

**Career self-management as resource management through action regulation:
Theoretical concepts and practice implications for promoting career management skills**

Dawa Schläpfer¹, Francisco Wilhelm¹, and Andreas Hirschi¹

¹ Department of Industrial and Organizational Psychology, University of Bern

Author Note

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Correspondence concerning this article should be addressed to Dawa N. Schläpfer,
University of Bern, Fabrikstrasse 8, 3012 Bern. Email: dawa.schlaepfer@psy.unibe.ch

Abstract

Career management skills are important in today's labor market, which is characterized by increased volatility, uncertainty, complexity, and ambiguity. This chapter aims to provide a better understanding of core career management skills by presenting a framework which sees career self-management as an active process of resource management. Based on this perspective, career self-management consists of building, maintaining, and applying knowledge and skills, psychological (motivational/ attitudinal), and contextual resources through various career self-management behaviors. We moreover suggest how career self-management skills can be enhanced throughout the lifespan by presenting career self-management as an action-regulation process. This process consists of four phases in terms of (1) goal setting and development, (2) mapping the environment for goal-relevant resources and barriers, (3) planning and execution of behaviors, and (4) monitoring and feedback processing. Based on this conceptualization of career self-management, we discuss how practitioners can assist clients in this process across different action regulation phases of career self-management.

Keywords: career resources, action regulation, career self-management, career self-management skills

Introduction

The fourth industrial revolution (Schwab, 2016) and the current developments in labor markets and global economies are presumed to bring volatility, ambiguity, and complexity to the professional environment for workers across the skills spectrum (Hirschi, 2018; Wilhelm & Hirschi, 2019). There is a shift in responsibility for career development from employers to employees (Arnold, 2005; Sultana, 2012) and a call for people to be proactive regarding their careers (Seibert et al., 1999). This is exemplified by projections that around half of the global workforce will require major re- or upskilling by 2025 (World Economic Forum, 2020). Likewise, the European Centre for the Development of Vocational Training (2008) points to the need for reforming guidance policies and practices to support learning at all ages and in a broad range of settings. According to the World Economic Forum (2020), the top skills which are seen as rising in prominence in the lead up to 2025 include skills in self-management, such as active learning, resilience, stress tolerance, and flexibility. The changes in career development due to such trends are likely to result in growing job and career insecurity, especially when workers are left to face these changes unprepared (Wilhelm & Hirschi, 2019) and require a high degree of personal initiative (Fay & Frese, 2001). Active career self-management is an important factor for achieving career wellbeing and satisfaction and puts emphasis on personal agency (Raabe et al., 2007; Wilhelm & Hirschi, 2019). Through promotion of career self-management, employees can be empowered to master their career-related challenges autonomously and develop individualized professional goals, identify their existing competencies, and take action to improve their careers, enabling them to access and effectively use the full range of resources within themselves and their environment.

The objective of this chapter is to provide a better understanding of career management skills based on conceptualizing career self-management (CSM) as an active

process of resource management (Hirschi et al., 2019; Hobfoll et al., 2018; Spurk et al., 2019). We further suggest how career management skills can be enhanced throughout the lifespan by presenting CSM as an action regulation process (Hirschi & Koen, 2021) consisting of four specific phases with corresponding necessary skills in CSM.

