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Chance events in managers' careers: Positive and negative events, their expected and unexpected outcomes

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Abstract
Current literature focuses on factors that explain career success but mostly ignores the role of chance events and the way they affect careers. Furthermore, the literature does not distinguish between different types of chance events and their outcomes. We draw on 682 questionnaires with both qualitative and quantitative elements completed by managers in a major European country, more than 60% of whom indicated they had experienced a significant chance event that had influenced their career. While the majority reported positive events that led to positive career outcomes, substantial numbers reported other scenarios of perceived event-impact cases (e.g., approximately 16% reported a negative event that had positive career consequences). Qualitative analysis revealed specific attributes of a four-quadrant framework, whereas quantitative analysis compared the groups regarding career-related outcomes and psychological characteristics that reflect career orientations. Some of the differences between the groups are counterintuitive. Our study makes a unique and original contribution by uncovering the role of chance events in careers.

KEYWORDS
career success, chance event, managerial careers

INTRODUCTION

Significant efforts have been devoted to the identification of factors leading to career success. However, with respect to its antecedents, quantitative empirical studies have managed to explain only limited amount of variance. The typical level of variance accounted for in career success variables ranges between 0.20 and 0.50 for both objective and subjective career success (SCS) indicators (Ng et al., 2005; Ng & Feldman, 2014; Spurk et al., 2019). Objective or extrinsic career success is typically evaluated by income and hierarchy progress, whereas subjective or intrinsic career success is measured by satisfaction from career-related aspects. Explained variance in the range of 0.20 to 0.50 is fairly low, suggesting that other factors should be invoked to fully understand career outcomes. A plausible explanation for the limited ability to predict career trajectories and outcomes is a failure to consider the influence of chance events.

Chance events occur when there is influence of "factors that have the unique qualities of being unpredictable and unplanned for" (Rice, 2014, p. 446). Chance can be catalytic for careers and their outcomes (Hancock, 2009; Rice, 2014). Indeed, chance events can lead to career shocks (Akkermans et al., 2018) and can influence professional development from early career stages (Dobrev & Merluzzi, 2018). Furthermore, being in the right place at the right time (by chance) can affect career progression (Kindsiko & Baruch, 2019; Schneidhofer et al., 2020). Yet, empirical investigations into the role of chance events in careers are rare (Modestino et al., 2019; Pryor & Bright, 2011). This is a void that deserves attention because by knowing more about their role and impact on careers, not only can we increase our understanding of career progression but also

develop guidelines and advice for individuals and organizations.

Contemporary literature has largely refrained from focusing on the relevance and impact of chance events, possibly due to the traditional assumed linearity of career progress and the practical difficulty in collecting relevant data. Even when chance events are acknowledged, their type or nature are missing from the discussion. Furthermore, while chance events may have positive or negative consequences, it may not necessarily be that positive chance events always have beneficial career consequences and negative events always lead to detrimental ones.

The aims of the study are to build a framework of chance events, based on the nature of the perceived events and their impact on career outcomes, and partly building on the Chaos Theory of Careers (CTC) as presented by Pryor and Bright (2011, 2014). We also aim to identify the perceived impact of chance events on career outcomes and explore individual characteristics that relate to chance events and their outcomes. Chaos theory is concerned with unpredictability, something that may be seen as impossible to prepare for—which is in essence "chance"—and its consequences (Gauthier, 2009; Gleick, 2008). Key principles of chaos theory include that an event that appears insignificant or minor when it occurs may eventually have a profound influence in the course of subsequent events and outcomes (the butterfly effect) and that two trajectories that have been identical up to a certain point may evolve and end up very differently simply because something influences one of them when it could very well have influenced the other (the turbulence principle) (Gleick, 2008; Williams, 1997). The ideas of chaos theory fit into the understanding of careers because they enhance realism; in real terms, the level of unpredictability in careers—the probability that a career will not evolve according to plan or in a predetermined sequence of stages because of influential unplanned events—is high (Meng-Lewis et al., 2022; Pryor & Bright, 2014).

This study makes the following contributions: First, we extend career theory (Arthur et al., 1989; Gunz et al., 2020a; Gunz & Peiperl, 2007), by exploring the accidental element that is not covered by major approaches to the study of career progression and success (Schneidhofer et al., 2020). This extension of theory enables a better understanding of careers and offers a holistic view for careers, where career sustainability is desired (De Vos & Van der Heijden, 2015). Second, we offer an expanded and balanced view, including empirical support for the "dark sides" of careers (Vardi & Vardi, 2020). This is done by introducing a typology that distinguishes between types of events and outcomes—some representing the bright side of careers, others, the dark side. Third, we explore the prevalence of the chance event phenomenon, be it positive or negative, and its positive and negative influence on careers. Fourth, we examine how individual attributes, career orientation, and growth mindset relate to the presence, impact, and outcomes of chance events.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Managerial careers have been the focus of significant attention, due to the critical impact of human assets on organizational performance (Bozionelos & Baruch, 2015). Studies have examined career success, career plateau, career change, and achieving sustainable careers (Spurk et al., 2019; Van der Heijden et al., 2020). Contemporary career thinking suggests that careers have become more dynamic and fluid but also more volatile (Groysberg et al., 2019). Individuals take responsibility for planning and managing their own careers, as suggested by the notions of career proactivity (Parker & Liao, 2016; Smale et al., 2019), and sustainable careers (De Vos et al., 2020; De Vos & Van der Heijden, 2015) within a career ecosystem (Baruch, 2015), where chance events might have a disruptive impact that may not be conducive to career sustainability (Chudzikowski, 2012).

Chance event—The missing link?

A common thread across most empirical studies is the search for sense-making and theory-based factors and models to explain career-related processes and outcomes. Scholars aim to predict success and identify moderators and mediators to decipher their impact on career outcomes. Yet, one significant factor, chance events (and their impact on careers), is rarely considered (for exceptions, see Hirschi, 2010; Rice, 2014; Bright et al., 2005; and Grimland et al., 2012). The dynamic changes in careers were already identified by Sullivan (1999) in her review of the career literature by the end of the 20th century. CTC (Pryor & Bright, 2011, 2014) acknowledged the dynamism and complexity, but added the factor of chance or luck, and its prospective impact on career prospects. CTC may be useful to explain the phenomenon—its causes and outcomes. Trying to understand how careers develop based solely on linear predictions, simplistic cause and effect logic, and predetermined sequential stages is an unrealistic approach. Chance events, which are undisputable elements of reality, can take careers into unanticipated realms. This dictates a need to understand careers in a holistic, comprehensive manner, which includes the impact of chance events. Due to the elusive nature of luck, most scholarly work avoided studying it. Other terms that describe chance events include serendipity, happenstance, and synchronicity (Betsworth & Hanson, 1996; Guindon & Hanna, 2002).

