



“Green guidance”: which interventions for which problems?

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Abstract

Recently, career practitioners have been encouraged to help clients make career choices that are both environmentally and socially sustainable. However, to date, the career difficulties associated with this “green guidance” process have not been delineated. On the basis of the career development obstacles identified in the relevant literature, this article introduces a nonexhaustive typology of issues specific to the consideration of ecological and human factors in the context of career counseling. For each category of difficulty, examples are provided and practical suggestions are proposed. The contributions and limitations of this exercise are discussed, especially regarding its clarification of the role of career practitioners in promoting sustainability.

Keywords Green guidance · Career management difficulties · Career interventions

Résumé

Récemment, les praticiens de carrière ont été encouragés à aider les clients à faire des choix de carrière qui sont à la fois respectueux de l’environnement et socialement durables. Cependant, à ce jour, les difficultés de carrière associées à ce *conseil vert* processus n’ont pas été délimitées. Sur la base de les obstacles au développement de carrière identifiés dans la littérature pertinente, cet article présente une typologie non exhaustive des problèmes spécifiques à la prise en compte des facteurs écologiques et humains dans le contexte de conseil de carrière. Pour chaque catégorie de difficulté, des exemples sont fournis, et des suggestions pratiques sont proposées. Les contributions et les limites de cet exercice sont discutées, notamment en ce qui concerne sa clarification du rôle des praticiens de carrière dans la promotion durabilité.

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Zusammenfassung

In letzter Zeit wurden Karriereberater dazu ermutigt, ihren Klienten dabei zu helfen, Karriereentscheidungen zu treffen, die sowohl umweltfreundlich als auch sozial nachhaltig sind. Bislang wurden jedoch die mit diesem *grünen Beratungs* Prozess verbundenen Karriereschwierigkeiten nicht dargelegt. Basierend auf den in der relevanten Literatur identifizierten Hindernissen für die berufliche Entwicklung, stellt dieser Artikel eine nicht abschließende Typologie von Problemen vor, die spezifisch für die Berücksichtigung ökologischer und menschlicher Faktoren im Kontext der Berufsberatung sind. Für jede Kategorie von Schwierigkeiten werden Beispiele gegeben und praktische Vorschläge gemacht. Die Beiträge und Grenzen dieser Übung werden diskutiert, insbesondere in Bezug auf die Klärung der Rolle von Karriereberatern bei der Förderung der Nachhaltigkeit.

Resumen

Recientemente, se ha alentado a los profesionales de la carrera a ayudar a los clientes a tomar decisiones de carrera que sean tanto ambiental como socialmente sostenibles. Sin embargo, hasta la fecha, no se han delineado las dificultades de carrera asociadas con este proceso de “orientación verde.” Basado en los obstáculos de desarrollo de carrera identificados en la literatura relevante, este artículo introduce una tipología no exhaustiva de problemas específicos para la consideración de factores ecológicos y humanos en el contexto de la orientación profesional. Para cada categoría de dificultad, se proporcionan ejemplos y se proponen sugerencias prácticas. Se discuten las contribuciones y limitaciones de este ejercicio, especialmente en lo que respecta a su aclaración del papel de los profesionales de la carrera en la promoción de la sostenibilidad.

Recently, increasing but discreet attention has been given to the promotion of sustainable and responsible careers from both an ecological and a social perspective (Carosin et al., 2022; Di Fabio & Bucci, 2016; Di Fabio & Rosen, 2020; Guichard, 2013, 2016; Masdonati & Rossier, 2021; Plant, 2014; Rochat & Masdonati, 2019; Rochat & Rossier, 2023; Santilli et al., 2023; Young & Mundy, 2023). In fact, our era has witnessed multiple human and environmental crises that have highlighted the need for everyone to contribute to the development of sustainable solutions (Guichard, 2013, 2016). In a broad sense, sustainability refers to “the ability to maintain something undiminished over some time period” (Lele & Norgaard, 1996, p. 355). In 1987, the World Commission on Environment and Development connoted sustainable development as one that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (art. 27).

From this perspective, career counseling also has a role to play, particularly in helping individuals manage their careers in a way that contributes to the protection of the environment and society (Cohen-Scali, 2018; Di Fabio & Bucci, 2016; Guichard, 2016; Plant, 2014). The term “green guidance” (Di Fabio & Bucci, 2016; Plant, 2014) has thus been introduced to describe career counseling approaches that explicitly encourage clients to consider global ecological and

human needs (as defined, for example, by the United Nations' 2030 Sustainable Development Goals; United Nations, 2015) in their career choices, in contrast to career counseling approaches that help individuals make vocational decisions on the sole basis of their aspirations and the constraints and opportunities offered by their environment.