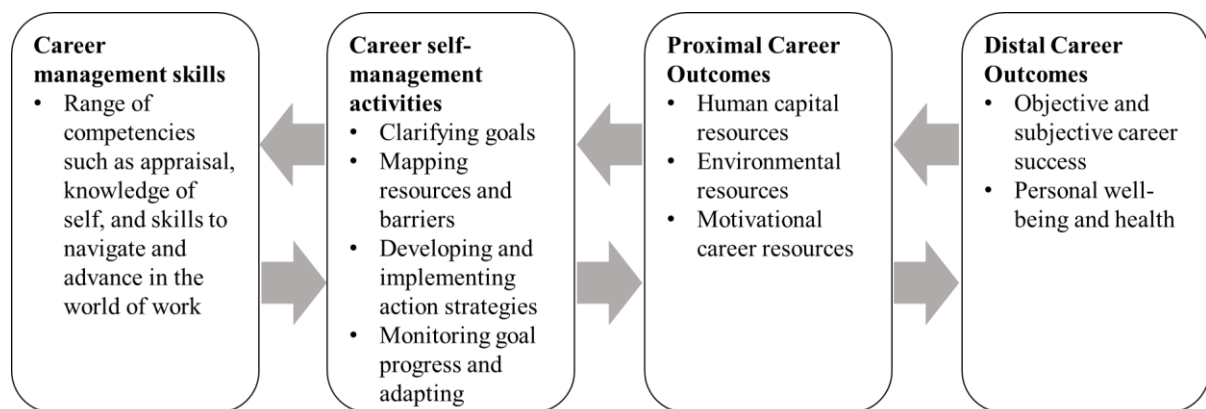
Career Management Skills

Career management skills have become an important focus in the implementation of vocational education programs and professional competency-based curricula in all European countries, yet a uniform definition of career management skills is difficult to achieve (Sultana, 2012). For example, Bridgstock (2009) defined career management skills as “the abilities required to proactively navigate the working world and successfully manage the career building process, based on attributes such as lifelong learning and adaptability” (p.34-35). Sultana (2012) defined career management skills as “a whole range of competences which provide structured ways for individuals and groups to gather, analyse, synthesise and organise self, educational and occupational information, as well as the skills to make and implement decisions and transitions” (p. 229). Yet a different take is presented by Hooley et al. (2013) who state that career management skills are used to describe skills, attributes, attitudes, and knowledge that individuals need to actively manage their careers in flexible and dynamic labor markets throughout the lifespan. Common across different definitions is the stated importance of career management skills to prepare individuals and make them capable of dealing with career-related challenges throughout their lives. All these definitions stress the importance of attitudes, abilities, competencies, or other aspects. However, which specific constructs constitute key career management skills remains difficult to discern. Definitions sometimes remain vague in this regard or existing frameworks consist of a large range of different facets, which are hard to put into a coherent framework. As stated by Hooley et al.

(2013), "...the notion of a Europe-wide 'reference framework' or 'blueprint' may be considered to be highly problematic." (p.120).

To address this issue and provide a theoretically grounded framework of career management skills, we herein conceptualize career management skills based on a resource management and action regulation approach to CSM. This framework expands and refines the understanding of career management skills in the way that key career management skills are skills necessary to successfully engage in CSM behaviors needed to build, maintain, and apply different types of resources to attain personally valued career goals (see Figure 1).

Figure 1. Framework of career management skills.



Career Self-Management as Resource Management

According to (Hirschi, 2012), conceptualizations of CSM in the literature often overlap considerably but also differ in their components. One common feature of different conceptualizations of CSM is that they usually focus on specific career management behaviors (Hirschi, 2012). CSM behaviors are intentional, self-initiated, self-targeted behaviors aiming at substantially enhancing work-related experiences in the mid- or long-term within and outside of organizational contexts (Wilhelm & Hirschi, 2019). Beyond its focus on proactive behaviors, CSM also encompasses cognitive components (Hirschi & Koen, 2021). Thus, CSM can be regarded as an umbrella term that includes various cognitive and behavioral activities to manage one's career (Hirschi & Koen, 2021), such as collecting

important information about one's values, interests, skill strengths and weaknesses, identifying career goals, executing career planning, skill development, networking, or boundary management (Claes & Ruiz-Quintanilla, 1998; King, 2004; Kossek et al., 1998; Noe, 1996; Sturges, 2008).

A second common feature of CSM is its focus on managing resources that are beneficial for career success and coping with career-related challenges (Hirschi, 2012; Lent & Brown, 2013; Spurk et al., 2018). Multiple resource frameworks have been developed, which often share the differentiation of personal resources (such as skills and attitudes) and social or contextual resources (such as social support) (e.g., Hirschi, 2012; Parker, 2002; Peeters et al., 2019). For example, the career resources framework (Hirschi, 2012; Hirschi et al., 2018) proposes three overarching dimensions of career resources: human capital resources, social/environmental resources, and motivational/psychological/identity resources. Each of these resource dimensions is composed of multiple specific career resources. The framework further suggests that career management behaviors have to be applied to develop, maintain, and apply these career resources.

This integrative view on CSM thus suggests that CSM is a process of resource management where successful career development across the lifespan consists of building, maintaining, and using different personal and environmental resources through the application of different career management behaviors. However, the career resources framework focuses more on the type of necessary resources to successfully develop a career and less on the process by which individuals can manage these resources effectively. To provide more focus on the process aspect as a foundation to identify key career management skills, we next present an action-regulation perspective on CSM.

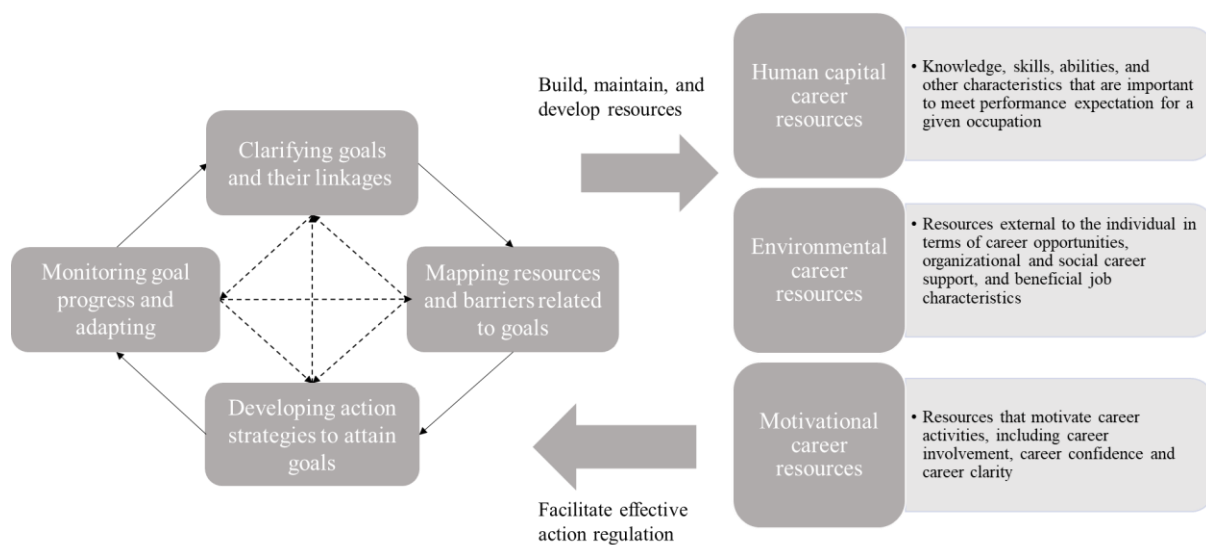
Career Self-Management as an Action Regulation Process

