

EMBRACING THE UNFORESEEN: A systematic literature review on career shocks and its conceptual antecedents

PATRICIA BOCK BANDEIRA

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS)

CAMILA VIEIRA MÜLLER ATITUS EDUCAÇÃO

MARCIA CRISTIANE VACLAVIK INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO RIO GRANDE DO SUL (IFRS)

ANGELA BEATRIZ BUSATO SCHEFFER

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS)

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INTRODUCTION

Contemporary careers unfold in an increasingly complex world characterized by the rapid pace of transformations and changes in the workplace. Like societies, careers are influenced by the economy, labor markets, technological innovations, government policies, cultural norms, social trends, and other contextual influences (Akkermans et al., 2018; Baruch & Sullivan, 2022). However, current studies still predominantly focus on personal competencies, such as employability, career planning, autonomous decision-making, and individual accountability (Akkermans & Kubasch, 2017). One of the main criticisms of these perspectives is their tendency to assume unrealistic levels of foresight and control on individuals while inadequately not considering the impact of unpredictable contextual factors on reshaping career paths (Akkermans et al., 2018).

Historically, various perspectives have been developed to understand the unpredictability of careers (Akkermans et al., 2018; Bright et al., 2005; N. Kim, 2022), considering not only the individual perspective but also the contextual influences and their interaction. Undoubtedly, unexpected events can have a significant impact on professional paths. These events have been studied in career research (Akkermans et al., 2018; Kim, 2022) and have been referred to as serendipity (Betsworth & Hansen, 1996; Krumboltz, 1998), happenstance (Krumboltz, 2009; Miller, 1983), chance events (Bright et al., 2005), and, more recently, career shocks (Akkermans et al., 2018; Seibert et al., 2013).

Despite the significant role that such events play in career development, these approaches have yet to gain substantial prominence in career research. In this study, we argue that advancing the contextual discussion in career studies can be achieved by exploring the central ideas from these perspectives that handle the influence of events on careers, specifically career shocks. Therefore, this research explores and addresses the following research inquiries: (1) What are the main discussion topics about career shocks and their antecedents in the current scientific literature? (2) How is it possible to consolidate theoretical frameworks for comprehending the influence of disruptive events on careers, enhancing the coherence of the literature on career shocks, and providing insights for both theoretical and practical domains?

This study aims to analyze how the academic literature addresses the discussion of career shocks within the field of careers research over time. We conducted a software-supported systematic literature review since it is useful for exploring and contributing to knowledge advancement. Using the Web of Science and Scopus databases and the Rayyan®, VOSviewer®, Excel®, and Iramuteq® software, we covered literature on career shocks and related concepts of serendipity, happenstance, and career chance events.

Although the importance of studying career shocks has increased in the face of contemporary challenges, they are not rare occurrences but a common part of life (Nalis et al., 2021). Most individuals have already experienced some form of career shock, which likely significantly impacted their professional paths (Akkermans et al., 2018). Therefore, the growing relevance of career shocks proves not just to be a fad provoked by events such as the pandemic but a significant theoretical advance of the influences of unexpected events on careers.

However, the field is still fragmented. The profusion of different concepts and perspectives associated with unforeseen circumstances evidences the urgent need for more clarity on this topic. It is necessary to establish relationships among the existing studies. Otherwise, it might lead to the development of disjoint perspectives over the same issue – a common practice in the career field (Baruch, 2015). Based on a previous search, no literature review specifically focused on career shocks, serendipity, happenstance, and chance events, indicating another gap in this subject. Thus, it is fundamental to gather the studies on this topic

and establish bridges between them, avoiding it becoming a collection of different and disconnected approaches.

THEORETICAL BACKGROUND: AN HISTORICAL ANALYSIS OF THE INFLUENCE OF UNEXPECTED EVENTS ON CAREERS

Historically, the term serendipity is one of the earliest attempts to address the influence of unpredictable aspects in careers. It has been commonly used as a broad label to refer to unplanned or unexpected events that influence professional trajectories. Particularly in the 1990s, various terms such as non-predictable, chance, unplanned, and happenstance were employed to capture this meaning. Bestworth and Hansen (1996, p. 93) defined serendipity as "events that were not planned or predictable but had a significant influence on an individual's career". Their research has identified different categories of critical events that potentially alter career trajectories. Alongside introducing new concepts, serendipity has also been associated with theories of happenstance (Krumboltz, 1998) and chance events (Bright et al., 2005; Legrand et al., 2022).

