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Tales of the unexpected: Integrating career shocks in the contemporary careers literature

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Orientation: This article addresses the interplay between individual agency and contextual factors in contemporary career development processes. In light of the prominence of the former in the contemporary scholarly debate, we present a case for a more comprehensive approach by heeding the latter as well.

Research purpose: The main aim of this article was to provide a definition and conceptualisation of career shocks, as well as an agenda for future research on this topic.

Motivation for the study: Most of the contemporary careers literature has overemphasised the role of individual agency in career development. While certainly important, we argue that we also need to address the role of context – in this case, career shocks – in order to gain a fuller appreciation of career development processes.

Main conclusions and implications: We provide a definition of career shocks based on the existing literature related to chance events and turnover. In addition, we provide an overview of attributes of career shocks, potentially valuable theoretical perspectives and key issues for future research.

Contribution: This article brings together several existing streams of literature related to career shocks and provides an integrative definition and conceptualisation. We hope that this will ignite future research on an important but often overlooked topic.

Introduction

The classical literature on careers emphasised the role of both the organisation and the individual in planning and managing one's career (e.g. Greenhaus, Callanan & Godshalk, 2010; Lent, Brown, & Hackett, 1994; Schein, 1978; Sonnenfeld & Peiperl, 1988). However, with the advent of global hyper-competitiveness and organisational restructuring in the 1980s, the image of large stable firms offering lifetime employment and predictable career paths was no longer sustainable (Arthur & Rousseau, 1996). These changes in the labour market, and an associated withdrawal of support for career development in many organisations (Michaels, Handfield-Jones, & Axelrod, 2001), compelled career scholars to find new ways to think about careers. As a result, several 'new career' paradigms started to emerge in the 1990s, such as the protean career, which denotes a career that is self-determined, driven by personal values, and serving the whole person, family and life purpose (Hall, 2004), and the boundaryless career, which can be characterised as careers that involve opportunities that go beyond a single employer and in which there is greater independence from traditional organisational career arrangements (Arthur, Khapova, & Wilderom, 2005). The common denominator in these theoretical perspectives is that individual agency and ownership of one's career have become the focus of the academic discourse on careers. For example, both social cognitive career theory (Lent et al., 1994) and career construction theory (Savickas, 2005) – two of the most frequently cited career theories in recent years – are premised on the notion of preparing for decision-making and acting upon those preparations via goal-directed behaviours. Empirical research has closely followed this trend, as evidenced by an emphasis on topics such as career self-management (King, 2004), proactive career behaviours (De Vos, De Clippeleer, & Dewilde, 2009), career crafting (Akkermans & Tims, 2017) and employability (Forrier, Verbruggen, & De Cuyper, 2015; Van der Heijde & Van der Heijden, 2006). Indeed, a recent review of papers published between 2012 and 2016 in four leading career journals showed that career decision-making, career mobility, career capital, employability and proactive career behaviours are among the most popular topics in the recent careers literature (Akkermans & Kubasch, 2017). All of these closely connected areas have in common an underlying notion of individual ownership, control and direction as the basis for career development, and ultimately, career success. Given the fundamental changes that have taken place on the labour market in the

past decades – which include more flexibility and complexity (Vuori, Toppinen-Tanner, & Mutanen, 2012) – it is indeed crucial for individuals to manage their own career, to gain the necessary career capital to do so and to become and remain employable by means of deliberate career decision-making.

This agentic career perspective provides an optimistic and encouraging take on the management of careers. Released from the bounds of organisational hierarchies and predetermined career paths, individuals are seen to possess the 'free will' to master their own fates (cf. Baer, Kaufman, & Baumeister, 2008) in the face of an otherwise complex and uncertain world. However, a risk of this dominant theoretical perspective is that it assumes an unrealistic level of foresight, planning ability and control over the course and development of one's career that fails to provide a realistic explanation of the way people's careers actually evolve (cf. Forrier, Sels & Stynen, 2009). Indeed, much like the neo-traditional models of economic man, the contemporary career paradigm sets an almost impossibly rational standard against which to judge one's own career behaviour. If, instead, we subscribe to Lewin's (1936) classical view of behaviour as a function of person and environment, it follows that we should consider forces outside the individual's direct control as a determinant of that person's decisions and outcomes. What current models lack is an account of the role of unplanned or unexpected external events and how they impact the individual's career trajectory. A model that fails to capture this important part of an individual's lived experience provides an incomplete and unrealistic description of career processes. Therefore, we believe that scholars need to devote increased attention to the role of context and chance events in shaping individual careers.