Action regulation theory is a general theory of human behavior and explains how cognitive processes are used to regulate goal-oriented behavior (i.e., action). Individuals are seen as active, embedded agents whose actions shape and are shaped by the environment (Frese & Zapf, 1994; Zacher & Frese, 2018). A central feature of the theory is the segmentation of action regulation into multiple phases: (a) goal development and selection, (b) mapping the environment for resources and barriers, (c) planning, (d) monitoring of execution, and (e) feedback processing, with the latter two sometimes merged into one phase (Hirschi, 2020). Persons do not necessarily adhere to the phases in a conscious and deliberative manner, nor do persons necessarily rigidly follow this sequence; rather the action process sometimes requires going back and forth or omitting steps in the action sequence (Zacher & Frese, 2018). Applied to CSM, this means that the action regulation of CSM can range from a highly conscious, proactive, integrated process to a more reactive process that occurs as a response to external cues and events (e.g. Barney & Lawrence, 1989; Gould & Penley, 1984; King, 2004, 2010).

Action regulation theory is useful for the present purpose of outlining key career management skills since it provides not only a *descriptive* account of the action regulation process but can also be used in a *prescriptive* account of what constitutes effective and successful action regulation. Several authors have drawn from the action regulation literature in building more practice-oriented work, such as a framework of job search quality (Van Hooft et al., 2013) or a whole-life career-counseling framework (Hirschi, 2020). Applying action regulation theory to CSM, we propose that successful CSM can be described in terms of the characteristics that each of the action phases and their associated outcomes should have (see Figure 2). For example, the clarifying goals and their linkages phase is successful when persons are aware of their motivations for selecting a goal and when the selected goal has properties such as high goal clarity and compatibility with other goals.

In sum, based on these theoretical frameworks, CSM is characterized by behavioral and cognitive activities that are integrated into an action regulation sequence and directed at the management of its primary outcomes, career resources. In turn, these resources facilitate effective and efficient action regulation, that is, they influence the quality of the career self-management process.

Figure 2. CSM as an action regulation and resource management process



An Integrative Model of Career Management Skills

Based on the proposed framework, the question arises which career management skills are needed to effectively regulate each of the action phases and master their associated tasks. For example, to make life/work-enhancing decisions (e.g., to pay more attention to one's work-life balance), one needs to clarify goals and understand the linkages between those goals. This involves clarifying demands associated with one's life roles, values that guide one's life, and the interrelation of the multiple goals persons strive for in their work-life and other life domains. Thus, self-awareness is an important career management skill for goal clarification, development, and selection (Greenhaus et al., 2010; Stickland, 1996) because it enables the successful execution of behaviors such as values clarification and prioritization. Based on the principal tasks associated with each action regulation phase, related career

management skills can be formulated that can be promoted in career guidance. Towards this, Table 1 gives a general overview of this issue. The framework allows to succinctly capture which principal tasks and aims exist for successful CSM, describe which career management skills are important in this phase, and how these skills can be promoted by corresponding career counselling activities. Next, we elaborate what each of the action regulation phases entail and point to possible career counselling activities related to each of the phases.

Phase 1: Clarifying goals and their linkages

The first phase of action regulation involves clarifying career-related goals and the linkages among these goals as well as the linkages with goals of other life-domains. Based on the 'Blueprint' framework for career management skills (Hooley et al., 2013) the important learning areas in this phase are the development of an understanding of oneself, to build and maintain a positive self-concept, as well as the making of life/work-enhancing decisions. The core aim of the first phase is the selection of centrally valued career goals that have beneficial properties, such as clarity, commitment, and compatibility with other goals (Van Hooft et al., 2013). Several tasks need to be accomplished to arrive at such goals. The clients need to understand their current most important life roles and what they want to achieve in their career, principled on their values. Furthermore, the clients need to consider how their goals relate to one another in terms of their complementary or conflicting linkages (Hirschi, 2020; Kruglanski et al., 2002).

Career management skills that are most important in this stage are referred to as self-awareness (Greenhaus et al., 2010; Stickland, 1996), knowing-why competencies (Parker, 2002), or reflective competencies (Akkermans et al., 2013). For example, in Akkermans et al.'s (2012) framework of career competencies, reflective competencies include *reflection on motivation* (i.e., the ability of people to reflect on values, passions, and motivation). Being clear on one's motivation helps to choose centrally valued goals.

