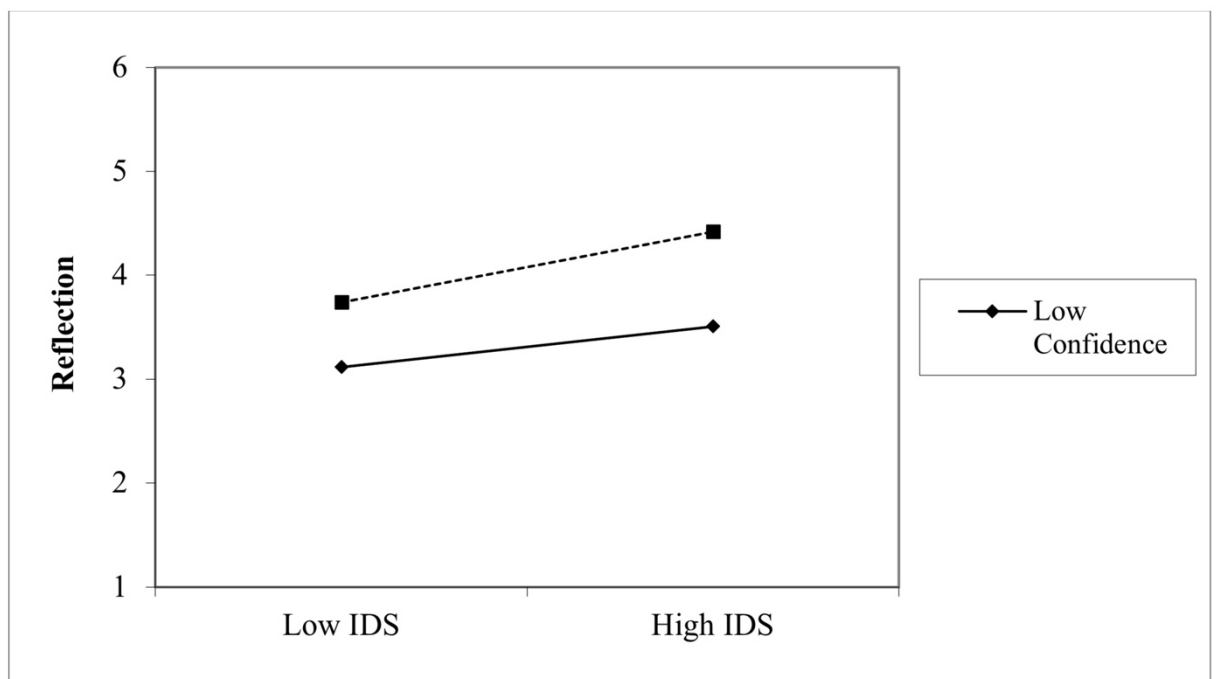


Figure 1.8. H3d) Interaction plot: Confidence

4.4. Meta-skills adaptability and identity

Nalis, I., Kubicek, B., & Korunka (under revision). Like a bridge? A review of adaptability and identity as meta-skills in challenging career circumstances. *Manuscript under revision for resubmission in Zeitschrift für Arbeits- und Organisationspsychologie.*

Like a bridge? A review of adaptability and identity as meta-skills in challenging career circumstances

Abstract: Our current labor market displays manifold crises with high unemployment rates and increasing dynamics in the work life. Adaptability and identity are meta-skills which enable the learning process necessary to overcome obstacles on the career path. The contribution of this review lies in the focus on the question of whether the meta-skills of career adaptability and identity can actually serve as a bridge over troubled waters for *everyone* in the working population. This review provides a conceptual model of a decent career that acknowledges challenging circumstances which are found in demographic differences (e.g., age, ethnicity, gender) or structural conditions (e.g., crisis economy) and the antecedents that are necessary to foster individual skills which serve toward various beneficial outcomes.

Keywords: adaptability, identity, meta-skills, career challenges, decent career

Introduction

Our current labor market displays manifold crises with high unemployment rates and increasing dynamics in the work life (Barley et al., 2017; Wang & Wanberg, 2017). These challenges in the labor market demand from individuals both: a heightened ability to deal with ambiguity to adapt and an increasing demand to develop an occupational identity which is not dependent to an occupation or organization (e.g., Cortellazzo et al., 2020; Hall, et al., 2018). According to the protean career concept (Hall, 2004; Hall et al. 2018), adaptability and identity are meta-skills which enable the learning process necessary to overcome obstacles on the career path.

However, these positive claims on adaptability and identity deserve closer inspection. What is particularly missing is the understanding of the potential of career adaptability and identity as meta-skills to deal with challenging career circumstances from the perspective of vulnerable populations. Therefore, we aim to unearth whether the positive assumptions towards adaptability and identity were also shown to apply under difficult conditions of career development.