The definition and conceptualisation of career shocks that we develop in this article is meant to augment current models of career management prevalent in the extant literature. Our goal is to supplement rather than replace existing theoretical models that are exclusively based on an agentic or self-management-based perspective. By incorporating this important aspect of many, if not most, people's career experiences, we hope to correct a view of careers that is at times overly rational and deterministic, yielding a perspective that is theoretically richer and promises to provide greater understanding of individual career management and development. To accomplish this, we draw upon certain older perspectives on career development as well as more recent empirical evidence to provide a definition of career shocks, its main dimensions and its potential impact on key career outcomes. The contributions of this article are twofold. First, we provide a conceptualisation of career shocks in which we delineate the nature of the construct and present several key dimensions that may influence the impact of career shocks on individual career development and career outcomes. Second, we provide a research agenda in which we stipulate ways of further integrating career shocks in the scholarly debate on career development. Taken together, we aim to inspire career researchers, as well as researchers in related fields, such as organisational behaviour, industrial and organisational psychology and human resource management, to reflect on the role that shocks may have in individual career development, and to include career shocks in their future research as a means to obtain actionable insight *vis-à-vis* career development and management.

In the pages that follow, we (1) show that events played a much more central role in earlier career theorising, (2) briefly describe underlying theories that might help to understand the impact of career shocks, (3) discuss the range and types of career shocks and the types of career behaviours they might influence and (4) explore problems and prospects for future work on this theoretical perspective.

The role of career shocks in career development

Major events that transpire in people's lives have a nontrivial impact on the career paths of many people (Hirschi, 2010). These events are oftentimes unexpected, meaning either that they cannot be anticipated and proactively acted upon or, even when anticipated, the effects of the event are not anticipated. Such events have been called chance events (Bright, Pryor, & Harpham, 2005), serendipity (Betsworth & Hansen, 1996), happenstance (Miller, 1983) and, most recently, career shocks (Seibert, Kraimer, Holtom, & Pierotti, 2013). Examples of these events include unexpectedly losing one's job or a close relative passing away– as examples of negative shocks – or receiving an unexpected promotion or receiving an award – as examples of positive shocks. Both the Chaos Theory of Careers (Bright & Pryor, 2005) and Happenstance Learning Theory (Krumboltz, 2009) have highlighted the importance of such major unexpected career events, and some empirical work (e.g. Hirschi, 2010; Hirschi & Valero, 2017; Seibert et al., 2013) has followed suit. However, the literature on career shocks is still very scarce. To illustrate, the aforementioned review of Akkermans and Kubasch (2017) identified virtually no research on such career shocks and chance events and explicitly called for more research on this important topic. In sum, it is clear that the vast majority of recent career research has focused on the 'makeable career' and has thereby – often implicitly – disregarded the major impact that career shocks may have on individual career trajectories.

We argue that in order to better understand contemporary career processes, it is crucial to integrate career shocks in the scholarly debate on career development. Although such chance events had a relatively dominant position in this debate several decades ago (e.g. Hart, Reyner, & Christensen, 1971; Miller, 1983; Roe & Baruch, 1967), interest in such occurrences appears to have waned with the emergence of the boundaryless and protean career paradigms (Briscoe & Hall, 2006). However, several studies have shown that the majority of individuals experience career shocks and that these shocks may substantially alter career paths (Bright et al., 2005; Scott & Hatalla, 1990; Williams et al., 1998).

Shocks, therefore, likely represent a major antecedent of career development episodes, and how one reacts to these events may be an important determinant of the level of one's career success. In addition, recent theorising on sustainable career development (De Vos & Van der Heijden, 2015) emphasises that contemporary careers unfold over time, in different social spaces, guided by agency and meaningfulness. This perspective allows for the incorporation of career shocks by defining them in terms of structural and contextual factors that are subsumed in the dimensions of time and social space. In this vein, it is interesting to note that Arthur, Hall and Lawrence's (1989) seminal definition of the career as 'the *evolving* sequence of a person's work experiences over time' (p. 8) is oftentimes misquoted as 'the *unfolding* sequence of a person's work experiences over time'. Although the difference may appear to be trivial, the former seems to allow for substantial interaction with the environment and the impact of chance events, while the latter presents the career as something that is virtually teleological, with an internal logic only waiting to be revealed.

As argued earlier, the role of career shocks in career development has long been acknowledged. For example, Roe and Baruch (1967) already called for research that would examine the extent to which one's career could be controlled by the individual. Similarly, Miller (1983) underlined the importance of happenstance and started his paper with his own example of how a career shock impacted his career choices: He met a counsellor who inspired him and in the end chose to follow that career path. Since those early days, several papers have been published that further emphasise the important role of career shocks, such as Scott and Hatalla's (1990) work on chance and contingency factors, Williams et al.'s (1998) work on chance events and identity formation among women, Rojewski's (1999) work on career shocks among individuals with disabilities and Guindon and Hanna's (2002) work on synchronicity. Although their specific focus varies, each one of these papers emphasises the idea that career development is about much more than individual agency.