Career counselling can assist clients in successful goal development and selection through values clarification and prioritization. For example, narrative and constructionist approaches (e.g., Savickas, 2012) could be used to help clients identify core values and construct meaningful identities across different roles. In addition, more traditional, quantitative self-assessments of values, vocational interests, or vocational preferences (Whiston, 2008) could be used to help clients identify meaningful career goals. Borrowing from other disciplines, the Acceptance Commitment Therapy branch of psychotherapy has also developed several interventions for the purpose of values clarification (Barney et al., 2018; Hayes et al., 2006). Note that to explore the linkages of career goals to nonwork goals, counselling needs to also take into account nonwork-related aspects of the client's life and major goals and demands in these roles (Hirschi, 2020; Savickas et al., 2009).

Phase 2: Mapping resources and barriers

The second phase involves mapping resources and barriers that facilitate or inhibit the attainment of the goals set in the first phase. The associated learning areas in this phase are the localization and effective use of life/work information as well as the understanding of the relationship between work and society/economy (Hooley et al., 2013). The key aim of the second phase is to identify personal (e.g., personality traits and competencies) and contextual (e.g., family, organizational, and societal factors) resources and barriers that help or inhibit goal attainment (Hirschi et al., 2019). It also includes reflection on one's attitude towards the possible obstacles and resources in the environment and oneself.

Key career management skills in this stage are knowing-whom competencies (Parker, 2002), career building skills (Bridgstock, 2009), and reflection on qualities (Akkermans et al., 2012). The identification of contextual resources and barriers is facilitated by knowing-whom competencies, which enable persons to identify which social resources (e.g., network contacts) they can use to achieve their career goals. The identification of personal resources is

facilitated by *reflection on qualities*, defined as “reflecting on strengths, shortcomings, and skills with regard to one’s personal career” (Akkermans et al., 2012, p. 249). Career building skills link contextual and personal resources and barriers by enabling persons to find and use information about one’s career and labor markets, and being able to effectively identify and choose the best opportunities for career development (Bridgstock, 2009).

In this stage of the framework, career counselors can help clients map internal and external resources and barriers and to define resources that they consider important with regard to their goals and want to use or promote in the further course of their career. Career counselors can assess clients’ resources and barriers that help/inhibit attaining their work-life goals (Hirschi, 2011). Career resources can be assessed in a structured manner through (semi-)structured interviewing or the use of a psychometrically validated questionnaire, such as the Career Resources Questionnaire (Hirschi et al., 2019; Hirschi et al., 2017) or the Career Adapt-Abilities Scale (Savickas & Porfeli, 2012). Regarding barriers, there are only a few quantitative assessments available, and a qualitative assessment may be more helpful since barriers are often less standardizable than resources. Clarifying individual resources can help clients to understand how their resources are associated with their goals and supports counselors and clients with a foundation to plan further actions to augment, maintain, or use existing resources.

Phase 3: Development of action strategies to attain goals

After clients’ career goals are clarified and related career resources and barriers are identified, the focus of the third phase lies in developing action strategies that help clients achieve their goals and assisting clients in implementing the action strategies. To achieve this, the longer-term abstract work-life goals identified in the first phase are translated into shorter-term, specific sub-goals. Considering resources and barriers as well as priorities and interdependencies among multiple goals and actions (Ballard et al., 2018; Unsworth et al.,

2014) is important for the creative generation of options for action and the translation of the goals into a concrete plan of action. Thus, the third phase of the framework includes the development of action strategies based on the knowledge of the previous two phases (Hirschi et al., 2020).

In the third stage, career counselors can thus support clients in developing specific action strategies under consideration of their resources and barriers (Zacher & Frese, 2018). Various possible action strategies have to be generated and evaluated. For example, strategies focused on human capital development will require a greater share of knowing-how competencies, while strategies focused on social resources (e.g., networks and mentors) will require knowing-whom and communicative competencies (Akkermans et al., 2013; Parker, 2002). Important skills for human capital development include *work exploration* (i.e., the active exploration and search for work-related and career-related opportunities on the internal and external labor market (Akkerman et al., 2013), and skills such as knowing how long to stay in a role, when to exploit new employment or training opportunities, and last but not least the ability to move quickly once an opportunity arises (Bridgstock, 2009).

Important skills for building social resources include *networking* competencies, defined as “the awareness of the presence and professional value of an individual network, and the ability to expand this network for career-related purposes” (Akkermans et al., 2012, p. 251) and *self-profiling* competencies, that is, the presentation and communication of one’s personal knowledge, abilities and skills to the internal and external labor market (Akkermans et al., 2012). If we take the ‘Blueprint’ framework for career management skills (Hooley et al., 2013) into account, the important learning areas in this phase are to interact positively and effectively with others, to create and manage a career plan that meets one’s career goals, to secure/create and maintain work as well as to maintain balanced life and work roles.