A growing body of research shows how the meta-skills of adaptability and identity equip people with the ability to learn from past experiences and to develop new skills that enable to self-manage careers according to one's needs and goals (Gubler et al., 2014; Lo Presti & Pluviano, 2016; Negru-Subtirica et al., 2015). However, critical voices point to blind spots in careers research, mainly the overemphasis on agency (Forrier et al., 2018) while neglecting contextual constraints (Gunz et al., 2011). The awareness for barriers to career development is central in times of economic constraints, especially for individuals who experience marginalization and are vulnerable to unemployment (e.g., young people, Chui et al., 2020). This is of particular concern, as even small disadvantages can have a strong impact on individual career paths as shown in a recent review on demographic differences by Kostal and Wiernik (2017). One current approach which acknowledges structural barriers and individual competencies in the work life alike is to be found in the Psychology of Working Theory, PWT, and its conceptualization of decent work (Duffy et al., 2018; Duffy et al., 2016; Kenny et al., 2019). PWT could also serve as a perspective to understand career development under challenging circumstances.

The approach of this integrative review is to analyze studies on adaptability and identity with detail to structural conditions. This focus on challenging career contexts also marks the central distinction to earlier meta-analyses on the concepts of adaptability (e.g., Rudolph et al., 2017a, 2017b; Johnston, 2016) or reviews on identity (e.g., Miscenko & Day, 2016; Brown, 2015). For instance, a meta-analysis on adaptability based in Career Construction Theory (Rudolph et al., 2017a) revealed ambiguous results on the impact of demographic differences. Likewise, a review by Johnston (2016) lists a handful of articles which had shown that individual characteristics and demographic factors might contribute or hinder the development of career adaptability. Yet, a detailed analysis whether adaptability helps to build a decent career under challenging circumstances is missing. In regard to identity, a systematic review on identity and

identification at work by Miscenko and Day (2016) is to be found, however, therein the question of career development in challenging circumstances has not been examined.

There are three areas where this review makes an original contribution: Firstly, it provides the first overview of articles dealing with either or both of these meta-skills with reference to challenges as defined in Psychology of Working Theory, PWT: age, ethnicity, gender, income, migration, and unemployment (Duffy et al., 2016). The second contribution lies in the comparison and contrasting of whether either or both of the meta-skills had been examined as antecedents or outcomes in challenging career circumstances. Thirdly, in the development of a conceptual model that offers understanding of the role of adaptability and identity meta-skills for career development under challenging circumstances.

To summarize, this review aims at identification of antecedents and outcomes of career adaptability and identity meta-skills. Moreover, it aims to provide a conceptual model of a decent career that acknowledges challenging circumstances which are found in demographic differences (e.g., age, ethnicity, gender) or structural conditions (e.g., crisis economy) and the antecedents that are necessary to foster individual skills which serve toward various beneficial outcomes. Hence, the aim is to lay ground for future development of scales and interventions that allow individuals, organizations and societies to develop decent careers despite challenges. The contribution of this review lies in the focus on the question of whether adaptability and identity can actually serve as a bridge over troubled waters for *everyone* in the working population.

The main research questions are:

RQ 1: What are the challenging career circumstances in which adaptability and identity meta-skills have been examined?

RQ 2: Which antecedents and outcomes are described in the literature in regard to career adaptability and career identity as meta-skills?

RQ 3: How can adaptability and identity meta-skills foster a decent career?

Terms and definitions

Decent careers: New careers and decent work

The protean career has long been accepted as a central concept of “new careers” (e.g., Akkermans & Kubasch, 2017; Dries & Verbruggen, 2012) in our days of economic uncertainties where self-management seems a valuable strategy to cope with changing work environments. According to Hall et al. (2018), the protean career orientation is a must-have to achieve psychological success in turbulent times. Already early conceptualizations of the protean career describe the meta-skills of adaptability and identity to be crucial in order to thrive in unstable career environments (Hall & Mirvis, 1995; Hall, 2004). Furthermore, Hall (2004) defines freedom and growth as the core values of the protean career. Within a recent refinement of the protean career concept, Hall et al. (2018) identify three outcomes of protean career orientation and processes: subjective career success, objective career success and organizational commitment. However, Hall et al. (2018) point out that many people know about the possibilities of freedom and growth in careers of some, yet experience their personal work life as meaningless.

According to Duffy et al. (2016), people with the privilege of decent work can achieve fulfillment and wellbeing. As a consequence to a world of work where not everyone experiences this privilege, PWT was developed in regard to challenging career circumstances. Hence, PWT integrates experiences, barriers and potential for people without satisfactory access to financial and social capital in the understanding of work lives. Moreover, it explains career selection and fulfillment with a clear focus on marginalized individuals and groups who experience discrimination and lack of social and financial capital. Within PWT, decent work is the central construct and is supposed to lead to need satisfaction, work fulfillment and wellbeing.