Several recent studies on career shocks are in line with this premise. For example, Hirschi (2010) showed that career shocks appear to play an important role during the school-to-work transition of young adults. Specifically, he found that the majority of study participants experienced such shocks, and that they were significantly related to their subjective career success. Furthermore, Seibert et al. (2013) examined whether career shocks might impact employees' choice of pursuing graduate education. They found strong support for the impact of both positive and negative career shocks, for example, that a mentor who suddenly left would increase the odds of pursuing postgraduate education, whereas a negative organisational change would reduce those odds. Other examples of recent work on career shocks include that of career shocks among academics (Greco, Kraimer, Seibert, and Sargent, 2015; Petersen, Riccaboni, Stanley, & Pammolli, 2012), and Hirschi and Valerio's (2017) research on the relationship between career shocks and career decidedness.

As mentioned in the introduction of this article, it seems that studies on career shocks have been on the decline ever since the rise of the 'new career' paradigms, which emphasise individual agency as the key driver of career success. However, we argue that now, more than ever, research on career shocks is critical to understanding the processes underlying contemporary career development. First, the majority of recent career-related work has argued that career development is becoming more complex, more dynamic, more flexible and more unpredictable (e.g. Baruch, 2004; Vuori et al., 2012). Indeed, the labour market has been significantly changing, characterised by an increase in temporary, flexible and 'gig' employment types (Kalleberg & Marsden, 2015), which all seem to reduce employment security and predictability. Related to this, Frey and Osborne (2017) estimate that within the next decade or two decades, 47% of US occupations are at risk of being automated, which also has clear career implications for incumbents of those occupations. Because of this increasing complexity and unpredictability of contemporary careers, it is increasingly likely that they will be accompanied by an increase in seemingly unpredictable events. To illustrate, the worldwide economic crisis that started around 2012 resulted in major increases in reorganisations, lay-offs and unemployment, each one of which significantly impacted many peoples' career paths. Thus, although the heart of the recent career literature seems to have 'forgotten' about career shocks, we would argue that they are actually more relevant than ever.

Second, an increasing number of scholars have called for a revival of research on the context in which careers evolve. Gunz, Mayrhofer and Tolbert (2011), Inkson, Gunz, Ganesh and Roper (2012), King, Burke and Pemberton (2005), Rodrigues and Guest (2010) and Zeitz, Blau and Fertig (2009) have all stressed that in only considering agency-related factors, our understanding of careers will be incomplete, and they underlined the importance of incorporating context in career research. Career shocks can be considered such a contextual factor, as they typically occur outside of the individual's control and/or are – at least partially – caused by external factors. Hence, as a means to redress the role of context into career studies, investigating the role of career shocks could be an important next step. Taken together, it is clear that in order to gain a more complete understanding of contemporary career development, career shocks need to be included in the scholarly debate. In order to fully understand the complexities of contemporary career development, we need to study the interplay between agency and context, thereby acknowledging that both are crucial aspects in individuals' evolving careers.

Now that we have argued for the inclusion of career shocks in the scholarly debate on career development, the next step is to elucidate *how* this could be achieved. To this end, we will present a conceptualisation of the dimensions along which career shocks can be understood, along with several possible theoretical frameworks, and the link of career shocks to key career outcomes.

Building a conceptual framework of career shocks

Defining career shocks

Two streams of the literature provide a foundation for research on career shocks: (1) the literature on career chance events and (2) the literature on shocks and turnover. The former is firmly grounded within the careers literature, whereas the latter is mostly embedded within the field of organisational behaviour. In scrutinising the definitions of chance events and shocks, several elements of what career shocks are come to the fore.

First, the notion that shocks activate people to actively think about their career is fundamental to the definition of career shock. For example, Lee and Mitchell (1994) note that shocks 'initiate psychological analyses' (p. 51), and Seibert et al. (2013) mention that shocks 'trigger deliberation' (p. 172). In addition, and building on the idea that shocks initiate a deliberate thought process, career shocks can potentially lead to changes in behaviour and thereby have an impact on one's career path. To illustrate, Rojewski (1999), Holtom, Mitchell, Lee and Inderrieden (2005) and Seibert et al. (2013) all underscore the potential link between the occurrence of a career shock and a subsequent behaviour that changes the course of one's career.

Second, although it is not explicitly mentioned in the existing work on chance events and shocks, both literatures seem to agree that career shocks are contextual antecedents of career development that are, at least to some degree, outside of the individual's control in terms of their occurrence (e.g. Rojewski, 1999). Thus, even though a career shock may be expected to some degree, there is still a certain level of – perceived or actual – lack of control over the shock and its effects. For example, someone might be informed a few months beforehand that their contract will not be extended (i.e. relatively predictable) yet they cannot control the actual event (i.e. they will lose their job because of someone else's decision) and do not know what the ultimate impact of the event will be. As another example, even though having a child might be planned and wished for (i.e. there is usually a deliberate expectation of wanting to have a child), the actual potential effects of this shock event are outside of the sphere of control of the individual and may have consequences not fully anticipated (e.g. giving birth to the baby could cause health issues for the child or mother). Hence, a key characteristic of career shocks is that their occurrence and consequences are not fully under the control of the focal individual, thereby adding to the notion that career shocks are about more than individual agency alone.