The nature of chance events is that they are accidental or unintentional and unplanned by definition; thus, their anticipated impact is not always clear. Until now, the

literature did not delve into the various possibilities of the nature of the chance event and its impact. For example, at the individual level, this could be an unplanned meeting with an influential person (perceived as positive) or an accident (perceived as negative). It can be organization-related, such as entering a new venture (involving relocation) or a failed product (leading to redundancy), or related to national events, such as the end of a political era as a positive event (Kindsiko & Baruch, 2019), or a natural disaster as a negative event, which may nevertheless end with various possible outcomes (see Farny et al., 2019). The current situation with COVID-19 represents a chance event that has undoubtedly already impacted and will impact in the future (negatively but also positively) the careers of numerous people (Akkermans et al., 2020). Hennekam et al. (2021) demonstrate how the first lock-down period in France led to significant changes in both work and family identities. The authors describe how some unexpected positive consequences related to introspection concerning individuals' needs and desires led to a re-examination of their work and family identities. Therefore, the COVID-19 pandemic resulted in a positive identity change (Hennekam et al., 2021). Though it is assumed that the nature of the event would determine its career impact, it is unclear how and why certain career outcomes emerge as a result. Much depends on the way the event is perceived by those who encounter it and how they respond to it. Different events can be perceived subjectively as positive or negative by each individual (Stambulova & Samuel, 2020).

The perceived nature of chance events in career

Further, the reactions to chance events vary, depending on many factors—the severity or meaningfulness of the event, whether it was perceived as positive or negative, and the personality and other characteristics of the individual who might have experienced it (Tolentino et al., 2014). These factors could have a significant impact on the way the career actor may perceive and react to an event. For example, to use the right contacts, individuals need to find ways to meet them and benefit from the encounter (Kiazad et al., 2020). Career actors are individuals, institutions, and national and global bodies that interact with each other as a career ecosystem (Baruch, 2015).

Chance events occur fairly frequently, but not all of them have a profound impact on careers, and the scope of the phenomenon is unknown. In a recent study, 30% of the participants reported a significant chance event that had influenced their career (Kindsiko & Baruch, 2019). Other studies refrain from such quantification, leaving open the question as to how common it is to experience a chance event that impacts one's career trajectory and/or success. Furthermore, the literature rarely considers factors that may affect the manner by which chance events may influence careers, for example, by weakening, reversing, or strengthening their impact.

The nature of career success

The careers literature identifies a number of constructs that allow us to evaluate careers, to study the influence of chance events on career progression. Hierarchical level attained and earnings are archetypal ways of measuring objective career success, as they represent societal perceptions of success that are externally verifiable (Frederiksen & Kato, 2018; Ng & Feldman, 2014); hence, they must be included in a study of the career consequences of major chance events. SCS, on the other hand, refers to individuals' own appraisal of their achievements in their work lives and is seen as a necessary complement to objective evaluations (Baruch & Bozionelos, 2011). Subjective feelings of success are gaining in importance as careers are becoming increasingly personalized with traditional career ladders less available (Ng & Feldman, 2014; Spurk et al., 2019).

Employability as perceived by the individual is an additional index of success, referring to the perceived ability to maintain or find employment under various situations (Forrier & Sels, 2003). Employability is a key indicator of success in the present era of frequent change and uncertainty in professional life and arguably the best criterion of the prospects for a career to sustain its course (Bozionelos et al., 2020; De Vos & Van der Heijden, 2015); its inclusion here in a study of the career consequences of major chance events was therefore considered to be imperative. Finally, there is increasing attention on work and employment outcomes that go beyond simple achievement and output but instead signal a healthy relationship with work life (e.g., De Vos et al., 2020; Guest, 2017; Ng & Feldman, 2014). Such measures are seen as equal in importance to traditional indicators of success because apart from other uses they are reflective of whether the individual is able to sustain a career in the long term (De Vos et al., 2020). Burnout, which represents the degree to which the person has a healthy relationship with their work life, was chosen to represent this aspect of success.

The role of protean career orientation and growth mindset

Regarding factors that can influence the way individuals react to and approach the chance event, protean career orientation and growth mindset were chosen. These represent chronic dispositions that can influence career outcomes by disposing people to think and act in particular ways (Dweck & Yeager, 2019; Hall et al., 2018; Heslin et al., 2020). The protean orientation and growth mindset being of a dispositional nature signify that they are internal characteristics that are relatively stable over time but can be primed by particular contextual cues that can include positive or negative events (Heslin & Keating, 2016; Waters et al., 2014).

Protean career orientation reflects the desire to exercise self-direction and drive one's career according to

one's own personal values (Briscoe et al., 2006). Tendency to accept or set career goals that are in line with their own preferences and assume personal responsibility for meeting these goals provides a seeming career advantage for those strong in protean orientation (Hall, 2002). Indeed, empirical research, reviewed by Gubler et al. (2014), shows a relationship with measures of objective and SCS. Because of the desire to be in charge of their own careers, individuals with strong protean orientation tend to be more adaptive and persevering in the face of adverse, uncertain, or unexpected events (Chui et al., 2020; Crowley-Henry et al., 2019; Hall et al., 2018; Karolidis et al., 2020). Thus, protean career orientation appears important in the context of chance events, which are typically unexpected, and may impose new challenges and demands for redirection.

The growth mindset is a construct that came to the foreground relatively recently yet also appears to be a promising factor in the context of chance events in careers. Mindsets reflect people's assumptions about the malleability or developability of human capacities and abilities and influence how people approach and act towards challenging situations because they frame the way they perceive themselves, others, and the situation at hand (Dweck, 2017). A fixed mindset represents the view that human attributes such as abilities, capacities, and other characteristics are largely static and cannot be changed or nourished, while a growth mindset assumes that such attributes can be changed, nourished, or improved (Dweck, 2017). Mindset Theory (Dweck, 2017; Dweck & Yeager, 2019) and empirical evidence (Burnette et al., 2013; Zingoni & Byron, 2017) suggest that people with a growth mindset are more likely to view difficulties as opportunities and thus be motivated to exert effort and persist towards meeting the challenge. For example, a growth mindset as opposed to a fixed mindset was associated with greater motivation to try to perform a task again following failure (Song et al., 2020). Because it signifies belief in personal improvement (e.g., via expending effort, seeking support, and competencies development) and relates to seeking challenges and the capacity to persevere and bounce back, a growth mindset should play a role in how people react to unpredictable events that often require dynamism and capacity to redirect their energies in order to overcome or take advantage of the ensuing situation.