Another significant effort to include the influence of context in careers has occurred with the concept of happenstance, widely adopted in the field of career counseling. Miller (1983) defines happenstance as an unplanned event that has a measurable impact on behavior. This concept recognizes that the career choice process involving interests, abilities, and values is also influenced by chance, luck, lack of planning, or accidental circumstances (Miller, 1983). Building upon these foundational concepts, Mitchell et al. (1999) later proposed the Planned Happenstance Theory as a conceptual framework for career counseling, emphasizing the ability to transform unexpected events into opportunities for learning (Mitchell et al., 1999). Despite this theoretical advancement, traditional counseling theories prioritizing the person-profession fit continue to prioritize process and control, not incorporating the concept of change into their approaches (Kim et al., 2018; Valickas et al., 2019).

The concept of chance events has a more established tradition in career literature (Kim, 2022; Kindsiko & Baruch, 2019), emphasizing the influence of unplanned and fortuitous events on career behavior. Bright et al. (2005) have examined the central ideas behind the concepts of serendipity (Bestworth & Hanson, 1996), happenstance (Miller, 1983), and synchronicity (Guindon & Hanna, 2002) and understood that they converge in referring to "unplanned, accidental, or otherwise situational, unpredictable, or unintentional events or encounters that have an impact on career development and behavior" (Rojewski, 1999, p. 269). They also developed the Chaos Theory of Careers (Pryor & Bright, 2003), which assumes that career behavior is more related to chance events than a linear sequence of rational decisions. Kindsiko and Baruch (2019) understand that happenstance and serendipity refer to the influence of unexpected events in one's career that bring positive outcomes (happenstance) or occur happily or beneficially. On the other hand, the concept of chance events considers both positive and negative effects on careers (Baruch & Lavi-Steiner, 2015).

The expression "career shock" is the latest concept associated with the influence of disruptive events in careers. It traces back to Lee and Mitchell's (1994) study on voluntary turnover and assumes that a specific event (a shock to the system) precedes the decision to leave the organization (Lee & Mitchell, 1994). Two decades later, Seibert et al. (2013) revisited the ideas developed by Lee and Mitchell (1994) and defined career shocks as "any event that triggers deliberation involving the prospect of a change in an important career-related behavior, such as seeking further education, changing occupations, or changing employment status" (p. 172). Thus, they proposed a theoretical model that links career shocks to the organizational context, developing a measurement instrument to evaluate the impact of these events (Seibert et al., 2013). Examples of events on their scale include when a mentor or colleague who was

important to someone leaves the company or succeeds in a new job or a project that was initially perceived as challenging (Seibert et al., 2013).

Finally, Akkermans et al. (2018) introduce the latest concept of career shocks. Drawing from the literature on chance events, shocks, and turnover (Seibert et al., 2013; Lee & Mitchell, 1994), career shocks are defined as "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" (Akkermans et al., 2018, p. 4). This perspective places contextual dimension as paramount for career analysis, indicating the need for looking at careers beyond individual-centered approaches. The need for individual deliberation after a disruptive event reinforces the systemic and comprehensive approach of career shocks, in which the context (structure) affects the individual, their meaning-making, and the way they might react (agency) upon a particular event, navigating between the axiom of agency-structure (Akkermans et al., 2021).

METHOD

To accomplish the paper's purpose, we carried out a software-supported systematic literature review. We used the PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) (Rethlefsen & Page, 2022) as a methodological guide. Additionally, we used the following software tools to facilitate and ensure methodological rigor: Rayyan® (web application version), VOSviewer® (version 1.6.19), Excel® and Iramuteq® (version 0.7 alpha 2). the review process consisted of four distinct phases.

Phase 1. As a data source, we defined two scientific databases: ISI Web of Science (WoS) and Scopus. We determined the terms for the search based on Akkermans et al. (2018) seminal work on career shocks. The search included four keywords, with no temporal limitation for the search: "career shock*", "chance event* AND career*", "happenstance AND career*", and "serendipity AND career*". The asterisk symbol (*) was used to explore lexically related terms from a common root. Throughout May and June 2023, we performed eight independent searches in WoS and Scopus databases, using the topic field (encompassing title, abstract, and keywords fields). To ensure relevance, we applied filters to consider only articles, excluding conference papers, editorials, and book reviews. We found 499 articles, detailed in Table 1. **Table 1**

Term / Database	WoS	Scopus
career shock*	44	47
chance event* AND career*	60	46
happenstance AND career*	83	73
serendipity AND career*	65	81
Total	499	

Summary of Results from Phase 1

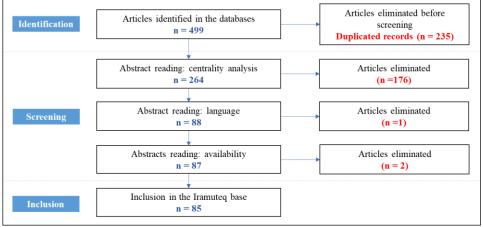
Phase 2. We then defined the following criteria for maintaining or excluding articles: a) exclusion of duplicate articles, b) exclusion of articles not written in English, c) exclusion of articles that were unavailable for download, d) exclusion of articles that did not primarily focus on career shocks and related concepts as their central theme. The results obtained in phase 1 were exported from WoS and Scopus and then imported into the Rayyan® software, an academic tool designed for systematic collaborative reviews. Rayyan® facilitates remote teamwork and enables double-blind analysis in the screening process, including identifying duplicate articles. A total of 235 duplicated articles were removed, leaving 264 papers for the subsequent screening process based on the abstract reading.