Third, career shocks can vary in the degree to which they are unexpected versus expected. Although most of the literature on chance events emphasises the unpredictable nature of such events (e.g. Hirschi, 2010; Krumboltz, 2009; Rojewski, 1999), the literature on shocks proposes that such events can differ in the degree to which they are unexpected (e.g. Holtom et al., 2005). Indeed, although for some major events, the occurrence itself will be unexpected (e.g. losing a loved one, being laid off from a job), for other events, the occurrence may be predictable yet the effects may still be shocking (e.g. having a child, having one's contract terminated). Hence, although career shocks are chance events by definition, they do differ in terms of the degree of unexpectedness. Consequently, the extent to which a career shock is unexpected in terms of occurrence and effect is likely to have a major impact on the effect of a particular shock.

Finally, both the literature on chance events and shocks agree that career shocks can be either positively or negatively valenced (e.g. Holtom et al., 2005), although some studies do not explicitly make a statement about this (e.g. Krumboltz, 2009). In this light, positively valenced career shocks – such as an unexpected promotion or a desired pregnancy – would be events that may positively impact one's career, whereas negatively valenced career shocks – such as a major reorganisation or the loss of a loved one – are likely to negatively impact one's career. Seibert et al. (2013) indeed showed that a distinction can be made between positive and negative career shocks, and that they have differential even if not always predictable effects on career outcomes.

Based on the above four core characteristics of career shocks, and in an attempt to bring together the literatures on chance events and shocks, we propose the following definition of a career shock:

> A career shock is a disruptive and extraordinary event that is, at least to some degree, caused by factors outside the focal individual's control and that triggers a deliberate thought process concerning one's career. The occurrence of a career shock can vary in terms of predictability, and can be either positively or negatively valenced.

Below, we will expand on this definition by highlighting a number of dimensions that we argue are important to take into account when studying career shocks.

Attributes and differential impact of career shocks

Given the heterogeneity inherent in the shocks that different people may experience over the course of their careers, below we outline a number of attributes that may be used to conceptualise, structure and investigate the similarities and differences between these shocks. Although this list of attributes is unlikely to be exhaustive, we present it here in hopes of facilitating the evidence-based building of a typology of career shocks that may then be used as a basis for measure development. We start this discussion with the attributes implied by our definition of shocks (i.e. frequency, controllability, predictability and valence) before moving on to a few other attributes that may be used to differentiate between types of shocks and their differential impact on career outcomes.

A first important attribute of career shocks is *frequency*. We defined shocks as relatively infrequent and extraordinary

events, because habituation to frequent events is likely to inhibit the deliberate thought process concerning one's career that is a core characteristic of our definition of shocks. Thus, at their core, career shocks have a relatively low base rate of occurrence. At the same time, we recognise that some shocks (e.g. being sexually harassed at work) may occur more frequently than others (e.g. being displaced from one's home country because of a war or environmental disaster), and that this frequency may moderate the impact of the shock on career outcomes. In a study of life satisfaction, Luhmann and Eid (2009) showed differential patterns of life satisfaction for different repeated life events, where serial unemployment was associated with sensitisation (exhibited in cumulative decreases in life satisfaction across instances), and serial divorce was associated with adaption (exhibited in higher life satisfaction at the second divorce as compared with the first). In addition to such differential patterns, in the career realm, it may also be interesting to examine to what extent repeated shocks may interact to pass a threshold above which the accumulation of shocks starts instigating deliberation and, ultimately, career consequences. For example, within the psychological contract literature, Rigotti (2009) has shown that threshold models appear to account for significant variance in attitudinal outcomes, and he concludes that employees may ignore breaches up to a point where 'a "kick in" of responses seems to take place when a threshold is reached' (p. 458).

As a second attribute of career shocks, Holtom et al. (2005) refer to the foreseeability – ranging from expected to unexpected – of career shocks. We go one step further and distinguish between the *predictability* and *controllability* of careers shocks. Predictability and controllability are related, yet different in the sense that some shocks, such as being laid off, may be predictable yet uncontrollable, whereas other shocks, such as breaking one's leg, may be unpredictable yet controllable. The difference between these attributes thus resides mainly in the time at which the individual is likely or able to engage in a deliberate thought process and thus initiate action regarding the consequences of the shock to their career. Thus, we argue that the degree to which a shock is predictable might have a differential impact on career outcomes compared to the degree to which a shock is controllable. Furthermore, and following from the above, predictability and controllability may interact in bringing about important career outcomes. Initial evidence for this proposition is provided by Wood et al. (2015) who, using functional magnetic resonance imaging (fMRI), showed that threat predictability and controllability interact to affect brain activity involved in emotion regulation and resilience to stress. Indeed, it might especially be the interaction between the degree of predictability and controllability that determines the impact on career outcomes, for example, in a situation of being laid off: especially when both predictability and controllability of this event are low, this would likely result in negative career outcomes. However, when this event is more predictable (e.g. being notified in advance) and controllable (e.g. there is an excellent outplacement programme), the negative effects may be diminished through the aforementioned emotional and stress-related mechanisms. In sum, the predictability and controllability attributes have a clear bearing on individual agency in mitigating the consequences of career shocks, and insofar as the career shock that an individual encounters is more unpredictable and uncontrollable, the agentic perspective that was discussed earlier is unlikely to provide an adequate and accurate account of the consequences of the career shock to the career outcomes of that individual.