Despite, the focus of PWT on marginalized groups, there are parallels to the conceptualization of the protean career and PWT in regard to definitions of success. Both, the protean career

concept as well as PWT extend objective measures of success to a subjective interpretation of achievements in the career. Therefore, PWT serve as a structuring lens for detecting the challenging circumstances under which career development takes place. This review aims to unearth the potential of adaptability and identity meta-skills for the development of a decent career for all individuals. This approach allows to complement the agentic focus of research into work and careers with structural aspects as it offers a view on career development that acknowledges structural barriers and individual competencies alike.

Adaptability and identity

Within the protean career concept, adaptability and identity are claimed to be meta-skills which need to be in balance (Gubler et al., 2014; Hall, 2004) and help individuals to overcome obstacles on career path. In a recent integrative review by Hall et al. (2018) adaptability is defined as an ability to change in response to instable conditions, whereas identity describes a clear sense of oneself and personal values and to enable value-oriented career development.

Apart from its conceptualization within the protean career (Hall et al., 2004), career adaptability has yielded an extensive body of research based on Career Construction Theory (CCT) by Mark L. Savickas (1997). One of the main contributions of Savickas' conceptualization lies in the replacement of the idea of career maturity with career adaptability (Savickas, 1997) as a response to the changing nature of career demands (Savickas & Guichard, 2016). According to CCT (Savickas & Porfeli, 2012), adaptability resources (concern, control, curiosity and confidence) predict agentic adaptive responses (e.g., career planning and decision making, career exploration). According to Akkermans and Kubasch (2017) in their review on trending topics in career research, adaptability describes central personal resources and competencies for career development. Correspondingly, adaptability was shown to allow for various beneficial adaptation results (Hirschi, 2012; Hirschi & Valero, 2015; Hirschi, et al., 2015; Rudolph et al. 2017a, 2017b). Furthermore, career satisfaction (Johnston, 2016), and resilience (Bimrose & Hearne, 2012) were shown as outcomes of career adaptability. Moreover, career adaptability is an integral antecedent in the PWT framework, where Duffy et al. (2016) point to the malleability of adaptability.

Identity is used by Hall et al. (2018) synonymously with identity-awareness, self-concept, self-image, or self-awareness. Identity produced research under the terms of career, work or vocational identity interchangeably. According to Ibarra (1999), identity is defined as a constellation of attributes that shape and are re-shaped constantly during our lives and by large parts by the work we conduct. Moreover, many conceptualizations define identity as a process where people constantly develop their “possible selves” (Ibarra & Barbulescu, 2010; Ibarra, 1999) in exchange with others (La Pointe, 2010). According to the review on trends in career research by Akkermans and Kubasch (2017), identity is mostly regarded in terms of decision making and experiences of forming vocational identity. Furthermore, career identity is often closely linked to research on calling. For instance, Ahn et al. (2017) underline claims by Berg et al. (2010) that calling is “inseparably intertwined” with questions of identity. In the realm of CCT, career identity is linked to success and supposed to be increased by greater availability of adaptability resources (Rudolph et al., 2017a).

Approach

The literature search strategy was aimed at the development of a conceptual understanding of the role of adaptability and identity meta-skills in dealing with challenging circumstances. Therefore, this review focuses on theoretical and empirical developments of the protean career concept (e.g., Hall et al., 2018; Gubler et al., 2014) and Psychology of Working Theory (Duffy et al., 2016). Regarding the time span of the covered literature, this review starts in 2007 for twofold reasons. The first reason is tied to the first publication explicitly dealing with adaptability and identity meta-skills from the perspective of the protean career in face of the challenge of unemployment by McArdle et al. (2007); a study which has since attracted many citations. Secondly, the years 2007/2008 mark the beginning of the global financial crisis, which led to an increase in unemployment rates and an insecure employment environment (Briscoe et al., 2012). Although the severe contextual shift caused by the financial crisis, certainly only translated to published research with delay, it can be assumed that it informed career research substantially.

The search was conducted in spring/summer 2020, using Web of Science databases and by hand search of google scholar data as well as data added manually by key word search of selected journals. Preceding the search, a list of keywords was classified: “career adaptability” and “career adapt-“, and “career identity”, “vocational identity” and “work identity”. The basis for the review is formed by original quantitative (cross- and longitudinal) and qualitative

studies, hence reviews and meta-analyses were excluded. Only peer-reviewed empirical studies published in English were integrated in the review.