Counselors should ensure that the resulting action strategy is both flexible and specific enough. Specific and difficult goals have been shown to raise motivation (Latham & Pinder, 2005) and specific goals make it easier for the client to monitor goal progress. Thus, clients could be assisted and encouraged to develop more specific, lower level, proximal short-term goals and to identify specific actions that help to achieve the higher-order goals identified in phase one of the framework (Hirschi, 2019). Another component can be the consideration of goal multifinality (i.e., specific actions or lower-level goals can lead to the attainment of multiple higher-level goals) and equifinality (i.e., different actions or lower-level goals can lead to the same higher-level goal; Kruglanski et al., 2002, 2012). This helps clients to consider how actions affect multiple goal attainment, for example across different life roles. As an example, Hirschi et al. (2019) present four action strategies (i.e. allocating, changing, sequencing, and revising) that allow clients to develop strategies of how resources can best be deployed to meet goals across life roles, to identify ways how additional resources can be generated or how existing barriers can be reduced, to identify goals that can be postponed temporally to first focus available resources on other goals, and to change or abandon some goals to establish new goals that better fit with the available resources and barriers. Moreover, a positive attitude of clients towards their personal goals is important and can be encouraged by the counselor (Hirschi, 2011). For example, clients' confidence in their own abilities could be strengthened by pointing out role models who have achieved a similar career goal. In addition, any negative attitudes towards implementation should be discussed with the client.

Phase 4: Monitoring goal progress and adapting

Because career planning is a dynamic process that, especially in the face of a rapidly changing world of work, requires flexibility (Hirschi, 2011; Lent, 2013), personal goals and decisions can change in the course of one's career and should be reflected on continuously.

Thus, the core aims of the fourth and last phase are the monitoring of goal progress, obtaining feedback on how one is doing in relation to attaining goals, and processing this feedback to improve goal attainment (Zacher & Frese, 2018). This relates to the following learning areas: to change and grow throughout one's life, to participate in life-long learning supportive of life/work goals, and to understand the changing nature of life/work roles (Hooley et al., 2013).

Monitoring and adapting require meta-cognitive skills and a process-oriented mindset to ensure that clients are aware of complications arising during the implementation of their initial action strategies and to ensure behavioral flexibility in responding to these complications. Moreover, effective monitoring of goal progress requires clients to leverage feedback from others to overcome their blind spots. Obtaining feedback from others is therefore critical in this phase and can be achieved by direct inquiry or more indirectly via observing the reactions of others (Ashford & Cummings, 1983). Gaining honest and valuable feedback from others requires social and communication skills, but also emotion regulation skills. Seeking out positive feedback merely as a tool to feel good about oneself is unlikely to result in feedback that is truly valuable for goal attainment (Anseel et al., 2007). Therefore, clients need self-awareness to understand their motivations in seeking out feedback. Likewise, dealing with negative feedback requires emotion regulation skills: with a lack of emotion regulation skills, clients may dismiss negative feedback to protect their sense of self even when the feedback is accurate and potentially valuable to improve goal attainment. The behavioral career competency *career control* (i.e., the active influencing of learning and work processes) of Akkermans et al.'s (2012) framework of career competencies can be brought in connection with the fourth and last stage of the counseling framework.

In this phase, counselors and clients can reflect on what has changed, how the clients feel at the current time, and what important insights they have gained from the process. An

important component is the monitoring of the extent to which behaviors help to attain goals and adjust behaviors and action plans accordingly if goal progress is insufficient or too slow (Hirschi et al., 2020). The following questions could guide this process: “How did the clients experience the process of executing their action plans? Did they make progress towards their goals, and at the desired speed? What was unexpected? Which resources and activities could they use particularly well? Which resources and activities could be strengthened or still need to be promoted? Which obstacles did they confront and how did they handle them?” Perhaps the biggest current obstacle to successful counselling in this phase is that many career guidance offers do not allow for periodic ‘booster’ sessions that may occur months after the main stage of counselling is complete. Therefore it may be important to ensure that clients have means of engaging in this phase via self-directed activities such as workbooks. Another possibility is to use shorter online counselling sessions for such follow-up support, which might be easier to implement.

Table 1. Action regulation components, core tasks and aims, and associated career management skills

Phases of action regulation	Phase 1: Clarifying personally valued goals	Phase 2: Mapping resources and barriers	Phase 3: Developing action strategies	Phase 4: Monitoring goal progress and adapting
Learning areas	<ul style="list-style-type: none"> • Develop understanding of yourself to build and maintain a positive self-concept • Make life/work-enhancing decisions 	<ul style="list-style-type: none"> • Locate and effectively use life/work information • Understand the relationship between work and society/economy 	<ul style="list-style-type: none"> • Interact positively and effectively with others • Create and manage a career plan that meets your career goals • Secure/create and maintain work • Maintain balanced life and work roles 	<ul style="list-style-type: none"> • Change and grow throughout one’s life • Participate in life-long learning supportive of life/work goals • Understand the changing nature of life/work roles
Principal tasks and core aims in the stage	<ul style="list-style-type: none"> • Understanding and assessing the most important life roles • Identifying and reflecting on centrally valued goals in each life role • Clarifying and understanding the facilitating and inhibitory linkages between goals 	<ul style="list-style-type: none"> • Identifying and understanding available personal (e.g., characteristics and competencies) and contextual (e.g., family, organizational, and societal factors) resources and barriers that help/ inhibit goal attainment 	<ul style="list-style-type: none"> • Identifying and developing specific actions steps and strategies by breaking down longer-term abstract goals into shorter-term, specific sub-goals • Learning to prioritize goals and identifying goals that can temporarily be postponed • Formulating, changing, and developing new goals in accordance with resources and barriers 	<ul style="list-style-type: none"> • Specifying when and how to monitor if the actions correspond to plans and have the desired effects • (Self-)monitoring changes that occur in role expectations, resources, and barriers and necessitate adapting goals • Seeking, evaluating, and processing feedback, and adapt goals, action plans, and behaviors based on feedback of goal attainment and progress
Key career management skills	<ul style="list-style-type: none"> • Self-awareness • Knowing-why competencies • Self-management skills (i.e., perception and appraisal of one’s values, abilities, interests, and goals) • Reflection on motivation (i.e., the ability to reflect on one’s values, passions, and motivation) 	<ul style="list-style-type: none"> • Knowing-whom competencies • Career building skills (e.g., finding and usage of information about one’s career and labor market; being able to effectively identify and choose career development opportunities) • Reflection on qualities (i.e., reflection on strengths, shortcomings, and skills with regard to one’s career) 	<ul style="list-style-type: none"> • Knowing-how and knowing-whom competencies • Career building skills (e.g., representing one’s skills and abilities in an attractive way, creating strategic personal and professional relationships, knowing how long to stay, when to capitalize an opportunity, and the ability to move quickly when a new opportunity arises) • Communicative career competencies (i.e., networking and self-profiling) and behavioral competencies (i.e., work exploration) 	<ul style="list-style-type: none"> • Meta-cognitive skills • Emotion regulation skills • Career control (i.e., the active influencing of learning and work processes related to one’s career)