Accordingly, several interventions have been suggested to raise career clients' awareness of these issues and to identify the resources that enable them to act responsibly. These interventions include the use of targeted questionnaires (Di Fabio & Rosen, 2020), card games (Rochat & Masdonati, 2019), and lessons (Guichard, 2016), as well as dialogue (Masdonati & Rossier, 2021) and reflexivity interventions (Cohen-Scali, 2018). However, the issues and needs that are addressed by these tools, and therefore the context and timing of their application during the counseling process, remain vague. Specifically, it appears that the burgeoning field of green guidance has not yet identified all the difficulties that may arise when considering ecological and human needs in the context of career management, or consequently, developed targeted interventions to overcome them. To fill this gap, this article proposes to use a revised version of the taxonomy of career decision-making difficulties developed by Gati et al. (1996) to recognize the problems that individuals might face in their attempts to manage their careers in a way that explicitly integrates ecological and human factors.

The relevance of the taxonomy introduced by Gati et al. (1996), which is based on theoretical models of decision-making and the experiences of career counseling specialists, has been widely acknowledged internationally, both in terms of research and practice (e.g., Levin et al., 2023). Although the model was proposed in the 1990s, a recent critical review on the structure and measurement of career indecision concluded that Gati et al.'s (1996) taxonomy is still highly relevant for clinical purpose (Xu & Bhang, 2018). This model identifies ten major categories of career decision-making difficulties, namely: (1) lack of motivation, (2) indecisiveness, (3) dysfunctional beliefs, (4) lack of information about the choice process, (5) lack of information about the self, (6) lack of information about career alternatives, (7) lack of information about how to obtain additional information, (8) unreliable information, (9) internal conflicts, and (10) external conflicts.

Following Rochat's (2022) suggestion, for the purposes of synthesis, the categories "lack of information about how to obtain additional information" and "unreliable information" are combined here into the category "lack of information about career options." In fact, with the rise of new technologies, issues related to career information are now more related to an overload of information instead of a lack (Gysbers et al., 2014). Accordingly, in the current times, it seems relevant to group the concerns pertaining to the need to find appropriate career information sources, to assess their validity, and to understand them correctly (Hirschi, 2018a). Additionally, a new category entitled "lack of employability" is added to the model, which encompasses career management difficulties that go beyond the decision-making process per se (Rochat, 2022). All these categories of difficulties are reviewed in this context to identify some specific obstacles that could arise with regard to sustainable career management and to recommend potential interventions that are likely to be able to address them. At the end of this exercise, the contributions and limitations

of this approach are discussed, and the implications for research and practice are explicated.

The identification of sustainable career management difficulties and strategies for addressing them

Lack of motivation

Lack of motivation has been identified as a major obstacle for commitment to the career decision-making process (Gati et al., 1996) and the implementation of its results (Borgen & Maglio, 2007). According to the motivational system theory (MST; Ford, 1992), which is predominantly used in vocational psychology (see Chatterjee et al., 2015), being motivated requires having a clear and important goal in mind, which is perceived as achievable on the basis of our beliefs about our personal abilities and about the responsiveness of our context, and on our emotional appraisal of the situation (i.e., the emotions triggered by the goal). Therefore, a person's motivation to strive toward a goal can be summarized by reference to the importance that they attribute, such a goal, as well as their confidence in their chances of achieving it (Miller & Rollnick, 2012).

Lack of importance

A first difficulty for sustainable career management thus arises when clients do not perceive the need to take ecological and human aspects into consideration in their career. Given the emergencies and social crises that characterize the contemporary climate, it is reasonable to consider it necessary to evoke ecological and human aspects systematically during the career counseling process (Cohen-Scali, 2018; Guichard, 2016). However, these issues may fall outside clients' values or lack of priority due to structural, social, or personal constraints. In such cases, career practitioners can use different types of interventions to try and amplify career clients' concerns about these problems. For example, they can rely on the use of motivational interviewing (MI; Miller & Rollnick, 2012) strategies to try and enhance clients' interest in such issues while preserving their autonomy. MI techniques (such as scales of importance, the development of hypothetical scenarios, or the strategic use of targeted questions) have been suggested as promising ways of amplifying career clients' motivation to commit themselves to the career counseling process (see Stoltz & Young, 2013, for concrete examples). Additionally, interventions aimed at cultivating empathy and altruism (e.g., through meditation; Wallmark et al., 2013) could promote individuals' beliefs that their well-being is linked to that of the natural world (Cohen-Scali, 2018; Di Fabio & Bucci, 2016).