In order to deepen the knowledge on the role of adaptability and identity, backward snowballing (i.e. references cited in the articles of interest) was applied. Thematic analysis, and cross checking of terms and concepts between authors, allowed to identify articles where samples vulnerable to challenges were part or whether challenges to career development were explicitly examined. Therefore, cohorts were firstly analyzed for criteria of age, education and position, which led to the exclusion of studies based on samples exclusively based on managerial or student samples. In a second round of analysis, the content of the articles were screened for challenges which were examined (e.g., crisis economy, longer phases of unemployment, challenges in relation to migration). This approach led to an exception in regard to a specific sub-set of student populations which were included if the student sample had been examined in the context of challenges for young people such as insecure future career prospects (Kenny et al., 2019), job insecurity and problems to enter the work force (e.g., Cortelazzo et al., 2020; Chui et al., 2020). Eventually, a set consisting of originally 106 articles dealing with adaptability and identity meta-skills, was narrowed down to 31 journal articles with respect to exclusion criteria of career challenges, hence managerial or student samples were excluded.

Results

The result section is divided into the sections for research questions 1) on articles dealing with either or both adaptability and identity in relation to challenging career circumstances, and 2) by the presentation of antecedents and outcomes of adaptability and identity. Followed by research question 3), the conceptual model of a decent career which was derived from in this review in reference to the concept of decent work, based in Psychology of Working Theory (Duffy et al., 2016).

In regard to the distribution of articles dealing with either/or both of the meta-skills, the majority of articles studied the meta-skills adaptability, with 22 out of 31 articles. Only nine articles featured research on career identity. One reason possibly lies in the existence of a scale for career adaptability, the C-AAS scale (Savickas & Porfeli, 2012) which has been translated and validated in many languages. In comparison, research on identity either used different scales (e.g., Identity Awareness Scale by Kossek et al., 1998), measured identity within the

conceptual frame of the protean career (e.g., Waters et al., 2013) or relied on qualitative research (e.g., Ibarra & Obodaru, 2016).

Challenging career circumstances

In the 31 journal articles which finally served for analysis, this review found challenges ranging from individual attributes such as age (e.g., the challenges for older workers as studied by Van der Horst et al., 2017) to structural barriers (e.g., high youth unemployment which poses a barrier to successful transitions from school to work, Urbanaviciute et al., 2016) and on a broad societal scale (e.g., crisis economy, Simosi et al., 2015). Furthermore, challenges were linked to ethnicity (e.g., Duffy et al., 2018), gender and social class as with reference to PWT (Duffy et al., 2016), precarious employment for low-skilled workers (e.g., Brown, 2016), migration (e.g., Wehrle et al., 2019), job loss and unemployment (e.g., Waters et al., 2013). Table 1 lists career challenges which have been examined in regard to adaptability and identity meta-skills and the respective authors of these studies.

INSERT TABLE 1

To summarize the challenging career circumstances in which adaptability and identity meta-skills have been examined the following observations occurred: age-related challenges showed as most prominently studied challenges and reflects the various challenges for career development in groups from young people entering a difficult labor market (e.g., Cortellazzo et al., 2020; Kenny et al., 2019) to career change related questions in mid-age (e.g., Brown et al., 2012) and older workers (e.g., Fassbender et al., 2019) concerning the challenges to sustain employability. Moreover, age was shown as a challenge also in regard to long-term risks linked to youth unemployment (e.g., Urbanaviciute et al., 2016). Several articles were dedicated to the challenges for sustaining employment for the ageing working population (e.g., Van der Horst et al., 2017).

Challenges related to career change, form the second most frequently studied phenomena, were adaptability and identity meta-skills help to overcome barriers. These changes were often-times related to questions of unemployment and employability (Forrier & De Cuyper, 2015) as shown in studies on voluntary and involuntary career transitions (e.g., Khapova et al., 2007), research involuntary changes Duffy et al., 2016) and a study on mid-career changes (Brown et al., 2015). Moreover, as shown by Duffy et al. (2016), people who were forced into transitions experienced context as the primary driver in their work lives; not agency.

Furthermore, adaptability and identity were examined in the contexts of crisis economy/recession, employability, ethnicity, gender, insecurity (career, job, professional insecurity), job loss/unemployment, low skilled work, migration and perceived barriers (job fit/perceived prospects/recent experience of significant events) and precarious work.

Antecedents of adaptability and identity meta-skills

The antecedents found in the literature were grouped according to emotional, cognitive and behavioral aspects. This distinction mirrors the portrayal of the constructs as found in the literature. Furthermore, it offers comparing and contrasting which is relevant for future research and development of measurement tools and counselling approaches aimed at career development. Table 2 displays articles which identified antecedents to adaptability and identity meta-skills in challenging career contexts.

INSERT TABLE 2

Behavioral antecedents were found in the literature on adaptability and identity skills in challenging career circumstances in a study by Brown et al. (2012) on the role of career-adaptabilities for mid-career changers based on CCTs career adapt-abilities framework. Behaviors such as learning through meaningful interactions at work allow adaptability to be subject for training. Moreover, Brown et al. (2012) showed that learning to adapt can be enabled through self-directedness and self-reflection.