Using the Rayyan® platform, each researcher independently and anonymously reviewed the abstracts, assigning them as "include," "exclude," or "maybe." Researchers had

the option to include notes justifying their decisions. Once all researchers completed this task, the anonymous review was deactivated to identify any divergences in judgment. These discrepancies were discussed during online meetings until a consensus was reached among the researchers regarding the articles to be included. Following this process, 176 articles were excluded as they did not primarily address or problematize career shocks and related concepts as a central theme. Additionally, one article written in Chinese was excluded due to language unavailability, and two were excluded due to download unavailability. Consequently, 85 articles remained for a comprehensive qualitative analysis. The flow diagram of this process is illustrated in Figure 1.

Figure 1

Flow Diagram



Note. Elaborated by the authors from the literature review according to the PRISMA statement.

Phase 3. This phase consisted of bibliometric analysis, considering the journals of publications and the number of publications per year. Inspired by Macke & Genari (2019), we also investigated the evolution of publications and the usage of theories over time. These analyses were made with the support of Excel® spreadsheets. We also analyzed the authors' network with the support of VOSviewer®.

Phase 4. The qualitative analysis of the 85 selected papers was carried out in two stages. First, we built a corpus based on abstracts of the selected articles and used Iramuteq® software for cluster analysis. Abstracts are a powerful way to map a field of study since they contain condensed and standardized information. Iramuteq® is a useful tool for in-depth statistical analysis of textual data, which supports interpretative biases and helps direct the procedures of researchers (Macke & Genari, 2019; Fogaça et al., 2022). Iramuteq® extracts and quantifies the most important structures, called Elementary Context Units (ECUs), for semantic contextual analysis (Illia et al., 2014), using lexicography and multivariate analysis (such as descending hierarchical classification and similarity analysis). The corpus is divided into blocks, and chi-square tests are employed to confirm the classification of context units (Vallbé et al., 2005). As a result, Iramuteq® generates clusters that guide researchers' content analysis. In the second stage, based on the clusters' results, all the articles were fully read, and deep qualitative analysis was carried on to fulfill the article's objective.

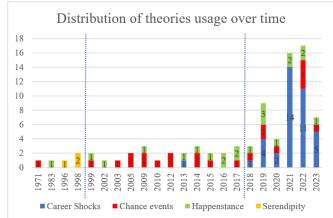
RESULTS

For a descriptive view of the 85 articles, we examined the journals in which they were published, the year of publication, the utilization of theoretical lenses over time, and the authors' network over time. Since 2012 the theme has been annually published, but it started to be more significant in 2019 (see Fig. 2). From 2019 to 2023, the last five years encompassed 53 articles or 62% of all publications. The earliest publication, dating back to 1971, appeared

in the Journal of Vocational Behavior and employed chance events as a theoretical lens. Since then, only 15 journals encompass 65% of all publications. Notably, "Career Development International" and "Journal of Vocational Behavior" are the most frequent, contributing ten papers. In sequence, "The Career Development Quarterly" (7 publications), "Journal of Career Development" (4 publications), "Frontiers in Psychology", "International Journal for Educational and Vocational Guidance" (3 publications each), and nine other different journals encompassing 18 papers. The remaining 30 papers are dispersed in 30 journals.

Figure 2

Distribution of Theories per Year



Note. Elaborated by the authors from the literature review with the support of Excel® software.

Three distinct phases can be discerned upon analyzing the utilization of theoretical lenses over time (see Fig. 3). First, an *incubation phase*, spanning from 1971 to 1998, encompassed a mere four publications (5.9%) and employed three different approaches (chance events, happenstance, and serendipity). Subsequently, a *growth phase* unfolded from 1999 to 2017, with 24 papers published (28.2%). During this phase, the chance events perspective predominates, closely followed by happenstance, while the prominence of the serendipity perspective diminishes. Lastly, an *acceleration phase* occurred from 2018 to 2023, with 56 papers (65.9%) published. Thus, as 2023 is ongoing, the number of papers is expected to grow. Notably, the latest publications were prominently influenced by the socioeconomic consequences of the COVID-19 pandemic. In this stage, career shock emerges and firmly establishes itself as the most prevalent lens, accounting for 37 publications (43%). Besides, chance events and happenstance perspectives continue to be employed alongside career shock.