Chance events and career outcomes

The career outcomes of a chance event could vary widely. They could be highly positive, by opening new routes to the benefit of the career. For example, a chance encounter with someone whose small firm or department has an attractive yet challenging opening may lead to a change in one's employer that can enhance objective career success (e.g., earnings and level of responsibility), employability (challenging roles are associated with increases in facets of employability, such as professional expertise; Bozionelos et al., 2018; van der Heijden & Bakker, 2011), and SCS (feelings of accomplishment with the move and the new role and beliefs for better future prospects; Gattiker & Larwood, 1986). Yet chance events, positive or negative, may also be detrimental to careers. For example, winning the lottery is considered a very positive event, yet lottery winners are not always happy and their lives and careers may not benefit from the win (Kuhn et al., 2011). We therefore challenge the idea that positive chance events will exclusively lead to positive career outcomes and negative chance events will only end with negative career outcomes.

Research questions

The above discussion led us to form three research questions: First, what is the prevalence and nature of the various perceived types of chance events? (RQ1); second, what is the perceived impact of chance events on career outcomes? (RQ2); and third, how do individual characteristics relate to chance events and career outcomes? (RQ3).

METHOD

The data for this study were collected using a questionnaire/survey, including some open-ended questions. We used quantitative methods, but we also conducted a qualitative analysis of the answers to the open-ended questions.

Sample and procedures

Data from 682 individuals (365 or 53.52% men and 317 or 46.48% women) who responded to a survey regarding their careers were analyzed. The survey had been sent out in collaboration with the alumni association of an elite Business School in France (a *Grande École*). Participants were working in a variety of industries and functions (all major industries were represented, ranging from agriculture and food production to financial services, manufacturing, and the public sector, among others) and as alumni of the Business School had careers in managerial and professional roles. Response rate was approximately 34%, in line with the norm in response rate for surveys of managers (Cycyota & Harrison, 2006) and consistent with other studies of business school alumni (e.g., Sturges et al., 2003).

Participants responded to the binary question (yes/no) of whether they had experienced a chance event that had significantly influenced their careers. Those who responded "yes" were asked to identify the type of chance

event (positive vs. negative) and its perceived impact on their careers (positive vs. negative). These were supplemented by two open-ended questions, where respondents were asked to write freely and provide detailed information about the event itself and its consequences.

An inductive content analysis of the qualitative answers was performed to evaluate our approach, as suggested by Braun & Clarke (2016). The answers to the open questions constituted qualitative material that was coded by two researchers to increase reliability. The coding was carried out in several steps. In the first phase, codes were used to identify the positive or negative perception (by the respondents) of the events and their consequences. A more detailed analysis of these categories was carried out in a second phase, to differentiate (in terms of their nature) the types of events and their consequences. The findings are presented in two steps: qualitative content analysis of the responses and quantitative analysis of comparison across the categories of options: chance event versus no chance event, positive chance event versus negative chance event, and the four combinations within the chance event category (i.e., negative event/positive outcome, etc.).

Measures

The questionnaire contained open-ended questions for the qualitative-inductive part and validated scale measures of constructs. The language of the questionnaire was French. When a validated French version of the measure existed (e.g., for growth mindset), that measure was utilized. Otherwise, we employed a translation/back-translation method. Response format was a 7-point Likert scale, unless otherwise specified.

Questions also included demographic details, such as gender (1: male, 2: female) and age (1: younger than 27 years, 2: 27–30 years, 3: 31–35 years, 4: 36–40, 5: 41–45, 6: 46–50, 7: 51–55, 8: 56–60, 9: 61–65, 10: 66–70 years), along with questions on objectively verifiable information, such as earnings, which helps reduce the possibility of common method bias (Podsakoff et al., 2003; but also Bozionelos & Simmering, 2022).

Objective career success was measured with two indices, current hierarchical level (1: operational worker, 10: executive director) and total annual earnings (1: less than €30,000, 2: €30–40,000, 3: €40–50,000, 4: €50–60,000, 5: €60–70,000, 6: €70–80,000, 7: €80–100,000, 8: €100–120,000, 9: €120–150,000, 10: €150–200,000, 11: more than €200,000), in both cases statistically controlling for graduation year.

SCS was measured with seven items (sample item: "I am going to reach all my career goals") from Gattiker and Larwood (1986), which have demonstrated validity as a comprehensive measure of SCS (Bozionelos, 2004). Cronbach's α was 0.76.

Employability was measured with seven items from the self-referent version of Van der Heijde and Van der Heijden's (2006) employability instrument (sample item: "I anticipate and take advantage quickly of changes in the work environment"). Cronbach's α was 0.73. A confirmatory factor analysis (CFA) indicated adequate discriminant validity between the employability and the SCS measure [χ^2 (63) = 170.783, $p < 0.001$, CFI = 0.958, TLI = 0.939, SRMR = 0.041, RMSEA = 0.050].

Burnout was measured with a single item ("Indicate the degree to which you have been in a burnout situation"). Single-item measures of burnout demonstrate comparable validity to established burnout scales (West et al., 2009).

Protean career orientation was measured with six items (sample item: "I navigate my own career according to my plans") from Baruch's (2014) scale. Cronbach's α was 0.79.

Growth mindset was measured with six items from Chiu et al.'s (1997) instrument (sample item: "Everyone is a certain kind of person, and there is not much they can really change about that", reverse scored). Cronbach's α was 0.89. A CFA also showed that the two measures, growth mindset and protean career orientation, were distinct [$\chi^2(48) = 80.12$, $p < 0.01$, CFI = 0.990, TLI = 0.986, SRMR = 0.033, RMSEA = 0.031].

FINDINGS

Phase I: Qualitative analysis

Chance event

Of the 682 participants, 424 or 62.17% (240 or 56.6% men and 184 or 43.4% women) indicated they had experienced a chance event that had significantly influenced their careers. Of these 424 individuals, 414 (232 or 56.07% males and 182 or 43.93% females) indicated the nature of the event: positive (320 or 77.29%) versus negative (94 or 22.71%) and the nature of the impact of that event in their careers: positive impact (377 or 91.06%) versus negative impact (37 or 8.94%). Furthermore, 200 of these 414 individuals responded to the open-ended questions, providing verbal answers to use in qualitative analysis.

There was a significant difference in the probability of indicating positive versus negative career impact (outcome) as a result of a positive versus negative chance event [$\chi^2(1) = 0.58.5$, $p < 0.001$]. It was much more likely that a positive event had a positive instead of a negative impact on the career (310 vs. 10, respectively) than a negative event had a negative instead of a positive impact on the career (27 vs. 67, respectively).

Regarding gender, there was only one significant gender difference: women (184 vs. 133 for chance vs. no chance event, ratio 1.38/1) were significantly more likely than men (240 vs. 125 for chance vs. no chance event, ratio 1.92/1) to indicate a chance event in their careers [$\chi^2(1) = 4.29$, $p < 0.05$]. There were no other significant gender differences.