Conclusion

Due to the difficulties in the development of a European Blueprint (Sultana, 2012) and the fact that education systems are informed by different curricular and pedagogical traditions (Alexander, 2001; McLean, 1990) we presented a general framework based on theory that helps to provide an integrative view on career management skills. The proposed career management framework offers a systematic approach based on resource management and action regulation that can be a basis to derive career-counseling interventions. In career interventions programs, career management skills are considered as rising in importance, since they are critical for students, job seekers, and workers to succeed in their careers (Sultana, 2012). To facilitate career counselling activities for skills development, we broke down the rather abstract construct of career management skills to the level of individual action and clarified the skills required for successful action regulation in each of the action phases. The proposed framework describes a general process for different interventions which is versatile enough to allow integrating a range of specific counseling approaches and techniques and to be adapted to specific target groups. The framework could also be integrated into blueprints of more general career guidance frameworks (e.g., Hooley et al., 2013; Reardon, Lenz, Sampson, & Peterson, 2000) by providing a focus on the content areas that counsellors and programs should pay attention to (Hirschi, 2012). The herein proposed perspective and framework may be fruitful as a foundation for future career counseling practice and interventions as well as for policy-makers. Overall, the presented framework promotes a holistic view of career management skills and an active and flexible approach to achieve personally important goals in various areas of life.

References

- Akkermans, J., Brenninkmeijer, V., Huibers, M., & Blonk, R. W. B. (2012). Competencies for the Contemporary Career: Development and Preliminary Validation of the Career Competencies Questionnaire. *Journal of Career Development, 40*(3), 245–267.
<https://doi.org/10.1177/0894845312467501>
- Akkermans, J., Schaufeli, W. B., Brenninkmeijer, V., & Blonk, R. W. B. (2013). The role of career competencies in the Job Demands — Resources model. *Journal of Vocational Behavior, 83*(3), 356–366. doi:10.1016/j.jvb.2013.06.011
- Alexander, R. (2001). *Culture and pedagogy: International comparisons in primary education*. Routledge.
- Anseel, F., Lievens, F., & Levy, P. E. (2007). A self-motives perspective on feedback-seeking behavior: Linking organizational behavior and social psychology research. *International Journal of Management Reviews, 9*(3), 211–236.
<https://doi.org/10.1111/j.1468-2370.2007.00210.x>
- Arnold, J. (2005). *Managing Careers into the 21st Century*. Sage.
<https://doi.org/10.4135/9781446219034>
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance, 32*(3), 370–398. [https://doi.org/10.1016/0030-5073\(83\)90156-3](https://doi.org/10.1016/0030-5073(83)90156-3)
- Ballard, T., Vancouver, J. B., & Neal, A. (2018). On the pursuit of multiple goals with different deadlines. *Journal of Applied Psychology, 103*(11), 1242–1264.
<https://doi.org/10.1037/apl0000304>
- Barney, J. B., & Lawrence, B. S. (1989). Pin stripes, power ties, and personal relationships: the economics of career strategy. In M. B. Arthur, D. T. Hall & B. S. Lawrence (Eds),

Handbook of Career Theory (pp. 417-436). Cambridge: Cambridge University Press.

<https://doi.org/10.1017/cbo9780511625459.023>

Barney, J. L., Lillis, J., Haynos, A. F., Forman, E., & Juarascio, A. S. (2018). Assessing the valuing process in Acceptance and Commitment Therapy: Experts' review of the current status and recommendations for future measure development. *Journal of Contextual Behavioral Science*, *12*, 225-233.

