

Sustainable development: A fourth paradigm for twenty-first century careers

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Abstract

This contribution proposes a fourth paradigm for twenty-first century careers adopting a sustainable development framework. First the evolution of the career development field through three paradigms (individual differences, individual development, life design) of career science and practice is offered. Then sustainable development as a fourth paradigm is introduced considering two pillars, Sustainability Science including contributions from the psychology of sustainability and sustainable development, and Human Security Psychology. Enhancing the well-being of individuals and environments, the fourth paradigm asks for redefining sustainable careers, career intervention, and skills for career counselors. Decent work, decent lives and healthy lives issues are included.

Keywords

Sustainable development, fourth paradigm, twenty-first century careers, decent work, decent lives and healthy lives

Sustainable development has gained a foothold across many areas of basic and applied science as a new paradigm for preserving the planet and promoting human health and well-being for the long-term future (Bansal, 2019). First coined as a term at the 1972 United Nations Human Environment Conference in Stockholm (Ogryzek, 2023), sustainable development received increased impetus in 2015 with publication of the United Nations' 2030 Agenda for Sustainable Development that included 17 sustainable development goals (<https://sdgs.un.org/2030agenda>). Sustainable development as a paradigm offers a way of thinking and acting that prizes economic, social, and environmental interests equally and promotes their present and future benefit for the well-being, peace, and prosperity of the earth and all its nations, societies, and people (Ogryzek, 2023; Salim, 2007). Recognizing natural and social systems remain inextricably linked, sustainable development involves designing and implementing programs, processes, and practices that balance economic development, environmental protection, and social well-being to meet the needs of both present and future generations (da Silva, 2019). Typically described as an outcome of sustainable development, sustainability denotes a social goal of long-term human co-existence.

A wealth of literature has accumulated to indicate that the career development field retains a significant and substantial role in fostering sustainable development and achieving specific United Nations sustainable development goals by promoting sustainable careers (e.g., Di Fabio, 2017b, 2024; Di Fabio & Cooper, 2023; Guichard, 2022a; Lent et al., 2024; Maree, 2024; Nota et al., 2020). To advance and further structure this role, we support and promote adopting sustainable development as a fourth paradigm for career science and practice to augment the field's three core paradigms of individual differences, individual development, and life design (Savickas, 2013). We propose that advancing sustainable development as a paradigm in this way (a) reflects contemporary emphases and perspectives on sustainable careers (Van der Heijden et al., 2020), (b) promotes contemporary initiatives in career theory and practice centered on work equity, fairness, decency, and social justice (e.g., Blustein & Flores, 2023; Duffy et al., 2016), and (c) aligns the career development field squarely with current streams of conceptual and empirical work in vocational, organizational, and management psychology that aim to advance sustainable careers, work, and workplaces (e.g., see Blustein & Flores,

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2023; Di Fabio, 2017b; Di Fabio & Cooper, 2023; Di Fabio & Peiró, 2018, 2023; Lent et al., 2024; Nota et al., 2020; Van der Heijden et al., 2020).

Positioning sustainable development as a fourth paradigm for careers also recognizes and consolidates the field's traditional focus on career development and vocational behavior at the individual level. It does so by broadening career development's scope to larger social systems levels and providing a template for career science and intervention that can further promote human health and well-being, equality, quality education, sustainable communities, and decent work for all people. Before further describing and considering adoption of sustainable development as a fourth paradigm for twenty-first century careers we first consider the field of career development and its growth, establishment, and evolution through three paradigms of career science and practice.

The career of career development

For more than a century as a professional discipline, the field of career development has adapted itself to meet the challenges and fluctuating circumstances of an ever-changing world (Savickas & Savickas, 2020). Career development originated in the United States with the early twentieth century vocational guidance movement (Parsons, 1909), grew concurrently in western Europe, and has since expanded to countries on virtually every continent, such that today the field enjoys a clearly discernible worldwide reach (Athanasou & Perera, 2020). The career development field's strength derives from its global presence and impact, as well as its anticipating and responding to the needs of a dynamic, mutable, and evolving world that continually alter the nature of work and careers as well as individuals' responses to them.