As a third key attribute of shocks, *valence* is likely to be commensurately related to career outcomes, so that the more positively valenced a career shock is, the more positive the career outcomes of that shock will be, and vice versa. Thus, the impact of a career shock is likely to differ according to how strongly a person experiences that shock, for example, two persons receiving an unexpected promotion may differ significantly in terms of how much they will engage in career deliberation and behavioural change. In operationally defining the valence of career shocks, we need to be mindful that it is the experienced valence of the shock to the individual itself that determines its categorisation, and not the degree to which the event has positive or negative consequences for the individual career or the organisation in which the individual is employed. Thus, having twins may well be experienced as something very positive, while it may turn out to be extremely detrimental to one's career development. In this sense, having twins would need to be classified as a *positive* career shock, because the experience of the shock is accompanied by positive emotions, even if the ultimate career outcomes may be positive or negative. Furthermore, it should be noted that the valence of career shocks can be more or less intense and that more intensely valenced career shocks are likely to exhibit stronger relationships with career decisions and outcomes. Finally, Holtom et al. (2005) have suggested that positively and negatively valenced career shocks may combine to form a neutral composite. This would indicate that we should not examine career shocks in isolation, but rather look at series of career shocks and examine their overall impact on career outcomes. Interestingly, Morrell, Loan-Clarke and Wilkinson (2004) hypothesised and found support for the notion that shocks that are expected are more likely to be positive and personal, whereas shocks that are negative are more likely to be work-related.

A fourth important attribute would be *duration*. For this aspect, we can distinguish between the duration of the shock event itself (in the sense that an episode of illness is likely to take longer than receiving a promotion), and the duration of the proximal and distal consequences of that event (in the sense that coming to terms with the consequences of a lay-off may take longer than coming to terms with the consequences of being hired). Whatever the case may be, all else held constant, it would seem that shocks that are longer in duration will have more severe consequences. Of course, similar to what we mentioned in terms of predictability and controllability, there would be potential interactions with other shock attributes. For example, a very short but highly intense shock might have a stronger impact than a long but not very disruptive shock. Similarly, the interplay between

frequency and duration might be important, as long shocks that also occur on a frequent basis might be especially impactful on career outcomes.

Fifth and finally, we argue that the locus or *source* of the shock is an important attribute (cf. Morrell et al., 2004). The source might, for example, be interpersonal (e.g. sexual harassment or discrimination), family-related (e.g. pregnancy, divorce, death, illness), organisational (e.g. mass lay-offs), environmental (natural disaster) or geopolitical (e.g. war). To illustrate, Holtom et al. (2005) found that personal and organisational career shocks are roughly equally prevalent. Investigating the locus of the shock may not only be relevant to determining the level of analysis implied by that shock but also the resources that key stakeholders (such as organisations or governmental institutions) are willing to avail to addressing the consequences of that shock (insofar as that is called for). That is, depending on whether a shock is interpersonal, organisational, environmental or geopolitical, the shock could affect single individuals or entire populations. Relatedly, shocks may be classified as being generic (in the sense that they could potentially affect any employee) or context- or population-specific. Examples of the latter would be women getting pregnant or refugees being displaced from their home countries.

As discussed above, (the interactions between) these dimensions may be used in hypothesis development *vis-à-vis* important career outcomes. In this vein, it is interesting to note that Morrell et al. (2004), on the basis of a *k*-means cluster analysis, identified two clusters of shock attributes, where shocks in the first cluster were found to be more expected, positive, personal, specific and unavoidable as compared with shocks in the second cluster. Studying such interactions would seem to be a key activity to better understand the mechanisms underlying chance events and their impact on career development.

Theoretical frameworks for studying career shocks

Several theoretical perspectives exist in the literature that have been or could be used to scaffold our understanding of the impact of chance events and shocks. The ones we mention below are not an exhaustive list but rather an overview of several promising perspectives that have either already been directly linked to career shocks, or seem highly relevant.

