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SUSTAINABLE CAREERS ACROSS THE LIFESPAN:

MOVING THE FIELD FORWARD

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Sustainable Careers: An Interplay between Individuals and Employers

Sustainable careers are comprised of work experiences across one's lifespan that also intersect multiple life domains, notably: work, social, and family (Van der Heijden & De Vos, 2015). The creation of this contemporary notion was spurred by a combination of socio-economic factors, such as the increased complexity and globalization of business and labor markets, as well as more rapid rates of change within the world of work (Hall, Yip, & Doiron, 2018). These factors have put a premium on employee flexibility and accelerated the evolution of the conceptualization and experience of careers. Consistent with these trends, evidence   for increased scholarly interest in sustainable careers is found in academic handbooks (De Vos & Van der Heijden, 2015; De Vos, Dujardin, Gielens, & Meyers, 2016) and major international conferences (e.g., Academy of Management, European Association of Work and Organizational Psychology, European Group of Organization Studies). This special issue is intended to take account of and advance this work by further developing the conceptual and empirical foundations of sustainable careers.

What sets the sustainable career perspective apart from other career paradigms is its explicit and strong focus on both *individual* and *contextual* elements related to career management. Careers have and continue to be largely an individual-level phenomenon, which is reflected in research that predominantly focuses on what individuals can do to create successful and sustainable careers (cf. Spurk, Hirschi, & Dries, 2019). Despite this, however, employers play an important role in the sustainability of individuals' careers across the lifespan, as they provide diverse work experiences, opportunities for development, and support for work-life balance (cf. Baruch, 2006). This scenario emphasizes the critical role of Human Resource Management and employer-supported career management in fostering employees' productivity, health, and happiness in their careers (Van der Heijden, 2005) over time (i.e., sustainable careers, De Vos, Van der Heijden, & Akkermans, this special issue). Accordingly,

fundamental to the sustainable career concept is *shared responsibility* between employers and employees (see e.g., Van der Heijden, 2005; Veld, Semeijn, & Van Vuuren, 2015). This special issue therefore aims to refine and advance the notion of sustainable careers using studies that illuminate both individual and organizational levels. In so doing, we show that the sustainable career construct complements rather than replaces existing career paradigms, such as protean (Hall, 2002), boundaryless (Arthur & Rousseau, 1996), and customized careers (Valcour, Bailyn, & Quijada, 2007), which, although acknowledging that careers are developing within working organizations, do not focus on its active role in this regard. Furthermore, and although the interplay between individual and organizational career management is paramount for developing career sustainability, a number of important questions remain unanswered. First, are sustainable careers beneficial for both employees and employers? Second, how do antecedents and outcomes of career sustainability change over one's lifespan? Third, how do planned activities versus unexpected events impact career sustainability? Answering these questions will advance research, practice, and policy related to career management.

The remainder of this article is organized as follows. We first summarize and critically reflect on the contributions of the individual papers included in this special issue. This is then used to synthesize existing knowledge and present a coherent and more refined conceptualization of sustainable careers, which can then be used to guide future research and advance our knowledge and practice.

Overview of Papers in the Special Issue

De Vos, Van der Heijden, and Akkermans. De Vos and colleagues present a conceptual process model of sustainable careers. They build on the definition by Van der Heijden and De Vos (2015) wherein sustainable careers refer to "sequences of career experiences reflected through a variety of patterns of continuity over time, thereby crossing several social spaces, characterized by individual agency, herewith providing meaning to the

individual" (p. 7). From their conceptual model, it becomes clear that career sustainability is neither a linear nor a static phenomenon, and the key mechanism to achieving a sustainable career is person-career fit, or the extent to which an individual's career experiences are compatible with their needs, values, interests, and talents (cf. Parasuraman, Greenhaus, & Linnehan, 2000). By extension, this would result in high levels of health, happiness, and productivity (Van der Heijden, 2005). The authors contend that the individual career actor, along with the assistance of other parties, should actively engage in finding new challenges related to chance and unplanned events in order to discover unexpected career opportunities. They further stress that different levels of influential factors – institutional, national, occupational, organizational, workgroup – have to be taken into account in addition to the individual level. As such, career sustainability starts with the individual career actor and develops within a context over time. Even in a period of (relative) stability, the constellation of factors can vary. For example, by comparing two time points in their career people can perceive their career as sustainable even while factors vary. An individual may report a high level of happiness at Time 1 but a low level of health. The same individual may report the opposite at Time 2, but at both Time 1 and Time 2 he/she is productive. De Vos and her colleagues advocate a systemic and dynamic approach that considers the interplay between the dimensions of person, their context, and changes over time.