Finally, using the support of VOSviewer, we analyzed the authors' network over time. It was possible to notice two main clusters of authors with no intersection. On the one side, more recently, the works of Jos Akkermans, Stefan T. Mol, Scott E. Seibert, and Maria L. Kraimer stand out. Conversely, Sang Min Lee, Boyoung Kim, Eunjeong Rhee, and colleagues led a different stream.

Clusters Analysis - Thematic Approaches

The qualitative analysis of the 85 articles was carried out with the support of Iramuteq®. The software grouped the results of the abstract processing into four main classes, making up 75,87% of the corpus' ECUs. By calculating chi-square values (χ_2) for each word, Iramuteq® generates a dendrogram, or distance tree, that visually depicts the semantic significance of the classes. This dendrogram (see Figure 3) aids researchers in comprehending the distinctions between clusters and the distributions of content typologies (Illia et al., 2014). Figure 4 illustrates the results in a spatial distribution. Figure 6 points out three major ramifications represented by letters A, B, and C.

Although career shocks are a complex phenomenon based on the interplay between the individual and context, it is possible to examine them through different lenses: either the context or the individual, or even how its interplay is established, as shown in Iramuteq content analysis. For example, it is possible to study specific career shock types, using the *context approach* as the lens of research and how it affects individuals. On the other hand, researchers can adopt a slightly different perspective, departing from the individual perception of the shocks and how they experience them and embracing an *individual approach*. Finally, career shocks can be understood by studying how different variables may alter their experience or help to manage their outcomes better. This analysis enhances understanding of its precedents, consequences, and intervention possibilities based on a *processual approach*. Even though it is impossible to comprehend career shocks without one of these elements (context, individual, and its interplay), since the three are mandatory for a career shock to happen, the field can benefit from these different perspectives on the topic to better comprehend its complexity.

Cluster 1 (23.4% of ECUs) represents the *contextual approach* for studying career shocks and their antecedents, examined from a macro perspective. Cluster 1 is spatially differentiated from the others (see Figure 3) since its study variable mainly focuses on the shock *per se*. The other three clusters, however, adopt a micro perspective about career shocks and their antecedents.

Clusters 2 (27.2% of ECUs) and 3 (24.1% of ECUs) are very close to each other (see Figure 7) and derivate from the same branch (B), being grouped for analysis purposes. They both relate to an *individual approach* in career shock studies, analyzing subjective perceptions and meaning (cluster 2) and personal skills (cluster 3) concerning the experience of a career shock. Finally, cluster 4 (25.3% of ECUs) examines career shock phenomena under a *processual approach*, bringing the interaction of the individual and contexts as the main focus. The studies under this cluster analyze how individual factors may interact with or provoke different outcomes of career shocks, providing valuable insights for career interventions.

Some papers present more than one of these approaches, firstly adopting a contextual or individual point of view and then analyzing the interplay with the shock from this initial perspective. That reinforces the complexity of studying career shocks since they always presume the relationship among the three perspectives, being almost impossible to treat them as fully separate elements. However, the ECUs presented only one of the three approaches, composing the different categories identified in this review.

From Figure 4, it is possible to infer the thematic distribution output of the classes, considering that the vertical axis (factor 1) reflects the adoption of a macro or micro perspective for the study. The higher factor 1, the most likely the ECUs present a micro perspective of career shocks, considering their interplay with individual variables, such as personal skills, meaning-making, career-related variables (e.g., career satisfaction or optimism), or other specificities. On the other way, as lower factor 1 is, most likely that the ECU adopts a macro perspective, considering the characteristics of career shocks themselves or how they may affect larger groups, organizations, or even the workplace.

The horizontal axis (factor 2) considers whether the ECU has an exploratory or applied outlook regarding the phenomena of career shocks. The higher factor 1, the most likely the ECU will propose practical outcomes or interventions for managing or understanding career shocks, adopting – generally - a quantitative methodology. On the other hand, the lower factor 2, the most likely the ECU, will focus on describing the career shock phenomena, how people experience it, and their perceptions about it. In other words, it considers how participants perceive it than proposing applied models or statistical analysis.