Lack of confidence

At the motivational level, a second difficulty can arise when clients doubt their ability to act for the benefit of the climate or society through their career. In fact, the

extent of social and ecological problems and their systemic nature can elicit a feeling that the scale of the threat exceeds the resources available to deal with it and thus lead to an experience of crippling impotence (Post, 2005). Accordingly, it is essential to help clients identify the resources available to lead a sustainable active life (Rochat & Masdonati, 2019). To this end, the implementation of MI strategies aimed at increasing clients' confidence toward achieving sustainable goals—such as the confidence scale, targeted questions, and the exploration of successes and qualities—can also be useful (see Stoltz & Young, 2013, for concrete examples). In addition, career practitioners can also use interest inventories (e.g., Donnay et al., 2005), personality (e.g., Costa & McCrae, 2010), or character strengths (Peterson & Seligman, 2004) to highlight the positive personal characteristics of clients and improve their self-confidence.

Indecisiveness

Career management efforts are sometimes hindered by the presence of indecisiveness—a persistent and generalized difficulty in making decisions, even insignificant ones (Gati, 2013). According to the model proposed by Saka and Gati (2007), this form of chronic indecision can be summarized in terms of two major factors: pessimism and anxiety. These two issues also frequently occur in the context of sustainability, as evidenced by the recent occurrence and growing popularity of the terms *collapsology*—the study of the risks and consequences of the collapse of our current civilization (Servigne et al., 2020)—and *ecoanxiety*—i.e., “a chronic fear of environmental doom” (Clayton et al., 2021, p. 71).

Pessimism

From the late eighteenth century, each of the industrial revolutions has, in its time, elicited waves of concern about the possible disappearance of work, fears that have not materialized thus far (Hirschi, 2018c). Nevertheless, the multiple ecological and social crises that characterize the contemporary era tend to aggravate pessimism regarding the future of the planet and that of humanity (Intergovernmental Panel on Climate Change, 2021). Although such fatalism can encourage the anticipation and resolution of certain problems, it can also ultimately lead to the development of particularly severe depressive states and ultimately to a feeling of powerlessness (Schueller & Seligman, 2008). Generally, to help people temper their harsh judgments about themselves and about the world, career practitioners can employ strategies drawn from cognitive and behavioral therapies (e.g., Law et al., 2014). In this context, clients can be asked, for instance, to find counterexamples to their assertions or to rephrase them in the form of questions (Rochat, 2022). A priori, such strategies could also prove useful for addressing the pessimism linked to sustainable career management (suggestions for addressing pessimism regarding the uncertainty of the future of occupations are discussed above).

Ecoanxiety

Moreover, career practitioners are accustomed to meeting clients who experience anxiety, for example, regarding the career decision-making process (Saka & Gati, 2007). This difficulty is mitigated mainly by understanding the causes of such anxiety and by helping career clients change their perceptions of the situation or the feelings elicited by it (e.g., Law et al., 2014). In the case of ecoanxiety, for instance, it would be wise to remind the client that anxiety is a healthy reaction to the threats posed by the climate and social crises (Desbiolles, 2020). A reasonable level of such unpleasant psychological states could also help individuals engage in the efforts necessary to protect the planet (e.g., Corral-Verdugo, 2012) and humanity. Reframing ecoanxiety in that way seems to be even more important given that reminders of the adaptive nature of the physiological reactions that occur under stressful conditions support people's tendency to behave appropriately and reduce their excessive focus on anxiety-inducing information (Jamieson et al., 2012). Additionally, short gratitude exercises (such as asking the person to take 15–20 min to write about up to five events for which they feel grateful) are known to temporarily reduce anxiety related to death (Lau & Cheng, 2011) and could therefore contribute to decreasing nefarious levels of ecoanxiety (Plumey, 2021).

Dysfunctional beliefs

In the career counseling process, dysfunctional beliefs can hinder the client's decision-making as well as limit the number of alternatives considered by the client, and thus lead to less-than-optimal career choices (Gati et al., 1996). Such beliefs refer to the idealized, erroneous, or extreme representations that the person may hold about the career choice process or about work (Hechtlinger et al., 2019). The persistence of climate change skepticism despite decades of scientific evidence highlights a similar ubiquity of dysfunctional beliefs with regard to ecological and humane sustainable development (see Hornsey & Lewandowsky, 2022). Hence, the green guidance process can be at the intersection of various dysfunctional beliefs.

Narrow vision of one's range of actions

The first product of this conjunction of erroneous beliefs is the narrow vision of the possible actions. In fact, within the green guidance framework, Cohen-Scali (2018) noted that it is essential to help individuals act to preserve the environment not only through their careers, but also in all aspects of their lives. Consequently, a first dysfunctional belief about sustainability may posit that it is only through one's career (or through one's private life, by contrast) that one can contribute to the climate and social well-being. This conviction turns out to be dysfunctional because it restricts clients' actions to one sphere of life rather than capitalizing on the complementarity among multiple such spheres (Rochat & Masdonati, 2019). To foster career clients' awareness of all their domains of action, career practitioners can suggest

performing a life role analysis (Brott, 2005). On the basis of this inventory, clients can be prompted to consider how they would like to or could participate in a more humane and sustainable world within each of their life spheres.