From the perspective of cognitive antecedents, the propensity to learn and develop competencies were found by Brown et al. (2012) as predictors to adapt from challenging work conditions. Furthermore, the positive relationship between calling and employability was shown by Lysova et al. (2015) in their research of the role of calling for employability. Their results show that a sense of calling is related to adaptability as well as identity.

Emotional antecedents have been shown for instance by Ramos and Lopez (2018) in their study of career transitioners, where they found a positive relation between attachment security and career adaptability as predictors for subjective well-being. A study by Coetzee and Harry (2015) examined the relation of gender and hardiness as predictors of career adaptability among black call center agents, where they found gender related differences in that female gender significantly predicted career adaptability and high hardiness control also predicted higher adaptability. Moreover, self-esteem was shown as a predictor for career

adaptability by Rusu et al. (2015) in their examination of the relationships of implicit and explicit self-concepts in a young population in a crisis economy with high unemployment rates.

Outcomes of adaptability and identity meta-skills

The outcome variables are structured with reference to recent developments in the protean career concept (Hall et al., 2018) in regard to three different perspectives on success: subjective, objective success and organizational commitment. Moreover, this review proposes a fourth outcome dimension which concerns beneficial outcomes on a societal level. This societal level positions the decent career model in a broader context which bridges immediate career outcomes with a long-term and wide-scale perspective of the impact of careers on contextual factors. Hence, it proposes an interrelatedness between the contextual influences and challenges on individual career paths, as well as it acknowledges the impact of individual careers on the world of work and larger environmental questions.

Subjective career outcomes are gaining attention since first the conceptualizations of the protean career where psychological success was defined in contrast to objective career success measures. In recent years scales such as the subjective career success scale by Shockley et al. (2017) serve as instruments for research on outcomes of new careers. However, none of the studies that fit the scope of this review were based upon this operationalization of subjective success, but referred to other approximations to individual career goals. For instance, wellbeing was shown several times as an outcome to adaptability (Ramos & Lopez, 2018; Konstam et al., 2015; Maggiori et al., 2013) and to identity in a study by Briscoe et al. (2012). According to Praskova et al. (2015), career identity is an important marker for wellbeing. Furthermore, objective success was shown in regard to the increase of job offers and work goal progress (in the review by Hall et al., 2018). Moreover, Praskova et al. (2015) provided evidence for the relationship between career identity and employability which served as a career progress marker in a study on youth employability.

Next to success, organizational commitment was shown as an outcome variable, which recently attracts new attention, after several years of parallel developments of research on new careers and their demands of career self-management and organizational practice. For instance, Spurk et al. (2015) showed that perceived marketability increased with adaptability while also decreasing job insecurity. Adaptability and identity also seemed to serve individuals in times when organizational commitment is undermined for instance by job insecurity and downsizing.

To illustrate, Klehe et al. (2011) showed that career adaptability enabled career exploration, yet that exploration was not only beneficial for individuals who were thus able to find new work but also positive for organizations.

The fourth and novel outcome perspective of societal relevances refers to conceptualizations on the future of work and organizational psychology (e.g., Bal et al., 2019) and aims at the re-organization of work from an inclusive perspective with positive outcomes for individuals, organizations, society and the environment. One strand of societal relevance, can be found in research in the ageing workforce. For instance, research by Fasbender et al. (2019) examined the role of future occupational time perspective in older workers. Their study showed that the sector people work in plays a role of how many options seem still available. Furthermore, they underline that societal expectations of age norms can buffer career planning activities. In a time when an ageing work force is increasing, the role of adaptability and identity should also be understood from an integrative perspective where organizational interests and the intrinsic value of work for older workers should be regarded together (Bal & Doci, 2018). Furthermore, societal relevance of career outcomes can also be found in relation to wellbeing and previously examined the links between subjective wellbeing and a decrease in materialism and their impact on environmentally sustainable behavior (Brown & Kasser, 2005). In table 3 outcomes which have been found in the literature in regard to either/or adaptability and identity meta-skills can be found.

INSERT TABLE 3

A model of decent careers

One important issue not addressed by previous research is how the meta-skills of adaptability and identity can serve vulnerable populations in challenging circumstances in the development of what is termed by this review as a decent career. This novel model expands the view from decent work based in PWT (Duffy et al., 2016) to a perspective that spans the whole work life, thus it was termed the decent career model. From the review of antecedents and outcomes of adaptability and identity in challenging career circumstances, the model of the mediating effect adaptability and identity meta-skills as central pillars for a decent career was developed. Both of the meta-skills showed the potential to enable a decent career even under challenging circumstances. Hence, this framework allows for a first conceptualization of how these meta-

skills can mediate the relationship between certain behavioral, cognitive and emotional antecedents and outcomes of a career path under challenging circumstances.