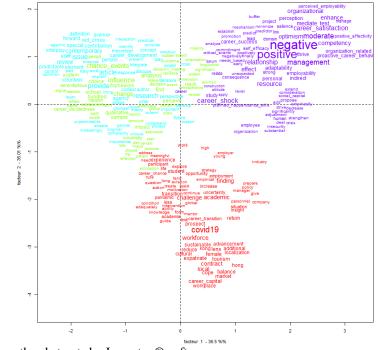
Figure 3

Dendrogram

٩			₿			C	
Cluster 1 (23.4%) Contextual Approach		Cluster 3 (24.1%) Cluster		Cluster 2 (27.2%)		Cluster 4 (25.3%)	
				l Approach	Processual Approac		
ECU	χ ²	ECU	χ ²	ECU	χ²	ECU	χ²
covid19	35,32	provide	27,12	influence	26,66	negative	74,72
contract	20,14	issue	25,94	chance_events	22,65	positive	64,32
finding	19,80	research	24,22	change	20,01	moderate	30,72
academic	19,60	article	23,94	two	17,10	management	29,34
workforce	18,95	contemporary	19,30	analysis	17,08	career_shock	25,25
local	16,71	review	16,02	choice	15,15	resource	23,40
challenge	16,07	make	14,65	were	15,02	career_satisfaction	23,05
tourism	13,32	person	13,59	school	13,64	relationship	22,92
female	13,32	career_development	13,32	qualitative	12,44	competency	21,25
expatriate	13,32	contribution	12,77	find	12,20	optimism	19,96
cope	13,32	staff	12,77	perceive	11,77	effect	18,70
market	13,32	special	12,77	impact	11,69	test	18,14
balance	13,32	red_cross	12,77	hundred	10,87	enhance	18,14
lens	13,32	element	12,77	seven	10,87	organizational	16,91
career_capital	13,32	key	12,42	sample	9,77	mediate	16,91
experience	10,27	agency	11,94	framework	9,77	proactive_career_behavior	15,06
advancement	9,95	forward	9,54	system	9,77	adaptability	13,59
workplace	9,95	volunteer	9,54	three	9,62	via	13,59
sustainable	9,95	predictable	9,54	happen	8,12	organization_related	12,00
reduce	9,95	interplay	9,54	adolescent	8,12	thrive	12,00

Note. Elaborated from the abstracts with the support of Iramuteq® software.

Figure 4 Spatial Distribution



Note. Elaborated from the abstracts by Iramuteq® software.

DISCUSSION

Thematic Approach A: Contextual Perspective

The contextual perspective involves examining the contexts that precede and shape career shocks to understand the conditions that trigger their occurrence. This thematic cluster comprises recent articles published from 2015 onwards. Thus, it is understood that the findings indicate different contexts in which career shocks occur, assisting in understanding the phenomenon itself, classified as structural, organizational, and personal contexts.

Structural contexts. It refers to career shocks associated with events involving the labor market's structural and macro-contextual aspects, considered to have low predictability and, therefore, pose difficulties at an individual level (Chen, 2005). Mainly, the structural contexts perspective examines the extent to which economic, social, and cultural factors that shape career shocks are intertwined. Prematillake and Lim (2018), in their analysis of the role of chance events in the trajectory of international students seeking full-time employment in Singapore, found influences from employment and governmental policies (e.g., policies that either hinder or facilitate the employment of foreigners, bureaucratic processes for obtaining/renewing work visas) specific to that region. Consistent with this perspective, Nair and Chatterjee (2021), in their research on Indian MBA careers, identify "occupational barriers" as shocks that affect the possibility of entry into certain occupational sectors in that context. For example, Medicine, Engineering, Business Administration, and positions in Public Administration are considered prestigious careers in the country and, therefore, have high entry barriers due to the processes required to enter the Indian job market (e.g., qualifications, selection processes, exam approvals). Similarly, Kindsiko and Baruch (2019) indicate that national-level factors (e.g., scarcity or excess of government resources for national research) are influences that systematically affect organizations (e.g., internal policies or job availability) and individuals (individual level, e.g., difficulty in accessing universities).

Further structural aspects are discussed by examining the gender-related structural contexts that influence the formation of a career shock, shaping the way women and men perceive the impact of a disruptive event in distinct ways (Kim, 2022; Nair & Chatterjee, 2021). Knowles and Mainiero's (2021) study on career shocks experienced by women in leadership positions who opted out of the workforce revealed two typologies particularly relevant to women: opting-out shocks and career re-entry shocks. Opting-out shocks mainly involve maternity-related events are identified as negative shocks in the research due to the difficulty of balancing them with professional life, reflecting the gendered division of work, wherein women interrupt their careers for family caregiving. Re-entry shocks, otherwise, reveal structural gender inequalities, including discrimination, pay inequity, difficulties in obtaining interviews, judgment by others (for the decision to opt out), and harassment (Knowles & Mainiero, 2021).

Lastly, events of significant magnitude involving natural disasters (Wordsworth & Nilakant, 2021) and, more recently, the Covid-19 pandemic are considered career shocks due to their highly disruptive and extraordinary nature (Akkermans et al., 2020; Hite & McDonald, 2020). Its structural consequences include layoffs, work contract suspensions (Akkermans et al., 2020), the need for career interruptions due to family caregiving, as well as transforming (or extinguishing) occupational sectors and the modus operandi of organizations (Hite & McDonald, 2020).