<https://doi.org/10.1016/j.jcbs.2018.08.002>

Bridgstock, R. (2009). The graduate attributes we've overlooked: enhancing graduate employability through career management skills. *Higher Education Research & Development*, *28*(1), 31-44. <https://doi.org/10.1080/07294360802444347>

Claes, R., & Ruiz-Quintanilla, A. S. (1998). Influences of Early Career Experiences, Occupational Group, and National Culture on Proactive Career Behavior. *Journal of Vocational Behavior*, *52*(3), 357-378. <https://doi.org/10.1006/jvbe.1997.1626>.

European Centre for the Development of Vocational Training. (2008). *From policy to practice: A systemic change to lifelong guidance in Europe*. Luxembourg: Office for Official Publications of the European Communities.

Fay, D., & Frese, M. (2001). The Concept of Personal Initiative: An Overview of Validity Studies. *Human Performance*, *14*(1), 97-124.

https://doi.org/10.1207/s15327043hup1401_06

Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 4, pp. 271-340). Consulting Psychologists Press

Gould, S., & Penley, L. E. (1984). Career Strategies and Salary Progression: A Study of Their Relationships in a Municipal Bureaucracy. *Organizational Behavior and Human Performance*, *34*(2), 244-265. [https://doi.org/10.1016/0030-5073\(84\)90006-0](https://doi.org/10.1016/0030-5073(84)90006-0)

- Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2010). *Career Management*. Sage Publications.
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1–25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Hirschi, A. (2011). Wirksames Karrier-Coaching: Ein Grundlagemodell. *Organisationsberatung, Supervision, Coaching, 18*(3), 301-315. <https://doi.org/10.1007/s11613-011-0240-2>
- Hirschi, A. (2012). The career resources model: an integrative framework for career counsellors. *British Journal of Guidance & Counselling, 40*(4), 369-383. <https://doi.org/10.1080/03069885.2012.700506>
- Hirschi, A. (2018). The Fourth Industrial Revolution: Issues and Implications for Career Research and Practice. *The Career Development Quarterly, 66*(3), 192-204. <https://doi.org/10.1002/cdq.12142>
- Hirschi, A. (2020). Whole-Life Career Management: A Counseling Intervention Framework. *Career Development Quarterly, 68*, 2-17. <https://doi.org/10.1002/cdq.12209>
- Hirschi, A., Hänggli, M., Nagy, N., Baumeler, F., Johnston, C., & Spurk, D. (2019). Assessing Career Resources: Validation of the German-Language Career Resources Questionnaire [Article]. *Diagnostica, 65*(3), 133-141. <https://doi.org/10.1026/0012-1924/a000219>
- Hirschi, A., & Koen, J. (2021). Contemporary Career Orientations and Career Self-Management: A Review and Integration. *Journal of Vocational Behavior, 126*. 103505. <https://doi.org/10.1016/j.jvb.2020.103505>

- Hirschi, A., Nagy, N., Baumeler, F., Johnston, C. S., & Spurk, D. (2017). Assessing Key Predictors of Career Success. *Journal of Career Assessment, 26*(2), 338-358.
<https://doi.org/10.1177/1069072717695584>
- Hirschi, A., Nagy, N., Baumeler, F., Johnston, C. S., & Spurk, D. (2018). Assessing key predictors of career success: Development and validation of the Career Resources Questionnaire. *Journal of Career Assessment, 26*(2), 338-358.
<https://doi.org/10.1177/1069072717695584>
- Hirschi, A., Shockley, K. M., & Zacher, H. (2019). Achieving Work-Family Balance: An Action Regulation Model. *Academy of Management Review, 44*(1), 150–171.
<https://doi.org/10/gfgvrp>
- Hirschi, A., Zacher, H., & Shockley, K. M. (2020). Whole-life career self-management: A conceptual framework. *Journal of Career Development, 1-19*.
<https://doi.org/10.1177/0894845320957729>
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*(1), 103-128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
- Hooley, T., Watts, A. G., Sultana, R. G., & Neary, S. (2013). The ‘Blueprint’ framework for career management skills: a critical exploration. *British Journal of Guidance & Counselling, 41*(2), 117-131. <https://doi.org/10.1080/03069885.2012.713908>
- King, Z. (2004). Career self-management: Its nature, causes and consequences. *Journal of Vocational Behavior, 65*(1), 112-133. [https://doi.org/10.1016/s0001-8791\(03\)00052-6](https://doi.org/10.1016/s0001-8791(03)00052-6)
- King, Z. (2010). Career self-management: A framework for guidance of employed adults. *British Journal of Guidance & Counselling, 29*(1), 65-78.
<https://doi.org/10.1080/03069880020019365>