A typology of chance event scenarios

We identified four types of possible scenarios based on two dimensions: whether the event was perceived as negative versus positive and whether the impact was perceived as positive versus negative (2 × 2 typology). These are presented in Table 1 and explained below.

Characteristics of quadrant 1: Negative event/positive impact

This quadrant represents an intriguing as well as positive and meaningful consequence for career management—for individuals—and also for institutions. The 67 individuals in this quadrant (who experienced a negative chance event but reported a positive career impact) constituted a considerable proportion of cases: 16.18% of all cases and the outcome of around 7 out of 10 negative events (71.28%).

Negative events of a professional nature varied widely, from restructuring, downsizing, or sudden closure of an organization to managerial issues such as a toxic new manager. The positive outcomes ranged from adopting a new career stance to changing company and/or sector that proved beneficial for the career. Here are two representative cases:

A female manager reported:

> *The firm I was working for shut under very disturbing conditions (criminal allegations, social and personal conflicts). That forced me to think of other options, I registered for, took and passed a national exam, which opened new opportunities for me.* (female, 36 to 40 years, Public Sector).

A male respondent shared the following experience:

> *I was fired from a prestigious finance position in London during the financial crisis. I was forced to look for a new position and I finally accepted a job in Aix-en-Provence that was less prestigious and less profitable. I did not take it well and I hoped that this transition would be as short as possible. Finally, my personality and my involvement were noticed by senior management in Germany and when there was a renewal of the management structure I was offered the chance to manage the transition, then the solar side of the business (with 40 people) and finally the general management of a workforce of 75 people. So, I had responsibilities and remuneration that I would never have hoped for in London, while being in Aix-en-Provence.* (male, 36 to 40 years; Energy sector).

Reports of negative events of a personal nature were rare; in the few cases reported, they included personal health or accidents, serious family problems, and in a single case the death of a loved one. The positive outcomes typically pertained to stepping back to reflect, adjusting priorities, or becoming more resolute and taking matters into one's own hands.

> *A serious family situation that forced me to retire for a few months from the world of work. I took a step back in managing my day-to-day role and my career wishes. I moved to another firm in a position with higher responsibility and a significant pay increase.* (female, 36 to 40 years; Auditing and Financial Services).

Characteristics of Quadrant 2: Positive event/positive impact

Most respondents (310) indicated positive outcomes resulting from positive chance events; this combination represented three quarters (74.88%) of all cases and the outcome of 19 out of 20 (specifically, 96.88%) cases of a positive event.

The majority of events of a professional nature pertained to professional encounters that led to opportunities for career development in terms of networking, coaching, or sponsoring, as well as information about job openings. The positive career outcomes ranged from a promotion to new career challenges, boosting the employee's confidence.

One of the female respondents (31 to 35 years; Health Sector) explained:

> *A chance encounter with the CEO of the company [I was working for] who allowed me to show my work, which won me a promotion.*

Personal reasons mainly included private encounters. Less frequently, personal reasons pertained to international mobility following a spouse or a partner or very rarely family events such as the unplanned arrival of a child. The positive outcomes were similar to those for events of a professional nature such as a promotion, a more fulfilling job, a career change or a new start in a

TABLE 1 The typology of the four quadrants

	Negative event	Positive event
Positive impact	Quadrant 1	Quadrant 2
n (proportion within event)	67 (71.28%)	310 (96.88%)
Males/females	36 (53.73%) /31 (46.27%)	176 (56.77%) /134 (43.23%)
Negative impact	Quadrant 3	Quadrant 4
n (proportion within event)	27 (28.72%)	10 (3.13%)
Males/females	14 (51.85%) /13 (48.15%)	6 (60%) /4 (40%)

better direction, or a boost in motivation to succeed or in self-confidence.

> *When I was still a student, a neighbor in the stairwell put me in touch with his niece, who gave me a career advice appointment. She strongly encouraged me to follow the specialized master's degree that tempted me. This is clearly what brought me to where I am today, and I am not sure that I would have enrolled in this specialized master without my meeting with that woman.* (female, 27 to 30 years; Care Sector)

Characteristics of Quadrant 3: Negative event/negative impact

Quadrant 3 represented the outcome of three out of 10 (28.72%) cases of negative events and overall approximately 1 in 15 of all cases (6.52%). It was rather surprising that the number of cases in Quadrant 3 was lower than in Quadrant 1 (i.e., negative event leading to a positive outcome).

As in Quadrant 1, negative events of a professional nature included company restructuring, loss of one's job, and problems in relationships with superiors including serious disagreement with top management. The negative outcomes were difficulties in finding a job of similar standing, a blocked career path or unfavorable change of role, and deterioration of employment conditions. A typical example:

> *I experienced redundancy. The negative consequence was a long period of unemployment.* (female, 27 to 30 years; Auditing and Financial Services)

Negative events of a personal nature were comparatively fewer and mostly related to health problems for oneself or a loved one. Personal negative events unrelated to health included moving abroad because of marriage/personal issues and "out of the blue" divorce. Outcomes were career slowdown, stagnation, or deterioration of the employment situation:

> *Because of illness I quit my job to go abroad. I moved to [name of country] just before the crisis hit this country, and it was one of the hardest hit countries in Europe. Moreover, French qualifications are totally unknown to [name of country] employers.* (male, 31 to 35 years, Agriculture-Food)

Characteristics of Quadrant 4: Positive event/negative impact

A very small number of cases (10 overall) fell into this quadrant. They represented close to two out of 100 of total cases (2.42%) and the outcome of slightly more than 3 out of 100 (3.13%) events of a positive nature.

Positive events of a professional nature mostly pertained to seeming opportunities for internal or external mobility. Positive events of a personal nature were associated with personal or family matters. Negative outcomes were mostly related to career stagnation, demotion, or a career that was perceived as less fulfilling. Two representative cases:

> *I met a CEO who made me a job offer. The CEO was unreliable and the information he gave me was erroneous. I eventually resigned.* (male, 31 to 35 years; Digital Business)

And

> *A personal relationship that made me change countries. Because of this I probably sacrificed a well-planned career and a very interesting job in a large French group. I had difficulty for two years in finding a job that really met my skills. I found a job in the meantime, for one-and-a-half years, but it was nowhere near the level of responsibility I could have had.* (female, 31 to 35 years; General management).

Phase II: Quantitative analysis

The second phase of the study included statistical comparisons in career-related outcomes and dispositional characteristics (i.e., protean career orientation and growth mindset) between groups that represented the categories created in Phase I. First, we compared those who did not report a chance event versus those who reported such an event, then those who reported a positive versus a negative event, and finally the four possible scenarios. Due to the exploratory nature of our study and the fact that extant theory and empirical research on the subject is very limited, we refrained from developing explicit hypotheses. Nevertheless, we held some general expectations.