Organizational context. It encompasses career shocks related to the organization where individuals. It addresses various aspects of organizations, emphasizing events that are related to their policies and practices (Nery-Kjerfve & Wang, 2019; D L Van Helden et al., 2023), organizational changes (Pak et al., 2021), and interpersonal relationships in the organizational context (Pak et al., 2021; Prematillake & Lim, 2018; Van Helden et al., 2023). In the context of policies and practices, studies examine career shocks related to promotion, such as the perception of injustice in the process or the violation of implicit promises (Kraimer et al., 2019; Van Helden et al., 2023). Nery-Kjerfve & Wang (2019) analyze the career transition process of company-assigned expatriate employees from balance sheet expatriate contracts, which large corporations commonly use. These shocks occur during the expatriation and repatriation

process and involve adapting to a new culture, lacking institutional support during work abroad, and unfulfilled promotion expectations upon repatriation (Nery-Kjerfve & Wang, 2019).

Organizational changes involve shocks related to new jobs or projects, bankruptcy, layoffs (Pak et al., 2021), uncertainties associated with mass layoffs of colleagues, or situations of company merger/sale, which prompt individuals to question whether to stay or seek new opportunities (Nair & Chatterjee, 2021). Van Helden et al. (2023) understood these changes as "pure career shocks" because of their low controllability. They exemplified it with a leadership situation as it includes factors beyond individual control and can signify opportunities for obtaining resources or unexpected promotion for the new occupant. However, it can also trigger a cascade of negative shocks related to the new occupant, such as incompatibility with the organizational culture, leading to the deterioration of interpersonal relationships (which would be a career shock). It may even stimulate the departure of other colleagues, facilitating similar shocks within the organization (Van Helden et al., 2023).

Finally, events involving interpersonal relationships within organizations are frequently addressed as career shocks (Nair & Chatterjee, 2021; Pak et al., 2021; Rummel et al., 2021; Van Helden et al., 2023) or chance events (Betsworth & Hansen, 1996; Blanco & Golik, 2015; Kim et al., 2019; Kindsiko & Baruch, 2019). The findings of Betsworth and Hansen (1996) and Bright et al. (2005) are once again reinforced in studies that demonstrate the influence of professional connections in situations of unexpected career opportunities, unintended exposure to new activities that were or were not found interesting, which can trigger the search for new possibilities, the redefinition of career goals, or the consolidation of new trajectories (Blanco & Golik, 2015; Kim et al., 2019; Prematillake & Lim, 2018; Pak et al., 2021). Conflicts with supervisors, coworkers (Kraimer et al., 2019; Nair & Chatterjee, 2021; Pak et al., 2021; Van Helden et al., 2023), or clients (Pak et al., 2021) are prominent in the findings.

Personal context. These shocks are related to the impact of the personal life context on career decisions. Shocks are usually related to marriage and family domains (Betsworth & Hansen, 1996; Bright et al., 2005; Blanco & Golik, 2015; Knowles & Mainiero, 2021; Nair & Chatterjee, 2021; Prematillake & Lim, 2018), diverse experiences in private life (Pak et al., 2021; Rummel et al., 2021), illnesses (chronic) and physical pain (Chen & Slater, 2023; Pak et al., 2021), as well as the illness or loss of a loved one (Pak et al., 2021; Rummel et al., 2021). Family-related career shocks generally have some degree of predictability, although their outcomes cannot be fully controlled (Blanco & Golik, 2015; Chen, 2005). For example, even when planned, maternity brings challenges (especially for women) that can only be partially anticipated in advance and influence decisions about career paths (Pak et al., 2021; Van Helden et al., 2023). Mariage, a deliberate event that can lead to new career directions (Blanco & Golik, 2015; Pak et al., 2021), is also discussed in the literature. Nair and Chatterjee (2021) suggest that marriage can lead to shocks associated with the desire to stay or relocate (especially to different cities) to begin a new life as a couple or to accompany the spouse. Another related theme is career deliberations triggered by the need to care for elderly family members, involving city relocations or even career interruptions (Nair & Chatterjee, 2021; Pak et al., 2021).

Experiences in private life can trigger career shocks. In the analysis conducted by Rummel et al. (2021), activities such as traveling, reading an inspiring book, or participating in a lecture or course can lead to different perspectives or insights regarding careers. From another perspective, Pak et al. (2021) consider new romantic relationships as positive career shocks when, for example, they result in career motivation due to the support of a partner. Within this context, the literature frequently associates encounters with friends, acquaintances, and professors, leading to unexpected job opportunities as chance events (Blanco & Golik, 2015; Kindsiko & Baruch, 2019; Prematillake & Lim, 2018). On the negative side, family tragedies or losing loved ones, such as deaths or suicides, also emerge as important catalysts for personal

and professional changes (Rummel et al., 2021). Furthermore, severe or chronic illnesses, such as cancer, sleep apnea, and mental health conditions, such as burnout, are addressed in research as shocks, as they adversely affect work capacity and negatively impact work ability (Chen & Slater, 2023; Pak et al., 2021).