Contemporary changes and conditions of work, workers, and workplaces have prompted the field's move to develop new models and methods for effective career service delivery that can strengthen the field's foundational approaches. More than 15 years ago life design (Savickas et al., 2009) emerged as a new paradigm for careers augmenting the person-environment fit (Holland, 1997) and developmental (Super, 1990) paradigms that originated and evolved during the twentieth century and predominated the field's first 100 years (Savickas, 2013). Meanwhile, career development today faces unprecedented yet surmountable challenges to adapt in an age of burgeoning growth in digital technology, artificial intelligence, and globalization. These challenges include unifying internationally around a common mission to foster work in people's lives, renovating theory and practice foundations to increase their relevance for workers in a global society, increasing emphasis on macrolevel factors embedded in the contexts of people's lived work and career experiences (Blustein et al., 2019), and shaping policy to improve access to career services and provide opportunities for decent and dignified work for all people.

Nearing the end of the first quarter of the twenty-first century, career development continues to build theory, conduct research, provide services, and shape policy that advance knowledge about and foster the role of work in human life across developmental age periods from childhood through late adulthood. Broadly tracing the career of career development indicates the field's future rests very much in building on its past accomplishments and present innovations while responding effectively to the challenges of the current digital and global age. Herein then we review the three core paradigms for career theory and intervention as backdrop for considering sustainable development as a fourth paradigm to comprehend and promote work and careers in human life. These core paradigms as cornerstones of career development theory and practice comprise individual differences, individual development, and life design models for career theory and intervention (Savickas, 2013).

Individual differences: matching people to occupations. The first paradigm for careers evolved principally from the vocational guidance movement in the United States when problems of immigration and youth leaving school predominated at the dawn of the twentieth-century. A model and practice methods steeped in individual differences, or person-environment (P-E) fit psychology emerged to comprehend and facilitate occupational decision making and choice as a function of matching individual to jobs (Münsterburg, 1910; Parsons, 1909). The individual differences paradigm and matching model for vocational guidance derive from a psychology of occupations in which satisfaction and success result from a congruent person-occupation match.

The psychology of occupations concerns objectively matching person traits to corresponding factors required of and associated with work environments. The individual differences paradigm assumes that persons can be objectively matched to stable occupations primarily using test and inventory scores and occupational information. A principal goal is congruence defined as a good fit between person and environment (Holland, 1997). The differential, or P-E fit tradition continues to form the foundation of theory and practice concerned with fitting people to jobs (Armstrong & Rounds, 2008; Fouad et al., 2023). Vocational guidance practices using the model and methods of self-knowledge, occupational knowledge, and true reasoning between these two types of knowledge reflect the person-environment fit paradigm (Holland, 1997; Parsons, 1909).

Individual development: managing lifespan careers. Near mid twentieth century nations and societies shifted from predominantly agrarian to industrial and organizational in nature (Savickas & Baker, 2005). Concurrently the still relatively fledgling field of vocational guidance looked to form models that could expand on the P-E fit paradigm to offer more complete accounts of and effective methods for promoting occupational planning, decision making, and choice (Ginzberg et al., 1951). Individuals

facing the growing complexities of work in organizational contexts prompted need for conceptualizing individuals' subjective experiences as they developed their lives through work in these very different circumstances. Thus, the developmental paradigm on careers emerged to comprehend and foster vocational behavior and its progression over the lifespan (Super, 1957, 1990). It served to augment the individual differences perspective in a psychology of careers by delineating life-careers as moving through a distinct sequence of stages with discernible patterns and trajectories, and worker as one among many roles individuals inhabit and enact along with roles in other life domains, such as family and community. The developmental paradigm emphasizes fitting work into life complementary to the P-E fit paradigm of matching people to jobs.