Kossek and Ollier-Malattere. Kossek and Ollier-Malaterre investigate how reduced-load (RL) work, a flexible form of part-time work wherein a full-time job is redesigned to reduce the hours and the workload while taking a pay cut, is a means for protecting one's career sustainability. The outcomes of their qualitative study of managers, HR experts, and executives who were early adopters of RL work stress the importance of a collaborative approach to the crafting of work load reduction or work load reshuffling. Responsibilities should be shared among and involve employees, managers, and employers in order to strengthen work design

tactics (differentiation or integration) and to manage cultural expectations regarding RL implementation. For example, the authors argue that the effective implementation of RL work requires clear expectations between all involved parties. The sustainable career perspective is manifest in their explicit consideration of both *individual* and contextual elements of career management, and this highlights that both employees and employers play important roles in the sustainability of careers across the lifespan (e.g., supporting work-life balance).

Kossek and Ollier-Malaterre further emphasize the need for more work examining the effects of gender and country on RL and sustainable careers. This is important given the common national differences in public provisions and regulations pertaining to the work-family interface. We argue that alignment between individual capabilities and preferences and organizational support across the lifespan is crucial in order to protect the Person-Environment (P-E) fit - and person-career fit - over time (Parasuraman et al., 2000). To illustrate, if a person proactively tries to craft a reduced workload but key stakeholders in the organization do not support this, their career sustainability can be harmed, with potentially negative consequences for their organizational commitment and performance as a result of psychological contract breach (Sturges & Guest, 2004).

Chudzikowski, Gustafsson, and Tams. The third paper in this special issue uses P-E fit (Kristof, 1996) to inform sustainable careers. Chudzikowski and colleagues use interviews with consultants from a large management consulting firm to advance our understanding of how individuals may enhance career sustainability by construing alignment of their career interests and aspirations with the interests of the employing organization. Their study advances sustainable careers research by identifying four narrative approaches for people striving for alignment within the challenging organizational career context: overidentifying, conforming, creating symbiosis, and moving on. They also critically analyze the characteristics of these narratives in terms of five sustainable career dimensions: time, social space, agency, meaning,

and tensions. The integration between individual and context are made explicit in this study, as alignment narratives are contextually situated expressions of career agency (i.e., protecting and further enhancing one's career sustainability).

Chudzikowski and colleagues contribute to sustainable careers research by showing that career sustainability does not mean everything should be optimal at all times, and that sustainable career paths are idiosyncratic. Even temporary unsustainability, for instance in terms of reduced productivity in one's career, could ultimately lead to improved sustainability over time, in terms of renewed productivity while having protected one's health and happiness. However, protecting career sustainability over time is only possible in case stakeholders in working organizations acknowledge that a highly pluriform workforce requires a customized approach to careers in which alignment between individual and organizational needs is realized through respecting the idiosyncratic and dynamic nature of careers (Brzykcy, Boehm, & Baldridge, 2019; Van der Heijden & De Vos, 2015).

Straub, Vinkenburg, and Van Kleef. Like Kossek and Ollier-Malaterre and to Chudzikowski and colleagues, Straub and associates also address sustainable careers as a shared responsibility between individuals and employers. They discuss the possible mismatch between traditional career models and the needs of employees in today's labor market. Their multiple wave quantitative study in a Professional Service Firm (PSF) explores the impact of an innovative career practice - Mass Career Customization (MCC; Bal, Van Kleef, & Jansen, 2015) - on objective and subjective career consequences over time. They also consider the role of participants' gender and parental status. They study customization aimed at tailoring career development, which can be upward or downward, using four dimensions: pace, workload, location/schedule, and responsibility. The outcomes of their study inform the debate related to the strengths and weaknesses of current MCC practices, as they found both positive and negative outcomes. No loss of career satisfaction for father customizing down, and increased

performance evaluations for mothers customizing down, are illustrative of desirable outcomes. Reduced career ambition for men and women reflects undesirable MCC outcomes. The authors argue that the latter might be explained by flexibility stigma, especially for fathers who deviate from the ideal worker norm inherent in PSFs.