The decent career model proposes a dynamic view on adaptability and identity, where the relationship between antecedents for multifaceted outcomes of individuals' decent careers and can be positively mediated by the meta-skills adaptability and identity. Moreover, the model proposes that the training and development of behavioral, cognitive and emotional antecedents allows the development of the two meta-skills and enables to foster decent careers. Hence, the decent careers model acknowledges the malleability of competencies and aims at establishing a link between adaptability and identity meta-skills and an integrative perspective of success, that entails individual, objective, organizational as well as societal outcomes. Furthermore, the model aims at enabling future research and practice to examine and strengthen the reunification between organizational career management practice and individual career self-management, while designing new ways of facing the challenges posed by economic changes and the ecological crises. Hence, to underpin the transformation of a perspective on careers, that is both sustainable for the majority of the working population and the larger economic and ecological context.

The decent career model proposed by this review captures emotional, cognitive and behavioral antecedents to the meta-skills adaptability and identity and outlines a four-dimensional perspective on outcomes. Hence, the aim is to lay ground for future development of scales and interventions that allow individuals, organizations and societies to develop decent careers despite challenges. To summarize, adaptability and identity have shown to serve as pillars that can help to build and maintain a decent career. Moreover, this model underlines the necessity to view both skills as malleable, hence the potential to strengthen individuals on their paths despite the manifold challenges they might encounter, is not a fixed a number but how to develop these skills as well as the four perspectives of outcomes of a decent career should be developed in a triologue between the individual, the employer and the societal perspective. The conceptual model of the decent career is outlined in figure 1 and shows the mediating role of adaptability and identity meta-skills in challenging career contexts in regard to antecedents and outcomes.

INSERT Fig. 1

Discussion, future research agenda and limitation

The goal of this paper lied in unearthing the mediating role of adaptability and identity meta-skills with challenging career circumstances for obtaining and maintaining decent careers. By unrolling the process in which adaptability and identity meta-skills can serve as a bridge over trouble waters, hence in challenging career circumstances it offers building blocks towards the development of a decent career. Thus, this review followed the call for a closer examination of structural conditions in research of contemporary careers (Bal & Dóci, 2018; Baruch & Vardi, 2015; Mayrhofer et al., 2016) in order to facilitate further research and to stimulate the transition to just work.

A central contribution of the decent career model lies in the proposition of four-fold career outcomes spanning subjective and objective success, organizational aspects and societal relevance. The endeavor to analyze previous work on adaptability and identity to master challenging circumstances, shall not be limited to modes to survive or strive, from the individual perspective. The aim was to expand the perspective of outcomes of work and careers from the individual frame even further than organizational horizons as questions about the role of decent careers for individuals are inseparably intertwined with social, societal but also environmental issues. Future research could combine for instance, careers research based in multi-dimensionals conceptualizations of success (Mayrhofer et al., 2016) with insights from eco-psychology grounded in self-determination theory of motivation (Brown & Kasser, 2005). It could be fruitful to further examine the role of decent careers for the environment, as the role of values has been shown to be related to the compatibility of psychological and ecological wellbeing (Brown & Kasser, 2005). For instance, research on self-determination theory and ecological psychology show negative relations between materialism and psychological wellbeing (Brown & Kasser, 2005; Dittmar et al., 2014; Twenge & Kasser, 2013).

Notwithstanding the individual abilities to self-manage careers and the societal impact of individual careers, the organizational perspective deserves further integration in future research of the development of career paths. According to Hall et al. (2018), especially the “protean paradox” merits attention: despite the protean orientation of self-directedness and values-orientation, it had been shown that organizational commitment can be enhanced through adaptability and identity meta-skills. Moreover, the development of a measuring scale for career identity on eye level with what is known about career adaptability would allow for substantial advancements in the understanding of mechanisms to strive in turbulent times for careers.

Another area that would deserve further exploration lies in the role of reference groups in career development. As described by Grote and Hall (2013), the role for career development of peers from the professional as well as the private realm is often underestimated. Although capital resources such as social capital have been mentioned in conceptual work on adaptability for instance by Hirschi (2012) and the relationship between the protean career orientation and work-life balance has been investigated by Drenzo et al. (2015), further understanding of the social network of individuals merit closer attention. Particularly, as it can be assumed that social networks and the role of non-work orientations (Hirschi et al., 2020) are essential in the development of a sustainable career (De Vos et al., 2018; Heslin et al., 2020).

Practical implications

The International Labor Organization describes decent work in regard to satisfactory compensation, safe working conditions, and protection against unemployment. Recently, the decent work scale (DWS) as measure for testing the PWT, has been tested and improved (e.g., Duffy et al., 2019). For instance, Dodd et al. (2019) recommend to further explore DWS within the context of career interventions in order to support social justice and extend career counseling issues beyond an individualistic perspective. A similar approach could be attempted for decent careers and their development throughout the life-span through the development of a scale to measure of a decent career. With reference to the development of a measure for subjective success as presented by Mayrhofer et al. (2016) a future scale for decent careers could distinguish between measures for achieved and aspired outcomes in regard to subjective and objective career success, organizational commitment and societal impact. This scale could then serve as basis for training development.