The psychology of careers focuses on individual movement through stages and active management of worker and other life roles to develop a life-career. While the psychology of occupations fixes the focus on what traits best fit an individual for an occupation, the psychology of careers concerns how a person develops a career over the span and role space of their lives. Career choice readiness in the form of acquiring the planning attitudes and decision-making competencies needed for career success and satisfaction marks a principal construct and goal for career intervention of the developmental paradigm.

Life design: making meaningful life-careers. A twenty-first-century world of tremendous complexity and change makes links between work and mental health arguably stronger and more salient than ever (Paul & Moser, 2009). Across the globe people face career planning, job search, job entry, job loss, work inopportunities, and work adjustment issues amidst continuing economic instability, "dejobbing," war, and various forms of turmoil and unrest stirred by multiple and multifaceted political, social, environmental, and economic problems. Meantime, organizational and work structures experiencing constant flux offer people little security and therefore require individuals to be adaptable, self-reflective, self-regulating, and self-managing. To better account for and facilitate life-careers in such circumstances and augment the matching and managing career development models, the life design paradigm (Savickas et al., 2009) adds a focus on life themes, relationships, story, reflexivity, intentionality, and purpose in life to foster identity, career adaptability, and inner security.

The psychology of life design emphasizes human diversity, uniqueness, and purposiveness in work and career to make a life of personal meaning and social consequence. Previous work on personal constructs, biographical hermeneutics, and the narrative paradigm led to the statement of life design as a paradigm for twenty-first-century careers (Savickas, 2012; Savickas et al., 2009). The life-design paradigm emphasizes individuals acquiring competencies of narrative identity to know and tell with clarity who they are and career

adaptability to shape who they become. The core elements of life designing are reflexive consciousness and self-making.

Widening the career development paradigmatic lens. With its past as prologue, the future of career development in international scope rests in its ability to continually adapt its paradigms and practices for the twenty-first-century global age. Such adaptability requires building on established theory and practice foundations, capitalizing on opportunities to broaden its reach both locally within nations and societies and globally in an interconnected world, and shaping policy to improve access to services and opportunities for all people (Blustein et al., 2019). Sustainable development offers the career development field an additional paradigm for doing this work. Contemporary emphases on sustainable development and sustainability principally engendered and promulgated by the United Nations' 2030 Agenda for Sustainable Development offer the field opportunity to expand its three core paradigms and broaden its validity and viability for societies and individuals both now and for the long-term future.

Sustainable development as a fourth paradigm

Challenges of the twenty-first century prove numerous, demanding, and pressing. These challenges range from work precarity, pandemic and viral diseases, war, and threatening effects of global warming and climate change (e.g., increasing fire and floods, dangerous storms, melting glaciers) to growing economic and social inequalities, and human rights violations. These challenges (Carr et al., 2021; Kenny & Di Fabio, 2023) become no longer possible to postpone because they harmfully affect "many aspects of planetary and human health" (Nadeau et al., 2022, p. 1087). Responding to these urgencies calls for integrating current perspectives on guidance and career counseling in the twenty-first century, opening the road to a new phase and a new paradigm that synergistically builds on it's the field's core models. The pillars at the basis of the new phase in guidance and career counseling can be recognized in the contributions of two prominent new areas: Sustainability Science (Komiya & Takeuchi, 2006; Takeuchi et al., 2017), and Human Security Psychology (Carr et al., 2021; Hodgetts et al., 2023). Sustainability Science (Komiya & Takeuchi, 2006; Takeuchi et al., 2017) creates a transdisciplinary reflection space combining natural and applied sciences, humanities, and social sciences. Bringing together various disciplines Sustainability Science addresses sustainability and sustainable development issues thereby contributing directly to the United Nations Sustainable Development Goals (United Nations, 2018).