An important conclusion we can draw from this study is that MCC might be beneficial for workers in the short term, and it may be an indicator of career sustainability, but it does not guarantee sustainability in the long term. For instance, a decrease in ambition might result in decreased career satisfaction or lowered productivity over time. More empirical work is needed regarding the underlying norms and values related to career-related interventions and their timing (both in terms of sequences and consequences), such as investment in employability-enhancing activities, work-life measures, or measures to reduce the physical or mental demands of a job across the career (Van der Heijden & De Vos, 2005). Similar to other studies in this issue, Straub and colleagues stress the important role of the organization and the need to carefully align policies and practices with employees' expectations, preferences, norms, and values. Put differently, the interaction between the individual employee and the organizational stakeholders (i.e., management at different levels) is key for protecting and further enhancing individuals' career sustainability over time. They also show the specific challenges both genders have to deal with, depending upon their parental status.

Richardson and McKenna. These authors provide a somewhat contrarian or dark side of sustainable careers in their study of former professional athletes, being a unique occupational category and, as the authors argue, a prototypical example of the risks of developing unsustainable careers. Using the Job Demands-Resources (JD-R) framework (Bakker & Demerouti, 2017; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), they examine the individual, contextual, and temporal dimensions of career (un)sustainability during and after a career in professional sports. Findings from semi-structured interviews with former players,

professional development managers, and a sports psychologist support the position espoused by Bakker and Demerouti (2017), which is that job resources may act as motivators and/or buffers to job demands across occupational fields and over time.

The authors also extend the JD-R framework - and sustainable career thinking - by incorporating a specific type of social demands, that is, public recognition and criticism. Specifically, they highlight how professional athletes are subject to expectations (demands) about on- and off-field behavior not commonly experienced by workers in other fields. Besides one's family, these same athletes also have access to and utilize social resources that differ from other occupational fields, such as professional development managers, coaches, sport medics, and nutritionists. Richardson and McKenna conclude that as a result of the idiosyncratic job demands and resources in professional sports, short-term career sustainability may be limited. However, it could create a platform for long-term career sustainability in other career domains, post-sports. Similar to Akkermans, Schaufeli, Brenninkmeijer, and Blonk (2013), these authors show that the JD-R model is a useful way of studying sustainable careers and understanding the nuances across diverse occupations and industries.

Hirschi, Steiner, Burmeister, and Johnston. In line with the approach of social demands and resources from Richardson and McKenna, Hirschi et al. argue that career sustainability can only be realized when the different domains in one's life are well-aligned, most notably one's work and private life domains. They adopt a whole-life perspective on sustainable careers and investigate the nomological net of non-work orientations (NWO) in two quantitative studies with five samples. Their first study shows that people become and remain engaged in work and nonwork roles that fit their personality and work values. The second study investigates how different combinations of NWO and work role commitment relate to work-nonwork conflict and enrichment, and identify five distinct latent profiles: (a) average levels, (b) work focused, (c) personal life focused, (d) family and personal life focused, and (e) whole-

life focused (i.e., high in NWO and work role commitment). The outcomes of their analyses indicate that NWO do not automatically imply less work commitment. Instead, people with a whole-life focus reported more work-nonwork enrichment and a tendency for less work-nonwork conflict compared to individuals who are mainly focused on either their work or private life. Hirschi and colleagues also found age group differences and call for future researchers to further explore the lifespan dynamics of career sustainability.