Summary

In sum this review showed that adaptability and identity meta-skills can serve as central pillars of a bridge that allows the development of a decent career even in challenging contexts.

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5. Appendix

5.1 Abstract in German (Zusammenfassung)

Der aktuelle Arbeitsmarkt spiegelt vielfältige Krisen wider, mit zunehmender Dynamik im Arbeitsleben und hohen Arbeitslosenquoten. Infolgedessen sind die Kontexte aus denen heraus Karrieren entwickelt werden, sowohl für Einzelpersonen als auch für Organisationen eine Herausforderung. Individuen müssen sich aufgrund fehlender Sicherheiten seitens der Arbeitgeber*innen die Gestaltung der eigenen Laufbahnen, losgelöst von organisationalen Strukturen, zunehmend selbst kümmern. Diese erhöhten Anforderungen an ein als Karriereselbstmanagement bezeichnetes Phänomen, erfordern die Verfügbarkeit und Nutzung vielfältiger Ressourcen. Nur durch unterstützende Quellen im Verhaltensrepertoire oder auch durch soziale, organisationale oder gesellschaftliche Ressourcen, sind Individuen in der Lage auf die regelmäßig eintretenden Schocks zu reagieren und Brücken auch über Brüche in Karrierewegen zu schlagen.

Diese Arbeit untersucht individuelle Ressourcen, um auf herausfordernde Bedingungen zu reagieren. In einem Buchartikel und Artikel 1, werden mittels qualitativer Forschung (biografische Interviews) Karrierepfade nachverfolgt, in denen Individuen äußerliche Veränderungen durch Shocks erlebt haben und eigene Weg im Umgang mit den veränderten Bedingungen ihrer Karrieregestaltung gefunden und im Zuge dieser extern auferlegten Veränderungen auch persönlich ihre berufliche Situation verändert haben. Artikel 2 präsentiert die Ergebnisse einer Querschnittsstudie aus einer repräsentativen Stichprobe zu Fragen der Intensivierung der Anforderungen in der Karriereentwicklung und beleuchtet die Rolle von Anpassungsfähigkeit als Ressource zur Entwicklung adäquater Antworten auf der Ebene von Reflexion und Verhalten, wie es im Career Crafting Konzept erfasst wurde. Der vierte Beitrag dieser kumulativen Dissertation bietet eine Literaturübersicht zu den kontextualen Herausforderungen, die bislang in der Erforschung der Meta-Fähigkeiten in der

Laufbahnentwicklung, Anpassungsfähigkeit und Identität, berücksichtigt wurden. Dieser Artikel bietet mittels eines konzeptuellen Modells einer menschenwürdigen Karriere eine Umschau über die bisher als förderlich erkannten Vorbedingungen in der Entwicklung der beiden Meta-Fähigkeiten und zu den Ergebnissen, die durch diese Fähigkeiten gestützt werden. Die wichtigsten Theorien und konzeptionellen Säulen dieser Arbeit sind das Protean Career Concept, das Framework für Sustainable Careers, die Career Construction Theory und die Psychology of Working Theory.

Durch die Beleuchtung der Schnittstelle zwischen strukturellen Bedingungen und selbstbestimmten Reaktionen soll ein Beitrag zum Verständnis und zur Gestaltung menschenwürdiger Karrieren heute und in der Zukunft geleistet werden. Diese Dissertation versucht Einblicke zu geben über Bedingungen und Potenziale des „Career Crafting“ in herausfordernden Zeiten zu geben, also des Machens der eigenen beruflichen Laufbahn – individuell, im Zusammenspiel, also auch kollaborativ und ko-kreativ, mit dem Umfeld.

5.2. Publications and Presentations

Peer-Reviewed Journal Articles

Nalis, I., Kubicek, B., & Korunka, C. (2021). From Shock to Shift—A Qualitative Analysis of Accounts in Mid-Career About Changes in the Career Path. *Frontiers in psychology*, 12, 507.

Manuscripts Submitted for Publication in Peer-Reviewed Journals

Nalis, I., Kubicek, B., & Korunka C. (revision submitted). Resources to respond – a Career Construction Theory Perspective on demands, adaptability and career crafting. *Revised manuscript submitted for publication in Career in Development Quarterly*.

Nalis, I., Kubicek, B., & Korunka (under revision). Like a bridge? A review of adaptability and identity as meta-skills in challenging career circumstances. *Manuscript under revision for resubmission in Zeitschrift für Arbeits- und Organisationspsychologie*.