We expected that participants who did not report a significant chance event would hold more favorable subjective evaluations, including higher employability, higher SCS, and lower burnout and would have a higher growth mindset in comparison with those who reported a chance event. We believed that they would feel more in control of their own fate, which is generally associated with greater well-being (De Quadros-Wander et al., 2014) including greater resistance to burnout (Gabriel et al., 2020). Similarly, growth mindsets are associated with higher perceived control than fixed mindsets (e.g., Burnette et al., 2013). For those who reported chance events, we expected differentiations across the quadrants. For example, we expected that those in Quadrant 1 (negative event/positive impact) would score higher than Quadrants

3 (negative event/negative impact) and 4 (positive event/negative impact) in protean orientation and in growth mindset, because these psychological attributes are associated with the tendency to view difficulties as challenges and with perseverance in the face of challenge and uncertainty. Finally, we held the expectation that those in Quadrant 4 would score lowest in subjective outcomes (lowest employability and SCS, highest burnout).

Results

Tables 2 and 3 present descriptive statistics and correlations across study variables for all groups that were created.

The main data analysis technique was Analysis of Co-variance (ANCOVA). Graduation year and gender were used as controls. Age was strongly related to graduation year ($r = 0.93$), so using both would be redundant. *T*-tests on the corrected means were utilized for post hoc comparisons. In the very few cases where respondents failed to respond to an item from a single scale, we retained the respondent and treated the specific scale as missing data. For that reason, sample sizes were slightly unequal across analyses.

Comparisons between chance event versus no chance event

Significant differences were identified in most comparisons. With respect to career success, those participants who recalled a chance event were at a higher hierarchical level, $F(1,676) = 14.77$, $p < 0.001$) and reported greater SCS, $F(1,676) = 6.35$, $p < 0.05$), though they did not report higher earnings, $F(1,676) = 0.80$, *ns*. The chance event group also reported higher employability, $F(1,675) = 14.56$, $p < 0.001$. On the other hand, they were more likely to report burnout than those who did not indicate a chance event, $F(1,675) = 5.53$, $p < 0.05$. Finally, the chance event group reported stronger protean career orientation, $F(1,659) = 12.56$, $p < 0.001$), but they did not score significantly higher on growth mindset, $F(1,660) = 2.54$, *ns*.

Generally, the pattern of these results suggested better career-related outcomes and more favorable career-related psychological orientations for those who reported a chance event (regardless of its nature and impact), the notable exception being that those who reported a chance event indicated more burnout.

Comparisons between positive versus negative chance events

In these comparisons, recognizing that highly unequal sample sizes (that were beyond our control) reduce the

TABLE 2 Intercorrelations (all participants in lower triangle, participants who indicated a chance event in upper triangle)

		1	2	3	4	5	6	7	8	9	10
1.	Age	—	−0.14**	0.92***	−0.15**	0.33***	0.01	0.04	−0.01	0.01	0.12*
2.	Gender	−0.12**	—	−0.09†	0	−0.33***	−0.12*	0.21***	−0.12*	−0.06	−0.01
3.	Graduation year	0.93***	−0.08	—	0.14**	0.32***	0.02	0	−0.01	0.01	0.14**
4.	Hierarchical level	−0.14***	0	−0.13**	—	−0.04	−0.04	0.02	−0.02	0.06	−0.11*
5.	Earnings	0.36***	−0.33***	0.35***	−0.05	—	0.38***	−0.09†	0.20***	−0.01	0.23***
6.	Subjective success	0.01	−0.14***	0.01	−0.05	0.40***	—	−0.13**	0.47***	0.10*	0.51***
7.	Burnout	0.05	0.18***	0.03	0	−0.05	−0.12**	—	−0.07	−0.01	0.07
8.	Protean orientation	−0.04	−0.13***	−0.05	−0.03	0.19***	0.48***	−0.06	—	0.12*	0.51***
9.	Growth mindset	0.01	−0.11**	−0.01	0.06	0.05	0.10*	−0.03	0.10**	—	0.12*
10.	Employability	0.13**	−0.05	0.12**	−0.08*	0.23***	0.42***	0.07†	0.53***	0.09*	—

***$p < 0.001$.
**$p < 0.01$. *$p < 0.05$. †$p < 0.1$.

TABLE 3 Descriptive statistics for participants who indicated ($n = 424$) and did not indicate ($n = 258$) a chance event, and for participants who indicated a positive ($n = 320$) and a negative ($n = 94$) chance event. Asterisks indicate significant differences based on *t*-tests

	Chance event		No chance event		Positive chance even		Negative chance event	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Years since graduation	14.24	8.47	13.07	7.93	14.18	8.55	14.28	8.31
Hierarchical level	4.24	2.41	3.45	1.84***	4.18	2.39	4.30	2.48
Earnings	5.95	2.78	5.52	2.71	6	2.77	5.70	2.83
Subjective career success	34.87	7.02	33.39	6.28*	35.38	6.56	33.27	8.08*
Burnout	4.63	2.16	4.30	1.96*	4.57	2.15	4.89	2.18
Protean career orientation	33.02	5.31	31.53	4.68***	33.24	5.23	32.47	5.13
Growth mindset	20.91	7.30	19.92	6.64	21.21	7.22	20.14	7.58
Employability	39.28	4.97	37.69	4.92***	39.41	4.87	38.84	5.08

***$p < 0.001$.**$p < 0.01$.*$p < 0.05$.$^{\dagger}p < 0.1$.

TABLE 4 Descriptive statistics for the four quadrants (positive vs. negative event × positive vs. negative career impact)

	Quadrant 1 ($n = 67$)		Quadrant 2 ($n = 310$)		Quadrant 3 ($n = 27$)		Quadrant 4 ($n = 10$)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Years since graduation	14.49	8.80	14.34	8.61	13.74	7.06	9.40	4.74
Hierarchical level	4.67	2.46 [a]	4.21	2.41 [b]	3.37	2.32 [a b]	3.30	1.64
Earnings	6.04	2.85 [a]	6.05	2.75 [b]	4.85	2.64 [a b]	4.50	2.84
Subjective career success	35.42	7.19 [a c]	33.52	6.47 [b d]	27.93	7.79 [a b]	31.20	8.15 [c d]
Burnout	4.57	2.16 [a]	4.59	2.17 [b]	5.70	2.07 [a bc]	3.80	1.55 [c]
Protean career orientation	33.77	4.65 [a c]	33.36	5.23 [b d]	29.23	4.92 [a b]	29.90	4.38 [c d]
Growth mindset	20.18	7.75	21.22	7.23	20.04	7.28	20.70	7.39
Employability	39.90	4.98 [a]	39.48	4.87 [b]	36.22	4.41 [a b]	37.20	4.76

Note: Superscripts with the same letter indicate that the difference between quadrants was significant or marginally significant ($p < 0.1$).

probability of identifying significant relationships, we also reported whether mean differences appeared sizeable in addition to whether they were significant.