Human Security Psychology (Carr et al., 2021; Hodgetts et al., 2023) highlights the greatest relevance of the human security area for research and intervention in the current challenging phase. Human Security is an interdisciplinary concept, introduced by the United

Nations Development Program in 1994 that evolved until considering concerns from personal to global as well as to the interconnectedness of people with the physical, social, and cultural elements able to shape their Human Security (Hodgetts et al., 2023). Human Security Psychology (Carr et al., 2021; Hodgetts et al., 2023) introduced recent calls for the development of broader and more contextualized approaches to promote contextual awareness as well as a psychological “sense of security” asking for insights from across the discipline to help human beings feel secure. Sustainable development as fourth paradigm for guidance and career counseling articulates itself within the framework of this new phase. In the domain of the Sustainability Science, significant contributions have emerged using psychological lenses, from the Psychology of Sustainability and Sustainable Development area.

Sustainability and sustainable development. The Psychology of Sustainability and Sustainable Development (Di Fabio, 2017a; Di Fabio & Cooper, 2023; Di Fabio & Peiró, 2018, 2023; Di Fabio & Rosen, 2018; Kenny et al., 2023, 2024; Maree & Di Fabio, 2018; Peiró et al., 2023; Rosen & Di Fabio, 2023) comprises a contemporary area of research and intervention stemming from transdisciplinary Sustainability Science (Komiyama & Takeuchi, 2006; Takeuchi et al., 2017). This area of applied psychological science aims to offer contributions through a psychological lens to identify problems and develop perspectives on intervention involving not only sustainability but also the sustainable development of global, social, and human systems. The Psychology of Sustainability and Sustainable Development also aims to provide research and intervention contributions to respond to the challenges of the UNESCO 17 Sustainable Development Goals of the 2030 Agenda (Di Fabio & Rosen, 2020).

The Psychology of Sustainability and Sustainable Development was officially structured in 2016 in the journal *Sustainability Science* (Springer Publisher) as a section, and in 2019 it appeared as a new section in the journal *Sustainability* (MDPI Publisher). Establishing the psychology of sustainability and sustainable development as a specific research area means recognizing and integrating the value of psychology and the psychological approach in the construction of processes and interventions linked to sustainability and sustainable development. Psychological processes have a critical role in decisions and behaviors connected to sustainability and sustainable development issues. Psychological processes “deserve to be studied in depth, considering processes within individual(s), within environment(s), between/among individuals, between/among environments, between/among individuals and environments, and between/among living beings and the natural world/universe, from the past, in the present, and into the future” (Rosen & Di Fabio, 2023, p. 20). Gaining harmony between internal and external complexity, generativity (Di Fabio & Tsuda, 2018), and eco-generativity (Di Fabio & Svicher, 2023, 2024a, 2024b) in the present as well as for future

generations is another structuring direction of the discipline.

Contributions of guidance and counseling. Guidance and career counseling can provide a basic worthy and preventive contribution to the establishment of a culture of sustainability and sustainable development. In this regards Maree (2024) offered an approach addressing the challenging Anthropocene era, as well as of the future. He proposed a “Career Counsellocene” era, emphasizing the value of reinvigorating career-counseling based on an integrative perspective anchoring to eco-awareness in the framework of the psychology of sustainability and sustainable development, highlighting the relevance of mitigating the negative effects of environmental abuse by human beings as well as enhancing the well-being of individuals and environments. At the same time, guidance and career counseling can offer interesting opportunities for enhancing and promoting a culture of human security. By creating our identities and adapting to changes in both ourselves and in different situations, we must create certainty and security inside ourselves in an uncertain and insecure environment (Hartung, 2023).

Sustainable development as a fourth paradigm for guidance and career counseling considers precious prodromal contributions by Jean Guichard (2022b). Guichard (2022b) explored the necessity of rethinking guidance, career counseling, and life design to address contemporary global challenges of the twenty-first century that involve the economy, ecology, and politics. He highlighted three main problems of the “anthropo-capitalocene” crisis: (a) problems of demography and social justice, (b) a major ecological challenge: depletion of natural resources, accumulation of waste, global warming, planetary pollution, rising oceans, etc., and (c) serious degradation of work and employment. This crisis is so serious that the Member States of the United Nations managed to agree to unanimously adopt in 2015 a resolution entitled “Transforming Our World: the 2030 Agenda for Sustainable Development.” The “anthropo-capitalocene” crisis asks for very deep reforms and agreements be reached among the most important international organizations (UN, UNESO, UNICEF and ILO) to delineate the principal guidelines to conduct these reforms. Therefore, it is now urgently necessary to put in place the mechanisms that will enable the shift to sustainable development, which will be founded on right systems of economic exchange and allow all people to lead decent active lives.