Narrow vision of occupations and workplaces

A second dysfunctional belief that is likely to hinder sustainable career management efforts posits that only occupations that are directly related to the protection of nature or of human beings can foster sustainable development. This belief conveys a reductive vision of occupations and workplaces as well as their potential contribution to the preservation (or destruction) of the living. It can also falsely embellish the reality of working in environmental or humanitarian fields, although such positions are no guarantee of the attainment of fulfillment or meaning in work (Cohen-Scali, 2018). In fact, a career's sustainability depends mostly on how and under which conditions the career in question is enacted, including its decency (e.g., Duffy et al., 2016). To help clients overcome such dysfunctional beliefs, career practitioners can encourage them to find examples of sustainable occupations or ways of working outside the traditional environmental and humanitarian field.

Lack of information about the sustainable career choice process

Career choices and career management are complex and somewhat specific processes that can be confusing for career clients. Consequently, several authors in the field have proposed theoretical models to specify the key stages (Gati & Asher, 2001; Niles et al., 2010; Sampson et al., 1999) and ingredients (Dawis & Lofquist, 1984; Holland, 1959) that must be considered during this process. These models are particularly useful in the context of green guidance, with the aim of helping career clients to understand which aspects they should consider according to the choice they face (e.g., choosing an initial or a continuing training path, occupation, or position).

Decision based on values

At present, the tendency is to emphasize the importance of personal values when making career decisions (Arthur & Rousseau, 1996; Hall, 1996), especially when trying to make sustainable decisions. However, occupations and training are generally neutral in terms of values; rather, it is mainly the conditions and ways in which they are enacted that give them (or fail to give them) an ecological or human tone (Rochat, 2022). Therefore, career practitioners may need to remind clients that their personal values are solicited mostly during the process of choosing a position, as opposed to an educational or an occupational path (Bagnoud-Siegenthaler, 2011). Considering the high psychological, economic, and social costs of career changes, this consideration is essential for adequately supporting midlife career changers in pursuit of a more sustainable career. In this process, career counselors must primarily clarify whether clients wish to change their occupation (because they have lost

interest in or feel incompetent with regard to it) or their position (to achieve a better match between their values and those of their work environment; e.g., Cohen, 2003).

Integration of sustainability into career management

Furthermore, career clients may also lack information about how to incorporate sustainability issues into their career management. Under such circumstances, career practitioners can introduce Winn's (2014) famous *Ikgai* diagram to explain that the most fulfilling career choices are usually at the junction of four critical aspects: (1) what we are good at (i.e., competences), (2) what we love to do (i.e., interests), (3) what we can be paid to do (i.e., opportunities), and (4) what the world needs (i.e., ecological and humane sustainability). The diagram thus emphasizes the importance of having a broader ecological or social purpose in mind when making a career decision (Ford & Smith, 2020). On the basis of this model, career practitioners can establish links between the *Ikgai* components and the career counseling activities that they can offer to their clients (e.g., assessment of interests and aptitudes or exploration of career alternatives). Strategies for helping career clients identify those of the world's needs to which they could contribute are presented in the next section.

Lack of information about the self

Self-knowledge is an essential component of career choice and career management, especially in uncertain times (Callanan et al., 2017). Usually, the career counseling process fosters information of the self through the assessment of interests, aptitudes, personality traits, and values (Greenwood, 2008). However, recent works emphasize the importance of fostering clients' awareness about their goals and resources to foster the realization of their career plans (e.g., Hirschi, 2018b). These endeavors seem highly useful in the context of green guidance, as many obstacles can hinder the success of sustainable development initiatives (e.g., Fonseca et al., 2021).

Motivating sustainable goals

In fact, regarding sustainable career management, career clients can lack information about those of the world's needs to which they can or wish to contribute (Di Fabio & Rosen, 2020; Guichard, 2016; Rochat & Masdonati, 2019; Santilli et al., 2023). In fact, sustainability is not limited to environmental protection, but rather includes all the economic, social, and human issues of our time. In 2015, the United Nations (UN) adopted 169 sustainable development targets, which are grouped into 17 key objectives to be achieved by its members by 2030 (United Nations, 2015). The diversity of these targets and objectives immediately emphasizes the fact that it is impossible for a single individual to participate in all these missions (Bodaira & Rochat, 2021). Therefore, it is important for career practitioners to help clients identify those about which they feel the most concerned and are ready to pursue. To accomplish this goal, Di Fabio and Rosen (2020) designed a questionnaire regarding the 17 UN objectives that prompts the person to indicate the extent to which they

are interested, motivated, and able to support each objective. Similarly, Rochat and Masdonati (2018, 2019) as well created a card game that asks individuals to rate the degree to which they feel concerned about the UN's goals, the spheres of their life in which they would like to contribute to those goals, and which of their character strengths they could mobilize to this end. In the same vein, Michel (2017) developed the Challenge Cards to help individuals approach sustainability issues as challenges instead of threats. These instruments can thus be used by career practitioners to help career clients identify those of the world's needs to which they could contribute.