The positive chance event group reported significantly higher SCS, $F(1,408) = 6.37$, $p < 0.05$. Differences in current hierarchical level, $F(1,408) = 0.24$, *ns*, and earnings, $F(1,408) = 0.85$, *ns*, were not significant, and mean scores were quite close on these indices. Neither were there significant differences in employability, $F(1,407) = 1.03$, *ns*, or burnout, $F(1,408) = 1.31$, *ns*; nor could the mean scores on these variables be considered appreciably different ($M = 39.41$ vs. 38.84 for employability and $M = 4.57$ vs. 4.89 for burnout). Similarly, the differences in protean career orientation, $F(1,396) = 1.5$, *ns*, and growth mindset, $F(1,400) = 1.37$, *ns*, were not significant either. Nevertheless, the means in growth mindset ($M = 21.21$ for the positive event vs. 20.14 for the negative event group) were noticeably divergent.

Comparisons across the quadrants within the chance events scenarios

Means and standard deviations for the quadrants are presented in Table 4.

ANCOVAs that indicated significant differences across quadrants were followed up with *t*-tests on the corrected means (i.e., the means adjusted for the impact of the covariates). Welch's adaptation of Student's *t*-test was utilized because it is more reliable with unequal sample sizes (Derrick et al., 2016). As noted, because of the unequal cell sizes, we also reported whether the differences in means appeared sizeable in addition to being significant.

With respect to career success, the ANCOVA suggested an overall marginally significant difference across quadrants in hierarchical level, $F(3,406) = 2.23$, $p < 0.08$. Quadrant 1 (negative event, positive outcome) scored highest followed by Quadrant 2 (positive event, positive outcome). Though the distance between their means was fairly substantial (corrected $M = 4.66$ vs. 4.21), the difference was not significant, $t(97) = 1.58$, *ns*. Quadrants 1 and 2 scored noticeably higher than Quadrant 4 (positive event, negative outcome; corrected $M = 3.76$) and Quadrant 3 (negative event, negative outcome), which scored lowest (corrected $M = 3.46$). In terms of significance, the difference between Quadrant 1 and Quadrant 3 was significant, $t(48) = 2.46$, $p < 0.05$, and between Quadrant 2 and Quadrant 3 was marginally significant, $t(31) = 1.73$, $p < 0.10$. None of the other differences, however, perceptively sizable, were significant.

The ANCOVA suggested a marginally significant difference across quadrants in earnings, $F(3,406) = 2.23$, $p < 0.10$. Quadrants 1 and 2 scored highest and identically (corrected $M = 6.05$ for both). Quadrant 3 (corrected $M = 4.96$) and Quadrant 4 (corrected $M = 4.87$) followed with substantially lower earnings. The differences between Quadrants 1 and 3, $t(48) = 1.92$, $p < 0.06$, and Quadrants 2 and 3, $t(31) = 2.17$, $p < 0.05$, were marginally significant and significant, respectively. No other differences were significant. Regarding SCS, the ANCOVA indicated an overall significant difference between the quadrants, $F(3,406) = 11.61$, $p < 0.001$. Means for Quadrant 2 (corrected $M = 35.49$) and Quadrant 1 (corrected $M = 35.45$) were nearly identical and the highest. Quadrant 3 (corrected $M = 27.98$) scored lowest of all and significantly lower than Quadrant 2, $t(31) = 5.58$, $p < 0.001$, and Quadrant 1, $t(48) = 4.89$, $p < 0.001$. Quadrant 4 (corrected $M = 31.08$) also scored noticeably higher than Quadrant 3 on SCS, but the difference was not significant, $t(16) = 1.25$, *ns*. The differences between Quadrants 1 and 4 and between Quadrants 2 and 4 were marginally significant, $t(12) = 1.92$ $p < 0.08$ and $t(10) = 2.04$, $p < 0.07$, respectively.

There was an overall significant difference in employability, $F(3,405) = 5.31$, $p < 0.01$. Quadrant 1 scored highest with Quadrant 2 following closely (corrected $M = 39.87$ and 39.48, respectively), $t(97) = 0.61$, *ns*. Quadrant 3 scored lowest (corrected $M = 36.24$); its differences from Quadrant 1, $t(48) = 3.29$, $p < 0.01$, and Quadrant 2, $t(31) = 3.33$, $p < 0.01$, were significant, but its difference from Quadrant 4, which scored somewhere in-between (corrected $M = 37.48$), was not, $t(16) = 0.69$, *ns*. Though fairly large, the differences between Quadrant 4 and Quadrants 1, $t(12) = 1.45$, *ns*, and 2, $t(10) = 1.27$, *ns*, were not significant either. The also ANCOVA suggested significant differences across quadrants in burnout, $F(3,406) = 2.68$, $p < 0.05$. Quadrant 3 (corrected $M = 5.67$) scored highest with a noticeable and significant difference from Quadrant 1 (corrected $M = 4.48$), $t(48) = 2.34$, $p < 0.05$, and Quadrant 2 (corrected $M = 4.61$), $t(31) = 2.51$, $p < 0.05$, whose means were close. Quadrant 4 scored by far the lowest on burnout (corrected $M = 3.86$), but it was only its difference from Quadrant 3—the highest scorer—that was significant, $t(16) = 2.32$, $p < 0.05$.

The ANCOVA indicated a significant overall difference in protean career orientation, $F(3,394) = 7.19$, $p < 0.001$. Quadrants 1 and 2 scored close (corrected $M = 33.8$ and 33.37, respectively, $t(94) = 0.62$, *ns*) and noticeably higher than Quadrant 3 (corrected $M = 29.26$) and Quadrant 4 (corrected $M = 29.7$), which also scored close to one another, $t(16) = 0.23$, *ns*. The difference between Quadrant 3 and Quadrants 1, $t(46) = 3.86$, $p < 0.001$, and 2, $t(30) = 4.36$, $p < 0.001$, was significant. The difference between Quadrant 4 and Quadrants 1, $t(12) = 2.38$, $p < 0.05$ and 2, $t(10) = 2.50$, $p < 0.05$, was also significant. Finally, for growth mindset, the ANCOVA suggested no differences across quadrants, $F(3, 398) = 0.48$, *ns*. Quadrant 2 (corrected $M = 21.19$) scored highest with some distance from the others (corrected $M = 20.2$, 20.07 and 20.65 for Quadrants 1, 3, and 4, respectively), but no difference was significant.