- Kossek, E. E., Roberts, K., Fisher, S., & Demarr, B. (1998). Career Self-Management: A Quasi-Experimental Assessment of the Effects of a Training Intervention. *Personnel Psychology, 51*, 935-962. <https://doi.org/10.1111/j.1744-6570.1998.tb00746.x>
- Kruglanski, A. W., Köpetz, C., Bélanger, J. J., Chun, W. Y. Orehek, E., & Fishbach, A. (2012). Features of Multifinality, *Personality and Social Psychology Review, 17*(1), 22-39, <https://doi.org/10.1177/1088868312453087>
- Kruglanski, A. W., Shah, J. Y., Fishbach, A., Friedman, R., Chun, W. Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. *Advances in experimental social psychology, 34*, 331–378. [https://doi.org/10.1016/S0065-2601\(02\)80008-9](https://doi.org/10.1016/S0065-2601(02)80008-9)
- Latham, G. P., & Pinder, C. C. (2005). Work Motivation Theory and Research at the Dawn of the Twenty-First Century. *Annual Review of Psychology, 56*(1), 485–516. <https://doi.org/10.1146/annurev.psych.55.090902.142105>
- Lent, R. W. (2013). Career-Life Preparedness: Revisiting Career Planning and Adjustment in the New Workplace. *The Career Development Quarterly, 61*(1), 2-14. <https://doi.org/10.1002/j.2161-0045.2013.00031.x>
- Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology, 60*(4), 557–568. <https://doi.org/10.1037/a0033446>
- McLean, M. (1990). *Britain and a single market Europe: Prospects for a common school curriculum*. Kogan Page/Institute of Education, University of London.
- Noe, R. A. (1996). Is career management related to employee development and performance? *Journal of Organizational Behavior, 17*, 119-133. [https://doi.org/10.1002/\(SICI\)1099-1379\(199603\)17:2<119::AID-JOB736>3.0.CO;2-O](https://doi.org/10.1002/(SICI)1099-1379(199603)17:2<119::AID-JOB736>3.0.CO;2-O)
- Parker, P. (2002). Working with the intelligent career model. *Journal of Employment Counseling, 39*(2), 83–96. <https://doi.org/10.1002/j.2161-1920.2002.tb00840.x>

Peeters, E., Nelissen, J., De Cuyper, N., Forrier, A., Verbruggen, M., & De Witte, H. (2019).

Employability Capital: A Conceptual Framework Tested Through Expert Analysis.

Journal of Career Development, 46(2), 79–93.

<https://doi.org/10.1177/0894845317731865>

Raabe, B., Frese, M., & Beehr, T. A. (2007). Action regulation theory and career self-management. *Journal of Vocational Behavior, 70*(2), 297-311.

<https://doi.org/10.1016/j.jvb.2006.10.005>

Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J.-P., Duarte, M. E., Guichard, J., Soresi, S., Van Esbroeck, R., & van Vianen, A. E. M. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational Behavior, 75*(3), 239–250. <https://doi.org/10.1016/j.jvb.2009.04.004>

Savickas, M. L. (2012). Life design: A paradigm for career intervention in the 21st century. *Journal of Counseling & Development, 90*(1), 13–19. <https://doi.org/10.1111/j.1556-6676.2012.00002.x>

Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior, 80*(3), 661-673. <https://doi.org/10.1016/j.jvb.2012.01.011>

Schwab, K. (2016). The fourth industrial revolution. Crown Business.

Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999, Jun). Proactive personality and career success. *Journal of Applied Psychology, 84*(3), 416-427.

<https://doi.org/10.1037/0021-9010.84.3.416>

Spurk, D., Hirschi, A., & Dries, N. (2019). Antecedents and outcomes of objective versus subjective career success: Competing perspectives and future directions. *Journal of Management, 45*(1), 35-69. <https://doi.org/10.1177/0149206318786563>

- Stickland, R. (1996). Career self-management—can we live without it? *European Journal of Work and Organizational Psychology*, 5(4), 583–596.
<https://doi.org/10.1080/13594329608414881>
- Sturges, J. (2008). All in a day's work? Career self-management and the management of the boundary between work and non-work. *Human Resource Management Journal*, 18(2), 118-134. <https://doi.org/10.1111/j.1748-8583.2007.00054.x>
- Sultana, R. G. (2012). Learning career management skills in Europe: a critical review. *Journal of Education and Work*, 25(2), 225-248.
<https://doi.org/10.1080/13639080.2010.547846>
- Unsworth, K., Yeo, G., & Beck, J. (2014). Multiple goals: A review and derivation of general principles. *Journal of Organizational Behavior*, 35(8), 1064–1078.
<https://doi.org/10.1002/job.1963>
- Van Hooft, E. A. J., Wanberg, C. R., & van Hoye, G. (2013). Moving beyond job search quantity: Towards a conceptualization and self-regulatory framework of job search quality. *Organizational Psychology Review*, 3(1), 3–40.
<https://doi.org/10.1177/2041386612456033>
- Whiston, S. C. (2008). *Principles and applications of assessment in counseling*. CA: Brooks/Cole, Cengage Learning.
- Wilhelm, F., & Hirschi, A. (2019). Career Self-Management as a Key Factor for Career Wellbeing. In I. Potgieter, N. Ferreira, M. Coetzee (Eds), *Theory, Research and Dynamics of Career Wellbeing* (pp. 117-137). Springer. https://doi.org/10.1007/978-3-030-28180-9_6
- World Economic Forum. (2020). *The future of jobs - Report 2020*.
- Zacher, H., & Frese, M. (2018). Action regulation theory: Foundations, current knowledge, and future directions. In N. Anderson, D. S. Ones, C. Viswesvaran, & H. K. Sinangil

(Eds.), *The SAGE Handbook of Industrial, Work, & Organizational Psychology* (2nd ed., Vol. 2, pp. 80-102). Sage.