The findings of this study lend additional support for the proposition by Van der Heijden and De Vos (2015). They contend it is important to consider personal meaning to better understand career sustainability, as employees ascribe very different meanings to their career-related and private life experiences, sequences, and outcomes across the life-span. Another important insight that can be drawn from this study is that individuals who focus on both their work and family domains experience the lowest levels of work-family conflict. In terms of career sustainability, this implies that NWO is a key element in becoming and remaining happy, healthy, and productive throughout one's career (cf. De Vos et al.'s contribution in this special issue). Moreover, the age group differences revealed in this study help support the argument that a broader or so-called multi-dimensional operationalization of age should be used in sustainable careers research. Such considerations will illuminate the importance of changes in psychological, physical, social as well as societal functioning across time that are a result of aging (De Lange, Taris, Jansen, Smulders, Houtman, & Kompier, 2006; Kooij, De Lange, Jansen, & Dikkers, 2008; Sterns & Miklos, 1995). Sterns and Doverspike (1998), for instance, proposed five different approaches to measuring age - chronological, organizational, functional, psychosocial, and life-span development - which account for age-related changes in health, career stage, and family status, among others. We echo this view and encourage future researchers to utilize broader conceptualizations of age to advance our understanding of sustainable careers.

Kelly, Straus, Arnold, and Stride. Kelly and colleagues also apply a whole-life perspective to career sustainability. Drawing on Conservation of Resources (COR) theory (Hobfoll, 1989, 2001), the authors investigate whether investing extra time in leisure activities is a means for enhancing rather than hindering one's career sustainability by either generating or depleting personal resources. To this end, their quantitative multi-wave survey study examines within-person changes in career-related resources (self-efficacy and resilience) over the course of seven monthly measurements. They find that time spent on leisure over and above an individual's average is positively related to work-related self-efficacy, but only when the individual's leisure activities are high in seriousness (the extent to which individuals identify with and persevere in their activity) and low in work-leisure similarity (the extent to which work and leisure involve similar demands and skills), or when they are low in seriousness and high in similarity. The authors also find that investing time in leisure is negatively associated with self-efficacy when leisure activities are high in seriousness and similar to an individual's work.

Similar to the work by Hirschi and associates, the results of Kelly et al. underline the importance of including the role of nonwork domains in research on sustainable careers, and to extend earlier empirical work on work-home interactions beyond the traditionally examined family life. One key implication for career sustainability is their finding that engaging in serious leisure activities can be beneficial for one's career resources, but only if this activity is dissimilar from one's regular work activities, whereas non-serious leisure activities can be beneficial if they are similar to one's work. Building on their findings, it would be valuable to better understand the different effects of specific types of leisure activities on career-related outcomes, as well as the level of engagement in these activities for different categories of workers in future scholarly work. For instance, presumably the type of occupation interacts with the type of leisure and might explain variance in health, happiness, and productivity related

to one's career sustainability over time. To illustrate, whereas knowledge workers might gain considerable benefit from spending more time in outdoor activities, the opposite might be the case for construction workers who might benefit more from reading a novel.

Barthauer, Kaucher, Spurk, and Kauffeld. The eighth paper in this special issue also uses COR theory (Hobfoll, 1989, 2001), and aims to better understand the mechanisms explaining the relationship between burnout - considered to be an indicator of an unsustainable career - and career turnover intentions (a factor related to occupational transitions). Barthauer and colleagues conducted a time-lagged survey study at three points in time with academic scientists. They tested a moderated mediation model, wherein both personal resources (perceived internal marketability and career satisfaction) and a contextual resource (perceived departmental support) were taken into account. The authors found that burnout is related to higher career turnover intentions, and that perceived internal marketability and career satisfaction mediate this relationship. Results did not support the hypothesized moderation effect of perceived departmental support on the direct relationship between burnout and career turnover intentions. However, perceived departmental support moderates the relationship between burnout, on the one hand, and perceived internal marketability and career satisfaction on the other. In all, the authors conclude that burnout can indeed be a threat to career sustainability by motivating career turnover, and this could be potentially costly to employers if it results in the loss of valuable human capital and productivity. Departmental support, however, can mitigate this effect. As such, their study once again underlines the interplay between individuals and organizational stakeholders in determining career sustainability.