DISCUSSION

Scholars have pointed out the role and importance of chance events in life in general and in careers and have called for the subject to be studied empirically (Pryor & Bright, 2011). Our study posed several questions that looked at the scope of the phenomenon, the variation of type of chance event (positive vs. negative) and its impact (positive vs. negative) on the careers as perceived by the career actors themselves, and how these and their combinations respond to career-related outcomes and psychological orientations. It should be borne in mind that the distinction of "positive versus negative" perception is a simplification of otherwise more complex and nuanced perception, where many shades of gray rather "black or white" are condensed into an overall dichotomic evaluation. By providing answers to these questions, we believe that this study makes contributions to career studies.

First, the overall prevalence of the phenomenon of chance events was very substantial. Six out of ten (62.17%) participants indicated a significant chance event that had influenced their careers. This proportion is about twice the level reported in Kindsiko and Baruch (2019) whose study, however, covered academic PhDs, clearly a different population. Most chance events, nearly 80%, were positive and nearly always had a positive career impact. Still, for about 5% of positive events, the eventual career impact was seen as negative. The pattern of findings with respect to negative chance events was reversed, though with less intensity: in 70% of the cases, a negative event had a positive eventual impact on the career, a phenomenon identified earlier (Klehe et al., 2011).

The differences between those who experienced chance events versus those who did not were arresting; the direction in most of them was unexpected. In contrast to our general expectations (here we stress that these were expectations and not hypotheses), those who did not report a significant chance event were lower on earnings and hierarchical level, typical indicators of career success (Spurk et al., 2019), and lower on employability, which is often seen as an indicator of career success and career sustainability (Bozionelos et al., 2020; De Vos et al., 2020). In addition, they scored lower on protean career orientation, which is believed to increase the probability of favorable career outcomes. On the other hand, in contrast to the overall pattern, those who did not report a significant chance event reported lower burnout, an indicator of psychological well-being in the context of work and career (De Vos et al., 2020). A potential

interpretation of the pattern of these findings is in terms of greater risk that may be associated with careers that have been affected by chance (vs. no chance) events. The chance factor represents uncertainty, an indication of risk. Generally, the greater the risk, the greater the potential returns (e.g., Wang & Yang, 2013; Yang, 2019). It is likely that those who reported influential chance events had taken more risks in their careers (e.g., working for a newly founded or small enterprise with prospects instead of a large mature firm or the public sector, seeking stretching yet career-boosting assignments and moves). This risk-taking may have been translated into more favorable career outcomes. The fact that the change group scored higher on protean career orientation, which makes them more likely to look for meaning, growth, and challenge in their careers (Hall et al., 2018), is in line with this explanation. Furthermore, the chance event group also reported higher burnout, which is also corroborative of this version (risky and challenging careers may bring greater gains but also more stress). However, this is simply a post hoc explanation for the finding, whose veracity should be tested in future studies. To sum up, the overall pattern of our findings suggested an advantage regarding career-related outcomes (except with respect to burnout) and psychological attributes for people who pointed to a chance event, and this should open avenues for further investigation.

Comparisons between those who reported a positive versus a negative chance event were less revealing. Only one difference was significant: the negative event group reported significantly lower subjective success. The rest of the differences were not significant, nor were visibly different, with the possible exception of growth mindset. There is some evidence that dispositional tendency (represented by factors such as negative affectivity and low emotional stability) prompts the adoption of a negative outlook on professional life (Gerhart, 2005)—reflected in lower scores on subjective satisfaction measures regardless of actual facts (i.e., some individuals are consistently less happy than their counterparts despite achieving objectively the same). It may therefore be the case that those who identified a negative event were generally more likely to focus on negative aspects of situations. Nonetheless, these comparatively slight differences between the two groups, positive versus negative chance event, imply that the nature of the event by itself, positive versus negative, does not represent a basis for reliable differentiation. The combination of the nature with the impact of the event (i.e., the four quadrants), however, enabled a more fine-grained comparison that revealed a number of noteworthy patterns of differences.

Using the positive event-positive impact group (i.e., Quadrant 2) as benchmark, those who had experienced a negative event that nevertheless ended with a positive outcome (Quadrant 1) were rather easily distinguishable. In particular, Quadrant 1 scored higher, whether significantly so or not, than the other quadrants, including Quadrant 2, on most career-related outcome variables (hierarchical level, subjective success, and perceived employability), and also on protean career orientation. Furthermore, their scores on burnout were the second lowest (only Quadrant 4 scored lower). As far as the favorable career-related outcomes are concerned, these could be attributed to the experience of Quadrant 1 individuals in overcoming career hurdles and benefiting from this experience (Mishra & McDonald, 2017; Waterman et al., 1994). With respect to protean orientation, this finding corroborates suggestions that it helps people overcome career predicaments. Based on the findings of their longitudinal study on re-reemployment, Waters et al. (2014) concluded that high scorers on protean orientation tend to experience further temporary increases following the unfortunate event, which helps them overturn or rectify the situation, after which their protean orientation recedes to the levels before the event.

It was by no means a surprise that the negative event/negative impact scenario (Quadrant 3) scored noticeably lower—whether statistically significantly or not—on most career outcome variables. A more intriguing case, however, was Quadrant 4 (positive event/negative impact). These individuals were lowest on both objective career success measures (i.e., hierarchical level and, especially, earnings) but also reported by far the lowest burnout of all quadrants. On the other hand, compared with Quadrant 3 (negative event/negative impact), they scored noticeably higher on SCS and perceived employability. The pattern, which was against expectations, can be succinctly described as follows: low objective success, low burnout, indifference with respect to SCS. This may reflect withdrawal and detachment from career and work-related concerns, a state of compromise. Emotional withdrawal from work protects against felt pressure and reduces burnout caused by perceived failure to cope with demands (Boekhorst et al., 2017). This might have been the psychological reaction of Quadrant 4's reflection on their failure to take advantage of a favorable event.

Theoretical contribution

We contribute to career theory by making it more comprehensive and coherent, the current state of career theory being highly fragmented (Gunz et al., 2020b; Lee et al., 2014). Our study extends the coverage of career constructs that are employed as antecedents and contextual factors in explaining career-related phenomena and their outcomes. Chance events proved to be highly prevalent, and their role emerged as significant and meaningful. All participants were graduates of the same elite institution; hence, they had exactly the same starting point in their careers, yet chance events might significantly contribute to explaining differences in their objective and subjective career outcomes.

Though career theory has moved away from considering careers as scheduled and logically sequenced series of events (e.g., Rosenbaum, 1979) towards a theory that takes more account of changes in job demands, in the labor market and in personal circumstances (De Vos et al., 2020; Greenhaus et al., 2019), for the most part, it still views the individual as ultimately having control over planning and choice over action (e.g., De Vos et al., 2020; Spurk et al., 2020). The role and impact of chance events has not been afforded sufficient attention (Schneidhofer et al., 2020). Our study offers a typology of four different scenarios based on two orthogonal dimensions (positive vs. negative event × positive vs. negative career impact) and empirically connects each scenario (quadrant) with career-related outcomes and dispositional characteristics.