Resources to contribute to sustainable goals

A second problem related to the lack of information about the self in the context of sustainable career management concerns the identification of the resources available for participating in the desired sustainable development goals. In the context of green guidance, these resources typically embody academic and vocational interests (Holland, 1959), personality traits (Costa & McCrae, 2010), values (Schwartz et al., 2012), abilities and skills (Dawis & Lofquist, 1984), and character strengths (Peterson & Seligman, 2004). After having helped career clients clarify their profile in terms of these dimensions, career practitioners can therefore ask them how they could use their resources to contribute to meeting those of the world's needs that particularly move them (Rochat & Masdonati, 2019). To include external factors in this resource assessment as well, career practitioners can inquire into the time, energy, social network, and material assets that clients could mobilize to attain such goals.

Lack of information about career options

Making an informed career decision requires adequate knowledge of the existing options. Nevertheless, such information is often overwhelming, complex, and rapidly evolving (Hirschi, 2018a). Accordingly, delivering information about career options has been evidenced as a key component of career counseling efficacy (Brown et al., 2000). Considering that the rapidly changing career landscape is both a driving force and a product of striving toward a sustainable future, the lack of information about the sustainable career options is likely to constitute a core difficulty in the green guidance process. More precisely, Gati et al. (1996) emphasize that the desire for more information about career options can concern both existing and future alternatives.

Existing sustainable career options

Recently, new occupations and training dedicated to the promotion of an ecological and human environment have started to emerge. However, it is sometimes difficult for individuals to grasp the wide variety of available information about occupations and training paths (Gysbers et al., 2014), to the point that sustainable career development can also be hampered by a lack of information about the available

sustainable career alternatives. Therefore, in addition to supporting career clients' ability to recognize how each career can serve the world's needs, career practitioners should stay informed about sustainable career alternatives (as they already do for other career and training options), or at least know where to find such information (Rochat, 2022). For example, the National Center for O*NET Development (2023a) provides several resources to identify sustainable career options, including a list of "green occupations," i.e., work activities that contribute to a sustainable development (Lobsiger & Rutzer, 2021). Additionally, there now exist several job search engines that are specialized in green jobs, which could help identify promising sustainable career possibilities¹. Nevertheless, it should be noted that this challenge is less a matter of obtaining and communicating such information than of referring individuals to relevant sources and helping them use the information to make decisions (Hirschi, 2018a).

Future sustainable career options

Eventually, all career choices (whether they intend to reflect ecological or human values or not) can be hampered by uncertainty about the future of jobs and the labor market (Gati et al., 1996; Xu & Tracey, 2014). Specifically, the ecological crisis and strategies aimed at reducing carbon emissions increase the unpredictability associated with the future of occupations in the context of work digitization and automation (Brynjolfsson & McAfee, 2014). Career practitioners may thus encourage career clients who express such concerns to inquire about experts' forecasts in this context (e.g., National Center for O*NET Development, 2023b) while nevertheless highlighting the fact that no one can predict the future of the labor market with certainty (Krumboltz, 2009). Therefore, it seems to be wiser to make career decisions on the basis of the existing options at the time of choice and to adjust that decision as things progress (Niles et al., 2010). Career practitioners may also underline the fact that occupations tend to evolve instead of appearing or disappearing (Hirschi, 2018c). This tendency implies that the future will not necessarily include greener or more humane careers, but rather that existing occupations will have stronger ecological and prosocial components. Finally, growing awareness of ecological and social concerns provides fertile ground for the emergence of companies that can offer new solutions to the world's needs, and career practitioners can suggest the path of entrepreneurship in response to uncertainty from a sustainable development perspective (Bonzon & Rochat, 2022).

Internal conflicts When making a career choice, individuals may experience internal conflicts and feel torn between the respective advantages and disadvantages of the career options they are considering (Gati et al., 1996). Recently, this type of career decision-making difficulty was found to be the fourth most prevalent among more than 32,000 individuals originating from seven countries (Levin et al., 2020). Accordingly, such internal conflicts are also likely to be manifest within the context

¹ For example, the website Climate Base (www.climatebase.org)

of green guidance, especially considering that the benefits of meaningfully contributing to sustainable development are often further in the future than the perceived drawbacks (see Kim et al., 2014).