Analogous to the contribution by Richardson and McKenna, the authors suggest that incorporating social resources - in this case departmental support - may be a promising avenue for future scholarly work in the domain of sustainable careers. They further stress the importance of reflection processes, such as that which occurs during career

coaching/counseling, networking training, and supportive interactions with colleagues, in order to enable the exchange of relevant information or socio-emotional support. In term of sustainable careers, we note that career turnover is not necessarily be a bad thing, despite a long history of research that views turnover as undesirable for individuals and organizations. Some career researchers, in contrast, emphasize that transitions within and/or between occupations can promote career progression and success. We therefore argue that even though burnout is a negative phenomenon, it might ultimately push individuals out of an unhealthy and/or unproductive work environment and result in long-term satisfaction and career sustainability. This again relates to the ideas of Richardson and McKenna in this special issue, wherein short-term sustainability in professional sports is perhaps impossible, yet it may foster long-term opportunities for a sustainable career in other occupations. These propositions need to be validated by future researchers.

Heslin, Keating, and Ashford. Heslin and colleagues provide a conceptual discussion of the implications of mindsets for sustainable careers. They explain what people might need to learn to enhance their career sustainability, and in doing so, they make a differentiation between a wide range of typical career- and home-realm challenges that individuals can encounter throughout the lifespan. The authors advocate that employees should adopt a 'learning mode', which is a self-regulatory meta-competency that shapes self-directed learning and can help people protect and/or further enhance their career sustainability. They describe how a growth mindset, instead of a fixed mindset, enables people to engage in an experiential learning process that involves adopting a relevant approach (creating a specific learning focus), action (capitalizing on learning opportunities), and reflection (i.e., capturing the lessons of experience). They further articulate how mindsets are to some extent malleable, which underpins a dual-process model that highlights how people may be nudged in and out of learning mode, both momentarily and over longer periods of time.

Similar to the work of Barthauer and colleagues, Heslin et al. show us that there are many opportunities to support employees' career sustainability, and organizations should be prepared to enable their staff members to be in a learning mode by providing growth-mindset interventions for managers and employees. They further suggest that in addition to vocational counseling and peer coaching trajectories, both individuals and their direct managers would benefit from proactively managing exposure to growth mindset cues and further cultivating a growth mindset in order to create long-term career sustainability. The conceptual ideas of Heslin et al. also tie in nicely with the conceptual model from De Vos et al. in this special issue, as the individual would need to adopt a growth mindset, which can be enhanced by cues from their context and be developed over time. In this sense, active learning and adopting a growth mindset can be considered key elements for developing a sustainable career.

Bozionelos, Lin, and Lee. The study by Bozionelos and his colleagues, the tenth paper in this special issue, explores the role of learning in the light of career sustainability, and it also stresses the importance of both the career actor and their supervisor/employer when aiming to enhance workers' employability and performance. Their quasi-experimental intervention study of a 2-day service quality training shows that job performance and employability, as assessed by line managers, increase significantly following the training with respect to their pre-training levels. Moreover, learning as a result of the training mediates the relationships between openness to experience and supervisor support, as well as job performance and employability. The researchers also find an unexpected substitution effect, instead of the hypothesized positive synergy. In particular, contrary to a positive synergy, a substitution effect was found between openness and supervisor support in fostering learning as result of training, and subsequently, increases in job performance and employability.

In line with the process model of sustainable careers presented by De Vos et al. and supported by empirical findings from Kossek and Ollier-Malaterre, and Straub and associates,

the study of Bozionelos et al. makes clear that multiple stakeholders have roles in fostering employees' career sustainability. It seems that a tailored approach to interventions is most beneficial, wherein an employee's openness to experience is a critical factor to consider. This study also has a unique contribution to the special issue - and sustainable careers in a more general sense - by showing that it is possible to successfully enhance indicators of career sustainability through systematic training and development (cf. Akkermans, Brenninkmeijer, Schaufeli, & Blonk, 2015; Hodzic, Ripoll, Lira, & Zenasni, 2015; Spurk, Kauffeld, Barthauer, & Heinemann, 2015).