With the acceleration of the pace of career dynamics within an increasingly turbulent and unpredictable work environment (Gunz et al., 2020a), it is important to identify what constitutes an impactful chance event, at what level such events take place, and how they can be managed constructively. In our study, we identified major and significant outcomes, extending current career theories such as the sustainable and career ecosystems (Baruch & Rousseau, 2019; De Vos & Van der Heijden, 2015; De Vos et al., 2019), and protean career theory (Hall, 2004). We theorize the role of chance events and find out how these turned out for those who experienced them.

We also extend career theory by providing empirical evidence for the career ecosystem theory (Baruch, 2015), which differentiates actors at different levels—individual, organizational, and societal. Our findings demonstrate how career trajectories are formed in response to external events as well as being shaped by individual internal orientations. Changing relationships, including boundary crossing following chance events, was reported as a typical career move, for example, a geographical move or illness or an encounter with specific individuals (either in professional or in personal life). In addition to the typical organizational and environment push and pull factors (Baruch, 2015), we incorporate the impact of factors such as luck and serendipity, which are considered chance events, showing that they are influential, but can be harnessed to the benefit of the career actors, even though those events are unplanned for and mostly unexpected. Some of these unexpected outcomes manifest the dark side of careers, where individuals suffer career setbacks, sometimes even if the event itself was considered positive (Vardi & Vardi, 2020). Conversely, we also identified a bright side, where perceived negative events led to an outcome that was considered as positive and connected with multiple positive objective and subjective outcomes, possibly due to acquiring career resilience (Waterman et al., 1994).

Practical implications

Three career actors can benefit from our study, first and foremost, individuals who work and pursue careers. Awareness of the unpredictability of contemporary life and factors that can influence the way individuals are influenced by chance events is a first step. Chance events take place, but they can be "managed" for self-benefit (Kindsiko & Baruch, 2019). Our study suggests that in most cases, occurrence of a chance event is associated with long-term career benefits rather than career losses. Hence, the unexpected or something that has not been incorporated in our planning should not be dreaded, it can be a source of opportunity and growth. Furthermore, our findings suggest that a negative chance event does not need to have a negative impact on the career. There are significant chances to overturn the situation and make it beneficial if we see it as challenging and operate with appropriate resilience and perseverance. In such cases, we know from our study that a negative event has in most cases greater overall benefit for the career than a positive event.

Secondly, employers and line managers should support employees and subordinates during transition phases triggered by unanticipated negative events, not only because this is a humanitarian act but also because by doing so they foster employee retention, commitment and employability. An implication of our study is that unanticipated situations that appear negative in the first place can yield positive outcomes, and when this is the case, the benefits for employability and other career success manifestations are greater than those of positive events in the first place. This means that employers and managers are bound to gain if they show support, instead of abandonment, of employees who are "hit" by a negative unexpected event. Finally, our findings suggest that dispositional characteristics, especially protean orientation, help people overcome situations caused by negative chance events and produce positive outcomes. Though dispositional characteristics are generally stable, there is some evidence that they can be shifted through systematic external intervention (Verbruggen & Sels, 2008; Wang & Wu, 2021). This means that it is worthwhile for organizations to use training and development budgets in such directions.

Finally, at government and societal level, there should be preparedness to face chance events. Though chance events are by definition "unpredictable," preparation for unanticipated contingencies is certainly feasible. One example is the context of COVID-19, where most individuals, companies, and national agencies were not prepared and really taken by surprise (Donald et al., 2021). Our study was focused at the individual level, however, and found that negative consequences of "bad luck" can be seriously limited or even turned into a positive outcome for the majority, provided the appropriate mentality and resources are available.

Limitations and future research agenda

The data were collected from graduates of an elite French business school, so the ability to generalize is limited. Influencing the intermediate outcomes of chance events may not be feasible. Yet, accepting the inevitable, or, conversely, challenging the case, may lead to outcomes that differ from what would otherwise be anticipated.

We utilized retrospective recall. This was necessitated by the aims of the study, which were to identify chance events that have had an impact on the careers of individuals. Careers by definition evolve over long periods of time, impactful events may appear at any point in the course of a career, and their impact can take a long time to show on career outcomes. Hence, looking at careers retrospectively was arguably the only realistic option. Furthermore, long-term retrospective recall for key events is sufficiently reliable (e.g., Brigham et al., 2008; Russell et al., 2015), including accurate recollection of long-past career-related facts (Howard, 2011). Nonetheless, the reliance on retrospective recall data in our study should be kept in mind. For example, the event that is recalled, positive or negative, and how its impact is assessed is also dependent on the emotional state of the individual (e.g., Drace, 2013; Eich & Macauley, 2000). The present situation of participants (e.g., favorable or unfavorable to them) could have influenced which event was recalled. Furthermore, the delineation of the categorization positive-versus-negative in the survey may have forced respondents towards such categorization of events. Studying the process that led to such reactions would offer fruitful future research directions.

We considered protean career orientation and growth mindset as individual characteristics that may influence career outcomes of chance events. The results partly vindicated the choice. However, there are other constructs that account for the way people approach challenges that may also be useful in research on the effects of chance events on careers. Such constructs include psychological capital (Luthans et al., 2015) and core self-evaluations (Judge et al., 2003), which future research should consider utilizing.

Lastly, sizes of the various categories varied, and the findings for the small Quadrant 4 (positive event/negative outcome) may not be representative. Future work, therefore, could target specific populations that were exposed to perceived negative chance events. The present situation with COVID-19 may represent such an opportunity.

CONCLUSIONS

Individuals can create their own destiny and career opportunities (Savickas et al., 2009). The ways individuals react to chance events remind characteristics of the protean career orientation, key element of the protean career model that has been tested in a variety of conditions, and geographies for describing work and life/career trajectories and outcomes (Gubler et al., 2014). There are many ways to develop and maintain sustainable careers (De Vos et al., 2020) and dealing with disruptive chance events is one of them. The dynamic labor market experienced by individuals and organizations requires a different type of thinking and acting when a chance event takes place. Our study paves the way for a better future understanding of the phenomenon and its outcomes. We point out how breaking down the population in terms of their perception of career experiences throws up sometimes counterintuitive findings. The use of quantitative and qualitative features of the survey enabled us to juxtapose the statistical comparisons with the emotional dimension manifested by how the individuals thought about those experiences.

CONFLICT OF INTEREST

The authors have no conflict of interest.

DATA AVAILABILITY STATEMENT

All data were collected by the co-author, and we will be happy to share it if other scholars wish to collaborate with us on further writing.

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