Thematic Approach B: Individual Perspective

The second thematic approach adopts an individual perspective of career shocks. Differently from Cluster 1, its focuses on individual perceptions and experiences regarding career shocks. Most ECUs framed in this cluster emphasized how individuals give meaning or deal with unexpected events rather than identifying negative or positive influences from the context.

How people manage career shocks. The first papers considering this individual perspective used the concept of serendipity. They have explored the incidence of serendipitous events in careers by categorizing them according to the participant's perceptions (Betsworth & Hansen, 1996) or by questioning the traditional career planning theories (which assume individuals have complete control and predictability over their career trajectories) through the examination of the careers of women in counseling psychology (Krumboltz, 1998). These studies analyzed how unplanned events have impacted their individual experiences and career development. Many other studies also adopted this individual perspective of how people manage and perceive career shocks regarding topics such as academic career success (Kraimer et al., 2019), career sustainability (Pak et al., 2021), first job search (Prematillake & Lim, 2018), career decision-making (Wordsworth & Nilakant, 2021), and the role of family support (Mehreen & Ali, 2022). Even the seminal study about career shocks, written by Seibert et al. (2013), examined how career shocks could affect the individual decision to pursue graduate education, clearly adopting the individual perspective of career shocks.

Few studies in this thematic approach considered how people have experienced the COVID-19 crisis. Hite and McDonald (2020) examined how individual factors and HRD could help people and their occupations after suffering the impacts of the pandemic; Mouratidou and Grabarski (2022) conducted the initial part of their study exploring individual perceptions of the lockdown and its implications for career sustainability; Muschalla et al. (2022) investigated the academic and family situation of young scientists in Germany after facing the challenges imposed by the COVID-19; and Cao and Hamori (2022) identified and analyzed different career orientations of Chinese employees while facing the pandemical restrictions. Although these examples bring the COVID-19 crisis as a specific career shock, they all have focused on how specific people or groups have experienced it, considering an individual perspective of this major event.

Professional projections. More recently, the influence of unexpected events on professional projections has become another topic under the individual perspective of career shocks. For instance, Legrand et al. (2022) studied how organizational managers had their careers affected by career shocks, while Barbulescu et al. (2022) examined how the career perspectives of professionals in service firms with up-or-out promotion systems may suffer impacts of workplace chance events; and Kurukulaadithya et al. (2023) investigated how aviation pilots dealt with the shock of losing their license to work, due to intensive regulation regarding their medical certification. The research on career shocks' impacts on personal career perspectives (Kim, 2022) has also taken into consideration the influence of cultural aspects, especially regarding the careers of Latin American CEOs (Blanco & Golik, 2015); Red Cross of Serbia staff and volunteers (Petrović et al., 2021); and Hong Kong's aviation and tourism students (Choy & Yeung, 2022; Yiu et al., 2022).

Career shocks may differentially impact people accordingly to their social groups (Akkermans et al., 2021). Therefore, exploring how gender may interfere with career shock

management has become an important topic from the individual perspective. This subject was central to the studies (Cho et al., 2022; Kim et al., 2019) about how Korean female workers and women with doctoral degrees in Korea experienced career shocks, respectively. Female leadership has also been a topic of interest: Knowles and Mainiero (2021) analyzed the careers of women leaders who opted out of the corporative career and, more recently, Gloor et al. (2023) focused on women's leadership pursuit and how they experienced the role of critical events.

Improving existing theories. Some papers used the individual approach of career shocks to present new concepts and theories. Rojewski (1999) considered the key ideas of the social cognitive theory of Bandura to examine the influence of happenstance in individuals' trajectories, while Mitchell et al. (1999) and Kim et al. (2014; 2017) introduced the concepts and measurements that formed the Planned Happenstance Theory. This theory emphasizes how individuals may adapt themselves or develop specific competencies to benefit from chance events or unplanned opportunities, favoring career transitions (Rice, 2014), psychological wellbeing and academic adjustment (Valickas et al., 2019), or the process of returning to work (Chen & Slater, 2023). The individual perspective of career shocks has also been studied under the Chaos Theory of Career (Bright & Pryor, 2005). Other studies also tried to bring further advancements to the field by proposing new models, terms, and concepts based on individual perceptions of career shocks, such as synchronicity, career success antecedents' model, and suddenness (Grimland et al., 2012; Guindon & Hanna, 2002).