Career ambivalence

Similarly, the prospect of adopting sustainable behaviors can elicit ambivalence (e.g., Hahn et al., 2021), that is, the simultaneous presence of arguments for and against this change (Miller & Rollnick, 2012). Consequently, interventions dedicated to exploring and resolving ambivalence toward ecological behaviors have begun to emerge (e.g., Randall & Brown, 2015). To help clients overcome ambivalence about sustainable career-related behaviors, career practitioners can employ the same strategies that they use when clients are hesitating to choose among various career options or changes, such as motivational interviewing (Rochat & Rossier, 2016), decisional scales (Janis & Mann, 1977), or emotion-focused approaches (Cardoso & Duarte, 2021). However, if the use of such strategies to encourage career clients to commit to prosocial and ecological behaviors is ethically justified by the urgency of the global situation, it is ultimately the case that career practitioners must nevertheless always respect their client's decision to do so or not to do so (Miller & Rollnick, 2012).

Career compromise

Another internal conflict that is likely to hinder the development of sustainable career plans is the aspiration to “save the world” through one's career. Such an ambitious goal can confront career practitioners with the dilemma of whether they should support or confront clients' aspirations (Cardoso et al., 2012). While commitment to challenging and optimistic career goals is associated with greater career success, pursuing overambitious goals can be very risky for people's mental health (Reynolds & Baird, 2010). To prevent disappointment and discouragement, career practitioners must occasionally help clients reassess and moderate their aspirations (Gottfredson, 1981). In this process, to preserve clients' enthusiasm and avoid becoming “dream breakers,” career practitioners must guide clients to become aware of the excess of their ambitions on their own as well as to develop alternative goals that are more realistic but still motivating if needed (Rochat, 2017).

External conflicts

When designing sustainable career plans, clients may also encounter disapprobation or opposition from others who are close to them. Gati et al. (1996) referred to this type of career difficulty as external conflicts. However, such external conflicts can be broadened beyond the family sphere to include conflicts between individuals' aspirations and structural constraints (Rochat, 2022). In fact, Duffy et al. (2016) emphasized the major contribution of structural factors such as economic constraints on the experience of positive career outcomes. Similarly, the success of the efforts to contribute to sustainable development at work is impacted and dependent upon

many organizational factors (e.g., Fonseca et al., 2021). Therefore, external conflicts are prone to punctuate the green guidance process.

Discrepancies regarding values

During green guidance processes, such conflicts can notably take the form of discrepancies between clients' values and their employer, which can lead the client to quit their job to find a position that is more in line with their values (Cohen, 2003). In such cases, career practitioners can encourage clients to explore the extent to which they already manage to act in a manner consistent with their values in their current workplace and how they could do so more effectively or in a different way to achieve better alignment or obtain more recognition (see the concept of "job crafting"; Wrzesniewski & Dutton, 2001). The results of such efforts to promote social and ecological values within the company could thus constitute an important indicator for the decision to resign or not to resign. If needed, the alignment of a position with the clients' values can then serve as an essential criterion for the subsequent job search process.

Perceptions of structural obstacles

Another external conflict that people may encounter in the development or implementation of sustainable career plans pertains to perceptions of structural obstacles that are beyond their control (e.g., the economic system, public policies, and discrimination; Blustein et al., 2019). However, there is a distinction between the presence of constraints and the feeling that one is still able to determine one's career path (Duffy et al., 2012). This nuance is crucial, as it encourages career practitioners to help clients anticipate their reactions to their current constraints. In fact, even if individuals are powerless with regard to what happens to them, they can nevertheless always decide how they react to it (Peck, 1978). By emphasizing this aspect, career practitioners can support clients in developing their psychological flexibility (i.e., the ability to identify problems and find multiple strategies to address them, which is an essential component of their well-being; Kashdan & Rottenberg, 2010) and empowerment. To accomplish this goal, career practitioners can notably encourage clients to explore ways in which they can avoid these constraints, actively fight them, analyze them to find their possible causes and seek a long-term solution, downplay them, or recognize their potential benefits (McGonigal, 2015).

Lack of employability

Increasingly, career theorists have underscored the need for clients to improve their employability—that is, their ability to manage their careers proactively by activating their personal and social resources to preserve their well-being, and address contingencies and obstacles (Hirschi, 2018a). In fact, well-being is typically considered as a desirable outcome of successful career path (e.g., Duffy et al., 2016). Nevertheless, not all the coping strategies to deal with career obstacles are associated with career

satisfaction (Lipshits-Brazilier et al., 2015). Similarly, well-being is both a desired outcome and a building block of sustainable development (e.g., Kjell, 2011). Therefore, the green guidance process is likely to question issues related to well-being and individuals' strategies mobilized to maintain or achieve it.

Sustainability as an obstacle to well-being

Among the difficulties related to the development of sustainable career plans that could fall into this category is the fear that pursuing ecological or prosocial career goals can decrease one's level of well-being. When encountering such a reaction, career practitioners can highlight to clients the distinction between hedonic well-being (i.e., the attempt to maximize pleasure and avoid unpleasant experiences) and eudemonic well-being (i.e., the investment in meaningful activities despite suffering; Deci & Ryan, 2008), while emphasizing the fact that engaging in altruistic behaviors can contribute strongly to the latter (Curry et al., 2018). In addition, they can encourage clients to consider how they could pursue sustainable well-being, that is, a form of well-being in which achievement contributes to the protection and development of others and of the Earth's resources instead of the exploitation thereof (Kjell, 2011).