The first one is Image Theory (Beach, 1990). Beach proposed a broad descriptive theory of decision-making that rejects many of the unrealistic assumptions of neo-classical decision theory as manifest in the subjective expected utility model (Beach, 1990). According to image theory, individuals hold three distinct images or schematic knowledge structures that organise (1) their ideas about their values and ideals (the value image), (2) the goals or ideal future state they wish to achieve (the trajectory image) and (3) their understanding of the way specific strategies and tactics will help them achieve their chosen ends (the strategic image). The theory further states that individuals rarely engage in utility maximising calculations to choose optimal decision alternatives. Instead, decision-makers rapidly screen alternatives by comparing them to their existing images, rejecting those that violate aspects of the images they hold. Further, individuals are not the active optimisers as portrayed in neo-classical models. Rather, people tend to hold to the *status quo*, pursuing their existing goals with their current plans unless new information raises serious doubts about the ability of those plans to produce the desired level of progress towards the end states envisioned in the trajectory image. The decision to retain or reject the current goal attainment strategy, and thus move into the evaluation of new alternative strategies, is known as the progress decision (Beach, 1990). Image Theory offers important principles to understand the effects that career shocks can have on individual career development. Most notably, a career shock is a disruptive event that triggers deliberate thought processes and can subsequently influence behaviour. As such, a shock is likely to have an impact on the existing image that a person has of their ideals, goals and strategies. This could lead to adaptations of those images, and ultimately to significant changes in one's career path. Although Image Theory tells us much about the thought process potentially leading to a change in career paths, the theory has less to say about the factors that cause decision-makers to engage in the kind of effortful information processing necessary to make progress evaluations (Beach, 1993).

A second relevant theoretical perspective is the work that Lee and Mitchell (1994) carried out in developing the unfolding model of turnover, which borrows a number of ideas from Image Theory. They view turnover as a decision process and describe four (Lee & Mitchell, 1994) or five (Lee, Mitchell, Wise, & Fireman, 1996) distinct decision processes or paths to turnover. Of particular interest here is their introduction of the concept of a *shock* which they define as '… a very distinguishable event that *jars* employees towards deliberate judgements about their jobs … (Lee & Mitchell, 1994, p. 60)'. According to this model, the defining characteristic of a shock is that it demands the attention of the individual and leads them to think about the implications the event has for the likelihood that their current plans (i.e. the strategic image) will achieve their current work or career goals (i.e. the trajectory image) in a manner consistent with her values and ideals (i.e. the value image). This work shows that shocks are important in that they precede turnover in three of the five turnover paths identified by Lee at al. (1996).

Third, event system theory (EST), recently developed by Morgeson, Mitchell and Liu (2015), provides a more elaborate theoretical framework for the systematic study of career shocks. While EST is meant as a generic or domain-free theory, it provides a number of key concepts valuable to understanding the role of career shocks in career development processes. In contrast to many approaches in the social sciences that focus on relatively enduring or stable features of entities such as individuals, teams, organisations or environments, EST focuses on non-routine and relatively transient events. According to Morgeson et al. (2015), *events* are observable

actions or circumstances that are external to the perceiver and part of the context (Johns, 2006). Further, events occur when distinct entities or their actions interact (Allport, 1967), and events are bounded in space and time. Events influence entities by bringing about changes in the features (e.g. individual attitudes; collective norms), behaviour (e.g. turnover, organisational routines) or subsequent events affecting entities. The primary proposition of EST focuses on the characteristics of events that make them salient and therefore likely to impact entities. The key characteristics of impactful or strong events are novelty, discontinuity and criticality. Events that are higher on these characteristics are more likely to bring about changes in the features, behaviour or subsequent events affecting one or more entities (Morgeson et al., 2015). Career shocks, according to our definition, are such strong events that are salient because of their disruptive and unexpected nature. Hence, in line with EST, career shocks are likely to activate changes in career development.

One theoretical perspective that has not yet been applied to the topic of career shocks but does seem promising is conservation of resources (COR) theory (Hobfoll, 2001). According to COR theory, people strive to obtain and protect resources, and attempt to accumulate them over time, ultimately leading to enhanced well-being and individual development. Possessing such personal resources (e.g. self-efficacy) allows individuals to be more resilient, flexible and better able to deal with challenges they might face during their career (Hobfoll, 2002, also see Akkermans, Schaufeli, Brenninkmeijer, & Blonk, 2013). It would seem likely that a career shock can impact this resource accumulation process, either positively or negatively. In case of the former, positive shocks – such as a promotion or job offer – might provide a sudden boost to the resources one has, for example, by enhancing self-efficacy and perceived employability. Contrarily, negative shocks – such as being laid off or losing a valued co-worker – might directly reduce the available resources and potentially even initiate a resource depletion process (Ten Brummelhuis, Ter Hoeven, Bakker, & Peper, 2011). Thus, COR theory might provide a useful perspective for explaining the effects that career shocks can have on career outcomes.