Book Chapter

Nalis, I. (2017). Bridges over breaches: agency and meaning as resources for dealing with new career demands. In *Job Demands in a Changing World of Work* (pp. 65-90). Springer, Cham.

Conference Presentations

Nalis, I., Kubicek B., & Korunka C. (2016, July). *The crafting of personal careers in times of change. The protean career as a resource for career change(rs) in the light of self-determination and alienation*. Paper presented at Colloquium of the European Group of Organizational Studies (EGOS) Naples, Italy.

Nalis, I., Kubicek B., & Korunka C. (2016, September). *Bridges over breaches: Is the protean*

career a strategy to cope with demands of career development in times of change?

Paper presented at the Conference of the German Association of Psychologists, DGPS, Leipzig, Germany

Nalis, I., Kubicek B., & Korunka C. (2018, September) *Thinking and acting towards a sustainable career*. Paper presented at the Conference of the German Association of Psychologists, DGPS, Frankfurt, Germany

Nalis, I., Kubicek B., & Korunka C. (2019, May). *From shock to shift a qualitative case comparison of career changers*. Paper presented at the congress of the European Association of Work and Organizational Psychology, Torino, Italy

Nalis, I., Kubicek B., & Korunka C. (2020, February). *From shock to shift – a qualitative analysis of career changes in mid-career*. Paper presented at the Career Division Community Conference of the Academy of Management, CarCon, Vienna, Austria

Poster Presentation

Nalis, I., Kubicek B., & Korunka C. (2018, September) *Boundaries, Bridges and Benefits of Career Adaptability*. Poster presented at the Conference of the European Health and Occupational Psychology (EAOHP), Lisbon, Portugals

Invited talks, interviews

Die Seele auf der Waage – Big Data und Psychopolitik, Impulsvortrag, March 2nd 2017, Elevate Festival für Musik, Kunst und politischen Diskurs, Graz, Österreich.

Die Bedeutung des Networkings, Interview Rise Magazin von Uniport – Karrierenetzwerk der Universität Wien, Wintersemester, 2019/20, Vienna, Austria

Wie sieht die Karriere der Zukunft aus? Sprechstunde des DNA – Das Neue Arbeiten - Clubs Feb, 27th 2019, Vienna, Austria.

Human Nature – an invitation to a dance with ambivalence? Keynote Elevate Festival für Musik, Kunst und politischen Diskurs, March 5th 2020, Graz, Austria.

Stimmen der Zukunft. Markt der Zukunft. Teil einer Serie von Interviewserie mit

Expert*innen anlässlich des Ö1 Schwerpunkt Reparatur der Zukunft gemeinsam mit dem Innovationsfestival Markt der Zukunft Sept 11th and 12, 2020, Graz, Austria.

Tanz die Ambiguitätstoleranz – Ein sperriger Fachbegriff für eine Kernkompetenz in

Krisenzeiten. Gastbeitrag in Impulse für Wissens- und Gedankenaustausch, Strategie Austria, November, 2020, Wien, Austria

Neue Perspektiven, Interview im Rahmen der Coverstory des Magazin Rise von Uniport –

Karrierenetzwerk der Universität Wien, Sommersemester 2021, Vienna Austria

5.3. Curriculum Vitae

After completing her master's degree in 2006, which focused on work and organizational, economic and social psychology, she spent 10 years working as a strategist in brand, campaign and organizational development. She then reentered academia via a uni:docs research grant at the University of Vienna. Her former employers include Ogilvy & Mather, Vienna; Trendbüro, Hamburg; and Jung von Matt, Hamburg and Vienna. Over time, she developed a special interest in issues of social innovation and transformation, as well as with questions concerning the future of work and careers.

Since 2015, she has dedicated the majority of her working time to researching and teaching at the University of Vienna. Calls to serve in political administration for the Republic of Austria under the Minister of Culture, Thomas Drozda, and the Vienna City Councilor for Culture and Science in 2017, Veronica Kaup-Hasler in 2018, allowed her to advance her profile as an advisor between the public and the private sector in parallel to her dissertational research project. She serves regularly on juries in art and science. Recently, she became a member of the Scientific Advisory Board of the City of Vienna (2020–21).

Since 2006, she has initiated and co-developed several projects at the interface of art, civil society, economy, politics and technology. Amongst others, in 2006 she founded the Viennabiennale for fine arts. She is co-initiator of the “Zam” initiative for social cohesion and positive visions for the future via art. Currently, she is an advisor for the Vienna Research and Technology Fund on questions related to the Digital Humanism initiative. As part of the team of the architecture/design/research platform *mostlikely* she was selected for exhibition at the Viennabiennale for Change 2021 with the common space city model and a concept on circular design. She serves as an honorary board member of the association GIN for community integration and normalization of people with disabilities. She is also an honorary board member of the Digital Humanism Association.