Guichard’s (2022b) concept of active life, contextualizing Hannah Arendt’s (1958) concept of “active life” that encompasses labor, work, and action, delineates specific lines of development and structure for guidance and career counseling, opening the way to the promotion of guidelines to anchor the new paradigm. In this regard, labor refers to activities necessary for survival, work involves creating durable products, and action pertains to collective efforts to address societal issues. Updating the considerations by Arendt (1958), Guichard (2022b)

asserted that the majority of existing interventions merely view active life as “work.” They do not consider that a lot of jobs are just “labor.” They only take into account “action” from the perspective of the person’s professional career. Guichard (2022b) thus affirmed that this perspective on existing interventions proves myopic, and interventions need to support the design of active lives including all three aspects of labor, work, and action.

Guichard (2022b) also underlined that supporting the construction of active lives could permit individuals to face challenges of the current world Anthropocene crisis–capitalocene crisis. In the Anthropocene era (O’Hare, 2020; Pavid, 2020) human beings are considered responsible for the main ecological issues considering that in relation to Capitalocene (Malm, 2015; Moore, 2015) capitalism is the principal cause for pervasive disparity and wealth gap in the current world (Maree, 2024). Guichard (2022b) pointed out in particular that is the significant human impact on the planet in “anthropo-capitalocene” era that requires a new framework for career and life design. He advocates for interventions in guidance and career counseling that encourage individuals to consider how their work and life choices can contribute to sustainable and equitable development.

Guichard (2022b) also advocated for interventions that help individuals and groups contribute to the broader goals of sustainable and equitable development. This involves not only preparing people for existing jobs but also encouraging them to engage in actions that address global challenges. Interventions should promote the design of active lives, and they could be developed based on the notion that the modern workplace can no longer be the social imaginary that people, especially young people, refer to when they consider their future. In this framework, Guichard (2022b) proposed interventions with the principal aim to help individuals and groups, and particularly young people to answer the question: “By what forms of active life can I contribute with others (thus can we contribute) to sustainable and fair development in solidarity?”

Redefining career intervention. The definition of interventions is too often based only on occupational careers vocabulary requiring us to introduce new horizons of reflection. Guichard (2022b) questioned the dominant view that career support should focus solely on optimizing individual employability within current market economies. He emphasized the value of research on support methodologies toward equitable and sustainable development that currently are not proposed. It is no longer effective or possible to reduce intervention to a “career development,” even if, for example, calls for it from the European Commission are essentially focused on issues of employability (Guichard, 2022b). He suggested developing educational workshops that focus on the skills needed to contribute to sustainable development, rather than just preparing for specific job roles. He also recommended creating community-based initiatives that promote local production and exchange systems, reducing

the ecological footprint of economic activities. Guichard (2022b) also reminded us of the value of skills and adaptability with new guidance and career counseling interventions that cannot elude focusing on sustainable and equitable development.

Redefining sustainable careers. Career adaptability, and its four dimensions of concern, control, curiosity, and confidence as the capacity to anticipate changes and envision one’s future within a dynamic environment (Savickas, 1996, 2005, 2011) and positive career planning attitudes (Rottinghaus et al., 2005) remain fundamental concepts to construct careers in the twenty-first century scenario. Meantime, sustainable development involves embracing an inclusive perspective of respect for nature as a whole (animals, plants, and the planet) incorporating future generations and future life on the Earth. From this perspective we need a new updated construct of sustainable careers. Currently a career is conceived as sustainable if it represents sequences of career experiences in continuity over time, spanning multiple social spaces, including individual agency, thus giving individual meaning (De Vos et al., 2020; Van der Heijden & De Vos, 2015). Added to this is a sustainable career ecosystem with individual, career practitioners, organizations at a local level and professional associations, governments and the new introduction of artificial intelligence as a new actor at a national level and at a global level (Donald et al., 2024). Looking closely, nature is still missing in this career ecosystem. The fourth paradigm asks for something more.