Avoidance of the topic of sustainability

Eventually, a second difficulty that emerges in the development of sustainable career plans and that can be associated with a lack of employability pertains to situations in which clients feel too powerless to confront questions related to ecological and human problems and thus prefer to ignore them. In fact, when individuals encounter stressful situations, it is common for them to attempt to avoid the problem (Lazarus & Folkman, 1984) by denying it, forbidding themselves from thinking about it, avoiding facing it, or seeking distractions (Steptoe, 1991). However, while such strategies can provide short-term relief, they are rarely effective (e.g., Wenzlaff & Wegner, 2000), especially in the long term. Therefore, when they observe such tendencies, career practitioners can try to highlight clients' typical pattern of reactions to stress to identify the beliefs and emotions that may trigger the adoption of such avoidance strategies, and they can explore more effective alternative interpretations and behaviors (e.g., Law et al., 2014). Additionally, the strategies presented above with regard to helping clients become aware of their internal and external resources can also be used to find more efficient coping strategies.

Discussion

Strengths and limitations

The first objective of this article was to propose an initial taxonomy of the difficulties that are likely to arise in the development of sustainable career plans. The main difficulties are summarized in Table 1. This attempt highlights the importance of the

Table 1 Summary of the difficulties with sustainable career management identified in the article and the possible interventions suggested to address them

Difficulties	Suggested Interventions
1. Lack of importance	Using motivational interviewing strategies and/or cultivating empathy and altruism.
2. Lack of confidence	Using motivational interviewing strategies and quality inventories.
3. Pessimism	Encouraging clients to find counterexamples or reformulate their assertions.
4. Ecoanxiety	Reframing anxiety into a resource and/or suggesting gratitude exercises.
5. Narrow vision of one's range of action	Analyzing clients' life roles and possible contributions within each of them.
6. Narrow vision of occupations and workplaces	Encouraging clients to find counterexamples or reflect on illustrative cases.
7. Decision based on values	Recalling the variety of career choices (training path, occupation, and position) and the relevant factors for each of them.
8. Integration of sustainability into career management	Introducing the <i>Ikigai</i> model.
9. Relevant sustainable goals	Introducing the UN Goals for Sustainable Development.
10. Resources to contribute to sustainable goals	Using resource inventories and identifying external resources.
11. Existing sustainable career options	Staying informed and learning about new opportunities.
12. Future sustainable career options	Exploring and discussing forecasts, encouraging entrepreneurship.
13. Career ambivalence	Using motivational, cognitive or emotion-focused approaches.
14. Career compromise	Helping the client identify the obstacles to their objectives on their own as well as alternative objectives that would remain motivating.
15. Discrepancies regarding values	Exploring intrapreneurship or job crafting options as well as satisfying alternatives.
16. Perceptions of structural obstacles	Exploring the diversity of possible reactions toward constraints.
17. Sustainability as an obstacle to well-being	Distinguishing among hedonic well-being, eudemonic well-being, and sustainable well-being.
18. Avoidance of the topic of sustainability	Analyzing and revising the sequence of situations, thoughts, emotions, and reactions.

pioneering work already performed in this field (Carosin et al., 2022; Di Fabio & Bucci, 2016; Di Fabio & Rosen, 2020; Guichard, 2013, 2016; Masdonati & Rossier, 2021; Plant, 2014; Rochat & Masdonati, 2019; Rochat & Rossier, 2023; Santilli et al., 2023; Young & Mundy, 2023) and provides a temporary framework for organizing the tools and interventions suggested for this purpose. The second objective was to identify approaches and strategies that are likely to foster the resolution of these difficulties, with the goal of facilitating relevant interventions by career practitioners (Rochat, 2022). Interestingly, as illustrated in the second column of Table 1, this attempt emphasizes the fact that career practitioners already possess useful tools, skills, and experience that enable them to address these obstacles, an encouraging finding in light of the expected growth of such issues in the upcoming years. In so doing, this article also contributes to the task of delimiting the role and added value of career practitioners in regard to promoting sustainability, especially by distinguishing such career practitioners from other actors in the field (e.g., climate specialists, activists, economists, teachers, therapists), while nevertheless pinpointing possible synergies with them. For example, instruction regarding the various forms of work and their impact on the climate (Guichard, 2016) could be provided most effectively by teachers in schools who attempt to integrate career choice and sustainability issues into their educational projects (Canzittu, 2022).