Another theory that seems to be highly relevant to the investigation of career shocks is Weiss and Cropanzano's (1996) affective events theory (AET). What the aforementioned theories have in common is that, by and large, they focus on judgemental processes and distal outcomes, and hence they may fail to account for the proximal emotional reactions that come into play in the direct aftermath of a shock. In responding to Kidd's (1998) call to incorporate emotions in career theory, AET may thus be leveraged to elucidate how the immediate emotional response to a career shock may transmit its effect onto more distal attitudinal and behavioural outcomes, yielding insight into the process by means of which shocks impact careers. AET also incorporates dispositions as a moderator of the relationship between work events and affective reactions, which may be fruitful in developing hypotheses pertaining to why the experience of the same shock may bring about different outcomes for different individuals.

Finally, the earlier mentioned Chaos Theory of Careers (Bright & Pryor, 2005) and Happenstance Learning Theory (Krumboltz, 2009) are also relevant for studying career shocks. Both theories were primarily developed as tools for career counselling, and they share an underlying emphasis on the importance of acknowledging that both planned and unplanned events can impact career development. Indeed, both theories emphasise that the future (i.e. one's career) cannot be fully and rationally planned because unforeseen events will occur that significantly alter career paths. However, although both theories clearly underline *that* career shocks can have an important impact on career outcomes, they do not explicate *how* this process unfolds.

Formulating an agenda for future research

In this article, we have argued for career research to incorporate career shocks, thereby supplementing the dominant perspective of individual agency with contextual factors impacting career development. Below, we will formulate a number of avenues for future research, which we believe will further advance research on career shocks.

Conceptual framework

Building on our definition of career shocks and the attributes we formulated, it would be crucial for future research to further flesh out the concept of career shocks and empirically examine its various manifestations. There are several potential directions to take.

As a first step, research on the effects of career shocks in terms of their occurrence is necessary to better understand the impact of shocks on career development. More specifically, this means that we should investigate what impact the occurrence in itself and also the amount of shocks (cf. our notion of thresholds above) that someone experiences over time can have on career outcomes. Does the mere fact that someone experiences shocks influence their career outcomes? And do more shocks also have a stronger impact? In other words, we propose that future research might empirically examine the effect of quantity and frequency of career shocks on career outcomes. Past research has already shown that many people experience shocks and that they impact their long-term career outcomes (Bright et al., 2005; Scott & Hatalla, 1990; Williams et al., 1998), yet specific knowledge on whether and how the frequency of occurrence might impact career outcomes is less clear. For example, it would be interesting to examine whether experiencing multiple career shocks over time might diminish (negative shocks) or enhance (positive shocks) individuals' employability (Forrier et al., 2015), proactive career behaviours (De Vos et al., 2009) and the sustainability of their careers (De Vos & Van der Heijden, 2015). As such, we also call for research that examines the

interplay between career shocks and agency-related factors, thereby building a bridge between both perspectives. As we have argued throughout this article, it is the interplay between agency and context that enables us to more fully understand contemporary career processes. In this case, it would be highly interesting to, for example, study the interaction between career shocks and career self-management behaviours (King, 2004) and career crafting (Akkermans & Tims, 2017). In addition, it would be important to research whether certain individuals are more at risk of developing adverse reactions to shocks than others and whether individuals can be inoculated against negative career shocks, that is, whether people might prepare for and become more resilient in the face of career shocks (cf. Chaos Theory of Careers, Bright & Pryor, 2005). We would speculate that there will be an important role for agency-related traits and behaviours here, not only in terms of proactively crafting one's career but also in terms of being better able to manage unexpected chance events.

Frequency of occurrence, however, is only the first step in studying the nomological network of career shocks. As we discussed earlier, there are several attributes that need to be taken into account when investigating career shocks, such as the degree of predictability and controllability, the valence and intensity, the duration and the locus of shocks. As it will be difficult to instantly study all of these attributes at once, we propose that future studies start to elucidate the nomological network of career shocks by examining these dimensions separately. For example, studies could focus on the impact of intrapersonal versus interpersonal and/or social versus organisational shocks. It is likely that different types of shocks will have differential effects on career outcomes, and could even have unique effects on certain outcomes. To explain, highly personal and social career shocks (e.g. losing a loved one) might particularly impact one's private life and thus relate to career outcomes via the work–family interface, whereas an organisational shock (e.g. losing one's job after a reorganisation) might predominantly impact future occupational choices. Similar ideas apply to predictability and controllability (e.g. do unpredictable or uncontrollable shocks have a larger impact on one's career vs. more predictable or controllable ones?), and to intensity and duration (e.g. do more intense and longer career shocks always have a larger impact than less intense and shorter ones?). Of course, ultimately, we would need to bring together all these findings in an integrative framework of career shocks, especially because the various attributes of career shocks are likely to interact with each other. At this point, though, we believe that the literature is in need of empirical findings that can help the field forward. In the end, reviewing this literature and/or meta-analysing it and coming up with an integrative framework would become a possibility.