De Grip, Fouarge, Montizaan, and Schreurs. The final paper in this issue also examines the importance of training as a predictor of a sustainable career. Applying social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005), the authors examine the incremental effect of training opportunities over and above actual training participation. Using matched employer-employee dyads, results indicate that training opportunities are indeed associated with expected retirement age over and above employees' actual training participation, yet only for employees with strong positive reciprocity beliefs. Moreover, additional analyses demonstrated that this strengthening effect of positive reciprocity only holds for organizations that are financially healthy. The work of De Grip et al. again illustrates that the interplay between individual (i.e., expected retirement age, reciprocity beliefs) and contextual (offered training opportunities) factors is critical in establishing a sustainable career.

The study of de Grip et al. also shows that key elements of career sustainability may differ across different employment settings, as their findings only held in financially healthy organizations. This reveals some fascinating areas for further exploration. For example, future sustainable careers research needs to increase our understanding of how and why particular organizational practices influence employees' career sustainability across industries, labor market types, and national cultures. To this end, it would be valuable also to consider bundles

of Human Resource Management and/or Human Resource Development practices (McDonald & Hite, 2018), various types of career management practices (cf. Kooij, Jansen, Dikkers, & De Lange, 2014; Veth, Emans, Van der Heijden, Korzilius, & De Lange, 2015), and talent management practices (Al Ariss, Cascio, & Paauwe, 2014; Nijs, Gallardo-Gallardo, Dries, & Sels, 2014).

Sustainable Careers: Looking Back and Looking Forward

The seeds for future sustainable careers research have been planted. Looking back, the component studies further inform the notion of sustainable careers - what they are, what they are not, appropriate underlying theoretical frameworks, and approaches measuring and testing career sustainability. Looking forward, we conclude this article with some key takeaways intended to inspire scholars around the world to continue developing and realizing the value of sustainable careers.

An individual experience, but within an organizational context. Sustainable careers, like previous notions, remain individual-level phenomena (e.g., *person dimension*, De Vos et al. in this special issue). The individual is the 'owner' and bears primary responsibility for protecting and enhancing their career sustainability through proactive behaviors (Anseel, 2017), that are meant to align their needs with the of the organization (see Chudzikowski et al. in this special issue). However, the research included in this special issues emphasizes the important role of the employer who can cultivate sustainable careers based on employee needs. Kossek and Ollier-Malaterre and Straub et al. (in this special issue) explain that employer roles may be the result of (un)planned behaviors or events across domains of life (cf. Akkermans, Seibert, & Mol, 2018; Hirschi, 2010; Mitchell, Levin, & Krumboltz, 1999). To play their role effectively and strategically, employers of course need to ensure sustainable career development activities align with their strategies and objectives (Boxall & Purcell, 2011).

By advocating the important role of employers in the sustainable careers of employees, we bring the context to the fore which has historically been only implied or at least underrepresented in past research (cf. Colakoglu, Lepak, & Hong, 2006). This multiple-stakeholder and interactive conceptualization help overcome the overly agentic perspective found in careers research in recent years (Akkermans & Kubasch, 2017; Gunz, Mayrhofer, & Tolbert, 2011). In particular, as careers impact and are impacted by multiple life domains (in work and private life spheres), sustainable careers must adopt a whole-life approach (see Hirschi et al. and Kelly et al. in this special issue). This is consistent with other recent careers research that highlights the important and even essential inclusion of non-work domains (see also De Hauw & Greenhaus, 2015; Greenhaus & Kossek, 2014).

Given the important role of the context in which careers evolve, we further encourage future researchers to expand their investigations beyond traditional employer-employee relationships. For instance, a better understanding of career sustainability among entrepreneurs, temporary workers, and gig workers would greatly extend the academic and practical utility of the construct and related research. Existing research provides some guidance, such as that focusing on how transitions between corporate careers and entrepreneurial careers might impact career sustainability (e.g., Krueger, Reilly, & Carsrud, 2000; Sullivan, Forret, Mainiero, & Terjesen, 2007), and how the uniquely flexible and dynamic careers of project managers may evolve over time (Akkermans, Keegan, Huemann, & Ringhofer, in press). It is likely that the dynamic process of sustainable careers differs across these types of workers, and we hope that future studies will provide a deeper understanding of these dynamics.