On the one hand calls to integrate the approach emerged within Corporate Social Responsibility regarding careers named sustainable if they are able to “contribute to greater environmental, social, human, manufactured and financial capital” (Bal, 2024, p. 193). On the other, it asks for integrating the construct of sustainable career with other aspects, to reach a construct anchored to a sustainable development in an inclusive perspective, completely protected from any individualistic myopia in an approach that considers of equal value themselves as well as others, near and far in space and in time, including future generations (Di Fabio, 2017b, 2023; Di Fabio & Tsuda, 2018) as well as the nature.

Decent work and sustainable careers. Following Guichard (2022b), the topic of decent work must also be included in planning our careers in a framework of inclusive sustainable development. So, it pertains to the fourth paradigm considering not only decent work (Duffy et al., 2016), but also decent lives (Di Fabio & Blustein, 2016; Di Fabio et al., 2023), and to pay attention to healthy lives (Kenny & Di Fabio, 2023). The attention to decent work emerged many years ago. The International Labor Organization (ILO, 2008, 2012, 2015, 2023) has been crucial over the years in promoting decent work as an aspirational human right (Di Fabio & Kenny, 2019). A psychologically inclusive and multidisciplinary approach is required, according to the psychology of working theory (PWT; Duffy et al., 2016), in order to increase

decent work for people who are marginalized and have limited work volition due to financial constraints. PWT emphasizes the importance of social and economic factors, viewing decent work as a primary outcome of the interplay between contextual, psychological, and economic factors.

Psychological reflection on decent work also includes the topic of sustainable livelihoods (Carr, 2023a, 2023b; Carr et al., 2023). By considering the connections between poverty, loss of decent employment, and work precarity, the psychology of sustainable livelihoods (Carr, 2021, 2023a, 2023b; Carr et al., 2016, 2018, 2023) adds to the acknowledged challenges of extreme poverty in the twenty-first century. This emphasizes the critical importance of interventions to reduce income inequality for fair and sustainable wages. The current turbulent situation necessitates considering contextual factors as well as how people construct meaning in their work and lives, as well as the challenges associated with sustainable livelihoods (Carr, 2023a; Carr et al., 2018).

The importance of building decent lives, firmly rooted in the fulfillment of one's own authenticity in order to achieve meaningfulness in both work and life emerged (Di Fabio et al., 2023). Furthermore, the recent shift from decent work to healthy work, as a result of recommendations made by the American Public Health Association emphasizing the connections between the ILO's notion of decent work and healthy work (APHA; Pratap et al., 2022), allows us to consider decent work to be an essential part of creating healthy lives (Kenny & Di Fabio, 2023).

Skills for sustainable careers. The fourth paradigm highlights the flexibility regarding skills in the current scenario: if in the twenty-first century some skills are no longer needed, it is necessary to re-skill, up-skill and crea(te)-skill (Di Fabio & Maree, 2016). This has to be considered also for career counselors and new interventions need to be included into school curricula, public office and private organizations inspired by the fourth paradigm. Training counselors to these new aspects of active life and sustainability and sustainable development (Guichard, 2022b) as well as harmonization, generativity and eco-generativity, arranging training courses for them such as refresher courses in public centers such as employment offices will be essential.

Conclusion

Sustainable development as a fourth paradigm for career guidance and counseling attends to answering the following question essential for the survival of humankind: "How the construction of decent human lives could contribute to sustainable equitable development?" (Guichard, 2022b). In so doing it can contribute to building healthy lives by offering contributions to prevent mental health concerns that are becoming increasingly important in the workplace and represent a source of many risks and costs for organizations

(Kelloway et al., 2023) at all levels, and in line with a preventive approach consistent with the well-being movement (Johnson et al., 2018; Robertson & Cooper, 2010) and focused on preventive enhancement of resources to enhance both physical and psychological well-being.

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