Theory

We have argued in this article that several theoretical perspectives already exist that can help to understand the mechanisms underlying career shocks and their effects on career processes. However, most of those theories are quite general in nature (e.g. EST, Morgeson et al., 2015) or have not been applied to the topic of career shocks yet (e.g. COR theory, Hobfoll, 2001). Therefore, further theorising is necessary to apply these principles specifically to the occurrence and impact of career shocks. Future studies could further – theoretically and empirically – explore which of the proposed mechanisms of the theories discussed might indeed best account for the effects that career shocks have on career outcomes, and also how these different theories might be interrelated. For example, Image Theory (Beach, 1990) and the unfolding model of turnover (Lee & Mitchell, 1994) already share a number of key propositions, such as the different types of images that individuals have. It is conceivable that these images, and especially their possible alterations, might be related to transient events as discussed in EST, or to resource gain and loss cycles as discussed in COR theory. Our article is only the start of mapping out and potentially integrating these theoretical perspectives, and we encourage researchers to follow up on this.

Reflecting on similarities and differences between theoretical perspectives with regard to career shocks would be the first important step, but ultimately we believe that a new dedicated theoretical model is necessary to completely understand the dynamics of career shocks and, more broadly stated, chance events in career development. Although most contemporary career theories (implicitly) acknowledge that chance events might play a role in career outcomes, a systematic approach to understanding the nature of specific events and their role in career development and decision-making is still lacking. Such a theoretical model would need to focus on the role of chance events while also taking into account the important factor of individual disposition and agency, thereby accounting for both person and environment in career development. Important elements in building a new theoretical perspective would be to integrate different typologies of chance events, to reflect on processes and the role that these events might play, the link with career outcomes and also the possibility of preparing for such chance events.

Methodology

In addition to conceptual and theoretical research, we also believe that it is important to reflect on potential research designs and analytical strategies that might particularly fit research on career shocks and chance events. One concrete possibility would be to empirically research these shocks using survey questions, as has been conducted, for example, by Seibert et al. (2013). Yet, as they also note in their paper, more research is needed to formulate the exact shocks that need to be measured and also how they need to be measured. In other words, it is important to develop and validate measurement instruments for career shocks. Thus, quantitative research would be needed to explore different types of career shocks and their occurrence, develop survey items and subsequently validate them. However, this might not be as straightforward as it seems. It is quite common in the careers literature to build

instruments that are of a reflective nature, that is, items share a common theme, are interchangeable, and internal consistency is crucial (Coltman, Devinney, Midgley, & Venaik, 2008). It is questionable, however, whether that would be desirable and possible for a measure of career shocks. Although we do argue that we would need such a reflective measurement instrument, it would be difficult to develop one overall measure of career shocks as a construct. Rather, we would advocate for developing a typology of career shocks and its attributes, and to construct relatively independent operationalisations of these shocks. This would enable researchers to measure the various attributes of career shocks accurately and to study them in tandem without losing unique variance when adding it all up into one overall instrument.

Another possibility to gain a more in-depth understanding of the nature of career shocks – and which could ultimately also contribute to develop a measurement instrument – would be to pursue qualitative research. For example, interview studies among different types of target groups might shed more light on the shocks they have experienced during their careers, and what the impact might have been of those shocks. Given the relatively nascent phase that research on career shocks is still in, applying an exploratory qualitative perspective might be fruitful to obtain some key new insights into the occurrence and impact of career shocks. In terms of analysing such rich data, it would be possible to apply innovative tools such as text mining (Kobayashi, Mol, Berkers, Kismihók, & Den Hartog, 2017) or qualitative comparative analysis (Rihoux & Ragin, 2008), which would allow researchers to analyse large amounts of data and search for common themes in terms of career shocks. Because career shocks might be quite different among different target groups – for example, young workers who might especially deal with shocks related to issues that they have never faced before versus older workers who might especially deal with shocks related to age stereotyping and retirement – using text mining would enable researchers to explore a vast array of different shocks among different groups of workers, which would open up many research opportunities.

Conclusion

In this article, we argue that the dominant perspectives in contemporary careers research have overlooked the critical role that the context – in terms of career shocks – can have on career development. To fully understand such processes, we need to look at the interplay of individual agency and unexpected chance events, and we therefore call for the incorporation of career shocks in the scholarly debate on careers. In line with this call, we proposed a definition of career shocks and provided a layout of different dimensions and several theoretical perspectives that might help to better understand this phenomenon. All in all, we hope that our call for inclusion of career shocks will spur future research in which both agency and context are included, thereby providing a more complete picture of contemporary career development.

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Competing interests

The authors declare that they have no financial or personal relationships which may have inappropriately influenced them in writing this article.

Authors' contributions

J.A. was responsible for conceptualising, writing and coordinating. S.E.S. and S.T.M. were involved in the conceptualisation and writing of the article.

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