Time, age, and sustainable careers. The term sustainable by definition requires consideration of time. Accordingly, sustainable careers scholars need to utilize study designs that illuminate dynamics and changes over time (see Bozionelos et al. in this special issue). This contrasts with the vast majority of existing (sustainable) careers research that is cross-

sectional or does not explicitly investigate the inherent dynamism. Experimental and qualitative studies also have the potential to advance our understanding of sustainable careers, such as those in this special issue (see Chudzikowski et al., Kossek & Ollier-Malaterre; Richardson & McKenna). These authors provide insights into the process through which sustainable careers unfold over time, while others (Barthauer et al.; Kelly et al.; and Straub et al.) include multiple waves and examine relationships between antecedents and outcomes of a sustainable career over time.

Although these examples are promising, we argue that in order to accurately incorporate the complex character of indicators of sustainable careers (happiness, health, and productivity; Van der Heijden, 2005; cf. De Vos et al., this special issue), it is necessary to examine relevant factors at various intervals - short and long - as careers include both macro- and micro-changes in sustainable career predictors over time. We therefore encourage a developmental approach to sustainable careers and consideration of the diversity of intra-individual change trajectories across time (cf. De Jonge & Dormann, 2006; Martin & Hofer, 2004) (e.g., in this issue, Richardson & McKenna; Heslin et al.) is needed as well to really move the field forward (cf. De Grip et al. and Straub et al. in this special issue). For instance, age-related and life-stage changes in process variables (e.g., future time perspective, motivation, and identity), their antecedents and outcomes, would increase our understanding of intra-individual changes in career sustainability across time (e.g., Barthauer et al. in this special issue). Similar benefits would be gained by examining intra-individual changes in perceived employee-employer (e.g., psychological contract) relationships over time in relation to sustainable careers and their outcomes.

When considering the role of time in career sustainability, it also is important to consider how short-term and long-term dynamics might interact and form the overall sustainability of a person's career. The studies in this special issue offer some preliminary insights in this area,

for example, the work of Richardson and McKenna in which short-term unsustainability might give rise to long-term sustainability. Additionally, if we speculate based on the study of Barthauer and colleagues, we could argue that even though a burnout might result in short-term negative outcomes, it might ultimately result in higher levels of sustainability if a career transition fits with the person's circumstances and wishes (cf. Semeijn, Van Ruijsseveldt, Vonk, & Van Vuuren, in press). Conversely, heavy work investment in terms of work engagement might be highly sustainable in the short-term but could turn into harmful investments in the long run when it, for example, turns into workaholism (cf. Van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012). Taken together, these findings point to the complex interplay of factors that can jointly affect career sustainability over time. Think for example about someone who might be very happy and healthy but unproductive in the long term, or another person who is high in productivity and low in health at one point in their career but the opposite after a career transition. These complexities in career sustainability open up many fascinating questions for future research, such as: Do all indicators always need to be high in order for people to experience career sustainability? How can different indicators of career sustainability strengthen or compensate for each other? Can long-term career sustainability be achieved even when people experience many short-term periods of unsustainability? We would encourage scholars to further explore these types of questions, for example, by applying latent profile (Woo, Jebb, Tay, & Parrigon, 2018) or transition (Collins & Lanza, 2010) analysis with core indicators of the sustainable career framework.

Career sustainability and career shocks. Multiple studies in this special issue underline the importance of major events or shocks that may occur during one's career (e.g., Richardson and McKenna, and Heslin and colleagues, in this special issue). It is reasonable to assume that a career shock - "a disruptive and extraordinary event that is, at least to some degree, caused by factors outside the individual's control and that triggers a deliberate thought

process concerning one's career" (Akkermans et al., 2018, p. 4) - can have both positive and negative effects on the sustainability of one's career. This presumption is supported by research that shows shocks are a nearly universal element of people's working lives and affect long-term career success and sustainability (Blokker, Akkermans, Tims, Jansen, & Khapova, 2019; Hirschi, 2010; Seibert, Kraimer, Holtom, & Pierotti, 2013; see also the conceptual work from De Vos et al. in this special issue, p. 9). For instance, an unexpected promotion or opportunity for an international assignment might suddenly enhance career sustainability, whereas it could be seriously undermined by an unexpected loss of a loved one or one's job. At the same time, it is possible that even a major negative shock (e.g., being fired) can lead to positive outcomes over time [e.g., finding one's calling in entrepreneurship; see Duffy, Dik, Douglass, England, and Velez (2018)]. More empirical work in this field is needed to examine the interplay between planned behaviors versus chance events (e.g., shocks) in people's career sustainability.