Nevertheless, it should be noted that the proposals made thus far are limited because the difficulties examined in this context were theoretically driven by a model that was initially designed without explicitly considering ecological or human issues related to sustainability. Accordingly, it is likely that empirically identifying the difficulties encountered by clients who aim to consider the ecological and human dimensions in the context of their career choices—or an alternative model of career management difficulties (e.g., Gati et al., 1996; Hacker et al., 2013; Saka & Gati, 2007)—would lead to the identification of somewhat different issues. Therefore, the proposed taxonomy does not claim to be exhaustive or definitive but rather to represent a first attempt to address a global issue. Ultimately, this article focused on interventions for clients who are faced with the prospect of making choices for their career as opposed to people whose options are highly limited (e.g., due to structural obstacles, health or financial problems, or a low level of qualification). However, Duffy et al.'s (2012) aforementioned distinction between the objective presence of constraints and the perception of being able to make decisions despite these constraints (i.e., work volition) makes it possible to claim that even individuals who encounter significant obstacles with regard to the management of their career paths can aspire to contribute to ecological and human issues and thus benefit from the interventions presented here. For example, Bodoira and Rochat (2021) recently illustrated that a career intervention based on the UN's goals was relevant for a client who faced significant limitations in terms of her career opportunities due to major health problems.

Implications for research

To overcome these limitations, several avenues of research can be investigated, starting with an empirical validation of the proposed typology. Initially, a process

of identifying the frequent sustainable career management difficulties encountered by career clients could be implemented, such as the one undertaken by Gati et al. (1996) to support the development of their taxonomy of career decision-making difficulties. The elaboration of a validated tool would then allow us to assess the prevalence of such problems within different populations (e.g., Levin et al., 2020) and to develop targeted services for them. Subsequently, the effectiveness of the suggested interventions with regard to these difficulties could be tested empirically. Finally, it should be noted that, thus far, scientific works on sustainable career development issues have mainly been produced by European researchers (Carosin et al., 2022; Cohen-Scali, 2018; Di Fabio & Bucci, 2016; Di Fabio & Rosen, 2020; Guichard, 2013, 2016; Plant, 2014; Rochat & Masdonati, 2019; Rochat & Rossier, 2023; Santilli et al., 2023) and have primarily been published as book chapters or in scientific journals outside the field of vocational psychology. To increase scholarly attention to this topic, researchers from all around the world are therefore encouraged to investigate this topic and to submit their contributions to major international journals in the field.

Implications for practice

This article underlines the importance of being able to identify the sustainable career development difficulties of clients with the goal of addressing them appropriately. Such concerns can be mentioned spontaneously by clients, but career practitioners can also contribute to the task of highlighting them, for example, by asking clients to complete the open access Inventory of Difficulties in Embracing Active Life Sustainability (IDEALS; Rochat, 2021), which assesses the 18 issues related to the integration of ecological and human issues in career management listed above. This assessment can then help practitioners to select the most appropriate intervention to address salient issues. In this regard, it is important to clarify that the strategies described here are offered only as suggestions and that career practitioners must, in any case, adapt them to the unique situation and characteristics of their clients (Whiston & Rose, 2015).

Additionally, it should be noted that the entire article focused on an individual approach to career counseling, whereas it would also be relevant to explore the possibility of implementing collective interventions (e.g., in classrooms). In fact, contextual factors have a core importance in the success of sustainable development initiatives. For example, Fonseca et al. (2021) identified 19 organizational contextual factors that played a key role in successfully integrating sustainability processes, at both the social (e.g., stakeholders support and commitment), sociocultural (e.g., organization culture), and material (e.g., adequate information and resources) levels. Accordingly, the relevance and feasibility of clients' sustainable career projects must be examined considering the resources and obstacles present at these three levels. In addition, it is worth highlighting the fact that when the severity or nature of the career clients' difficulties ranges beyond the context of career counseling, practitioners must refer those clients to the appropriate specialists or associations (National Career Development Association, 2015). Eventually, given the important

links between sustainability and careers, this theme would benefit from being introduced into and investigated as part of both the initial and continuing training course of career practitioners. Moreover, the emphasis that this approach attributes to the difficulties encountered by individual career clients should not overshadow the fact that the actions necessary to promote a sustainable future also require a strong community and political mobilization (Guichard, 2016).

Conclusions

This article offered a nonexhaustive typology of issues that are likely to hinder the explicit consideration of ecological and human factors when managing one's career. The interventions introduced to address these issues emphasize the fact that although the topic is new, career practitioners are already well equipped to tackle those issues. The transition from career counseling to green guidance therefore requires career practitioners to make an ethical commitment to take these aspects into consideration when meeting new clients, but it does not require them to fundamentally revisit their skills. This article also outlines a possible clarification of the singular role of career practitioners within the vast landscape of sustainability stakeholders.

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Declarations

Conflict of interest I have no conflicts of interests to disclose.

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