Career stages. Research also investigated how different moments of people's career development affect their experience with career shocks. Hirschi and Valero (2017) studied different profiles of adolescents in their first year of vocational training; <u>Ulas-Kilic et al.</u> (2020) analyzed university students' perceptions of unplanned events in Turkey; Hirschi (2010) explored the moment of school-to-work transition; Rummel et al. (2021) studied newly graduated entrepreneurs experiences on career shocks; Peake and McDowall (2012) and Nalis et al. (2021) studied mid-career individuals; finally, there were also several studies about the career pathways of PhDs and postgraduates (Bazos et al., 2021; Kindsiko & Baruch, 2019; Nair & Chatterjee, 2021).

Thematic Approach C: Processual Perspective

As Blanco and Golik (2015, p. 1882) pointed out, "careers are shaped by both human agency and chance, and there is a constant interplay between them". This third thematic approach focuses on this interaction between the individual and context, bringing this process into the spotlight. Most of the ECUs in this perspective used quantitative methods to examine career shocks, investigating which are the antecedents, mediators, or outcomes provoked by unexpected events and how they reflect in individuals' careers.

Interplay and impacts of career shocks. The majority of studies analyzed the influences of career shocks by measuring other variables, such as academic career success (Kraimer et al., 2019), employability (Blokker et al., 2019), motivation to focus on opportunities (Feng et al., 2019), career commitment (R. Ahmad & Imam, 2022), career optimism (B. Ahmad & Nasir, 2023; Hofer et al., 2021), turnover intention (Nauman et al., 2021), family support (Mehreen & Ali, 2022), support structures and adaptability (Kurukulaadithya et al., 2023). On the other hand, the qualitative studies using the processual approach aimed to comprehend how career shocks might influence career sustainability (Pak et al., 2021) or career transitions (Wordsworth & Nilakant, 2021) based on participants' narratives other than surveys or statistical data.

Interventions and strategies. Some studies have focused on proposing strategies to manage career shock outcomes better. Engaging in coaching conversations and further elaboration about career options are viable alternatives, especially regarding executives (Korotov, 2021). Another option is to manage career shocks through proactive career behavior.

According to Ali and Mehreen (2022), employees should strive to enhance personal resources through organizational development opportunities, to better manage sudden career shocks. Finally, it is possible to better manage career shocks by strengthening positivity since it allows individuals to facilitate their perception of shocks, minimizing the possibility of a decrease in adaptability resources (Mansur & Felix, 2021).

Influences in Leadership. One of the main topics considering this processual approach to career shocks is the study of its influences on a leader's career path. This interaction of the research variables exemplifies the processual perspective about career shocks regarding the professional trajectories of corporate leaders, evaluating variables such as career attitudes and success (Grimland et al., 2012), Kaleidoscope Career parameters and leadership practices (Knowles & Mainiero, 2021), identity salience and leadership status (Gloor et al., 2023) and valence of career outcomes (Legrand et al., 2022).

Happenstance skills. Even losing its prominence over the years, another topic under the processual approach is the analysis of the interplay of chance events and happenstance skills (Kim et al., 2016). They have been positively associated with life adjustment (Kim et al., 2018) and significantly predict academic achievement and psychological well-being (Valickas et al., 2019).

Multiple perspectives. It is important to notice that some papers have adopted more than one perspective about career shocks. Even from a contextual perspective, these papers contributed by exploring how specific career shocks (such as the COVID-19 crisis) may affect different variables, such as employer support, employability, career satisfaction, mental wellbeing, and career empowerment (Mouratidou & Grabarski, 2022), career orientations (Cao & Hamori, 2022) or career intentions (Monica Waichun Choy & Yeung, 2022). These findings reinforce the complexity of research about shocks and the career field itself, given their multiple perspectives and study possibilities.

FINAL CONSIDERATIONS

This paper analyzed how the academic literature addresses the discussion of career shocks within the field of careers research over time. We evaluate career shock research and develop a categorization that provides a foundation for understanding the different perspectives on the topic. Our main contribution is offering several starting points that support further studies on the topic: contextual, individual, and processual perspectives. It adds to the literature about career shocks by integrating the main ideas of career chance events, serendipity, and happenstance.

Research on career shocks has become crucial for understanding the processes involved in career development in contemporary times, given that the work context is becoming more complex, dynamic, and unpredictable. The emergence of the Covid-19 pandemic has revitalized the exploration of unexpected events' contextual influences on careers (Nalis et al., 2021; Akkermans et al., 2020), particularly under the perspective of career shocks. With the advent of the Gig Economy, technological advancements replacing human labor (Hite & McDonald, 2020), and the intensification of global talent competition, research on the impact of career shocks will undoubtedly become more relevant than ever before (Akkermans et al., 2021).

Because this study is a work in progress, it has its limitations. There is a need for a detailed explanation to support future studies fully. Further research must address the issues to consolidate an academic corpus and advance existing research.

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