Conceptualizations vs. operationalizations of sustainable careers. Although the articles in this special issue are relatively consistent in their conceptualization of a sustainable career, these same studies utilize a variety of operationalizations and designs. First, some papers focus on what influences a sustainable career, thereby including career satisfaction, career ambition, and performance evaluations (Straub et al.), performance and employability (Bozionelos et al.), retirement intentions (De Grip et al.), or career turnover intentions (Barthauer et al.) as indicators of a sustainable career. Others study sustainable careers from a person-centered perspective by exploring employee profiles in terms of how they construe alignment between career needs and work demands (Chudzikowski et al.), or in their experience of work-nonwork conflict or enrichment (Hirschi et al.). Yet another approach investigates career resources, such as self-efficacy and resilience (Kelly et al.), conceived as factors influencing the sustainability of a career. To advance sustainable careers research, a psychometrically sound measurement instrument is needed. This will allow for the

accumulation, comparison, and extension of knowledge, while at the same time increasing confidence in research findings and recommendations for theory, research, and practice. Combining the existing body of sustainable careers research with that included in this special issue, it is clear the construct is multi-dimensional and must consider the dynamism between of the dimensions of person, context, and time.

Future work, both qualitative and quantitative, might also concentrate on identifying problems and challenges that are most common for employers and employees at different points in their career, thereby including the ages at which these are more frequent. We argue that, in doing so, it is wise to adopt a multi-dimensional conceptualization of age (cf. De Lange et al., 2006; Kooij et al., 2008). As individuals with the same chronological (or objective) age may differ in terms of age-related changes, a more elaborate conceptualization of aging, including subjective measures, is needed to better understand the impact of aging on the sustainability of careers in future work.

An optimal, yet obviously very costly, future research design would include large samples from specific categories of workers with several measurement moments, using multi-source ratings (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) throughout the career, so that developmental patterns could be detected (Laberge & Ledoux, 2011), and to guarantee that specific time sequences of cause and effects are better understood (Frese & Zapf, 1988). Future studies could also focus on interventions aimed at fostering sustainable careers for different categories of workers across different labor market situations, and across the life-span.

This special issue contains a mixture of both qualitative and quantitative empirical studies and we believe that keeping this balance between both approaches will be important in future research. Given the complexity of understanding what comprises a sustainable career, what influences it, and how it evolves over time, qualitative approaches are needed, as we see, for instance, in several studies in this special issue. The insights obtained from the interviews

in these studies are especially helpful to better understand the perceptions that people hold about the sustainability of their careers, what influences those, how these evolve over time, and how these might be affected by the quality of the employee-employer relationship. Complementary to these qualitative insights, quantitative studies focusing on organizational career systems and training programs in this special issue demonstrate how organizational practices can affect the sustainability of a career and, in doing so, add further foundation to the empirical validation of the sustainable career paradigm.

Conclusion

We have learned that sustainable careers involve the proactive and reactive actions of both employees and their employers. Sustainable careers thus require more than individual agency, such as building sustainable career resources through leisure activities or asking for I-deals to accommodate work-life needs. They also include responding to circumstances one encounters reactively and/or even passively, as when an individual decides whether or not to leave a job due to burnout or crafting their job to create alignment between personal and organizational needs. For their part, organizations can and do differ in the degree of proactivity with which they deal with the sustainability of their workers' careers. The use of mass career customization is an example of proactively addressing dynamic individual career needs. Yet, also within organizations, some managers might be more proactively concerned with career sustainability while others only accommodate their employees' needs in a more reactive way. As such the idea of 'being in learning mode', which is important for an individual person to facilitate the sustainability of their career, can be complemented by an organization's culture, which through HR-policies and leadership, may equally express a mindset that is in a learning mode. Ultimately, career sustainability is a complex phenomenon that requires us to take a dynamic

and systemic perspective that simultaneously considers the person, their context, and

developments over time.

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