28 Sustainable careers then and now[1]
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Sustainable careers, those focusing on individuals' continuing employability in jobs that facilitate their personal development over time, have been the underlying ideology of careers research for many years. Certainly it was a concern of ours 25 years ago when we edited the *Handbook of Career Theory* (Arthur et al., 1989). However, until now, this philosophy has been largely implicit. The world of work has changed a good bit since 1989. Career opportunities and limitations have transformed dramatically and these changes support the need for making this philosophy explicit.

We live in a global knowledge economy: many products and services are sourced by an international workforce and aimed at global rather than national markets. In 1989, the Internet was in embryonic form and only available to a small group of academic researchers. It now conveys a major portion of all information available and connects people both inside and across countries. Economic booms and busts have become connected as well, so it matters if China devalues the yen or the countries in the European Union consider eliminating the euro. All of this has had an inevitable effect on the way people experience work over their lives. The chaotic nature of and interdependence between economic environments have made sustainable careers an increasingly salient concern for individuals and organizations.

Our goal in this chapter is not to provide any conclusions about sustainable careers but rather to explore some personal reflections. As a point of departure, we consider sustainable careers as including two components: employability and workability (De Vos and De Prins, 2014; De Vos and Gielens, 2014). Employability is the extent to which workers in any society have the opportunity to be employed, in both the short and the long term (Forrier and Sels, 2003, p. 642).[2] Workability is the extent to which jobs represent reasonable, long-term expectations from employees, without overambitious challenges in a job today that result in burnout tomorrow (De Vos and Gielens, 2014, p. 14). This long-term perspective presents substantial challenges. Sustainable careers require facilitating career growth and security for all workers, promoting the concept of individual career ownership throughout the workforce and pursuing a proactive, systemic approach to careers rather than capitulating to short-term challenges (De Vos and Gielens, 2014, pp. 14–15; Van der Heijden and De Vos, Chapter 1, this volume).

Each of us has engaged with these challenges through largely separate journeys over the last 25 years. To help arrive at our thoughts about sustainable careers we begin with how careers were understood theoretically before 1989, why we embarked on the journey that led to the *Handbook of Career Theory* and what has happened since. We follow with brief summaries of the work each of us pursued after the *Handbook*'s publication. Next, we offer our joint reflection on how our thoughts relate to sustainable careers. We conclude with some pointers for further research.

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CAREER RESEARCH FROM 1950 TO TODAY

There are several excellent histories of careers research (for example, Moore et al., 2007; Sullivan and Baruch, 2009; Sullivan and Crocitto, 2007) that we will not repeat here. The following provides a selective overview of the conceptual developments that led to our own work on the *Handbook* and afterwards.

Looking backward, we see career theory and research as evolving during three time periods divided roughly as: 1950–1970 in which the focus was individuals *or* organizations *or* occupations;[3] 1970–1989 with a focus on individuals *within* organizations and occupations, and 1989 to the present, which expanded to focus on individuals *within*, *outside and across* organizations and occupations. Adding sustainable careers to this mix is defining a fourth stage in which the focus is on self-actualizing careers, careers that allow individuals to realize their full potential, and access to the social contexts which facilitate that realization.[4] It also includes the organizational side of the equation. What kinds of requirements do such careers place on organizations and society and to what extent can scenarios that enable both individual workers and organizations be designed? In this fourth stage, we see careers as emerging into a territory that more explicitly includes an ideological component: the more sustainable the career, the more self-actualized are individuals' experiences of them and the more effective individuals become in contributing to organizational performance. We view this development with enthusiasm and a sense of optimism towards the future of the field.

INDIVIDUALS *OR* ORGANIZATIONS *OR* OCCUPATIONS (1950–1970)

The Human Relations school of management inquiry, generally attributed to Roethlisberger and Dickson (1939), was the first to recognize that the best interests of organizations were wisely served by accommodating and tapping the best interests of employees. However, early careers research generally focused on either individuals and their careers or on the organizations and occupations in which they worked. In 1970, careers research in the United States and much of the rest of the world was weaning itself off post-WWII assumptions. William Whyte's (1956) *Organization Man* worked in and was committed to the requirements of large, hierarchical organizations. And although these organizations exhibited considerable diversity, including R&D laboratories, churches, aerospace firms and government agencies, employees operated with a common understanding of the expected relationship between individuals and the organizations in which they worked. As Whyte (pp. 3–4) noted:

> They are all, as they so often put it, in the same boat. Listen to them talk to each other over the front lawns of their suburbia and you cannot help but be struck by how well they grasp the common denominators which bind them. Whatever the differences in their organization ties, it is the common problems of collective work that dominate their attention

Focus on Individuals' Careers

Early research on careers reflected these common problems. With life-time employment, large organizations could afford to study their human resources: what kinds of employees were most likely to be successful? What skills, knowledge and abilities were required for each job? In 1956, Douglas Bray (Bray et al., 1974) started what became a landmark, longitudinal study of management careers at AT&T.[5] The idea was to examine the nature versus nurture explanations for good managers (Howard and Bray, 1988, p. x in preface). One perspective held that good managers could be identified at hiring using their individual characteristics, whose later development was accomplished by 'maturing'. The other perspective maintained that good managers could develop through planned experiences, such as job rotation or training. The answer that both are important seems obvious today, but at the time, the idea that managers could be developed was rather new. The idea behind this work was to maximize the value of employees to their employers.

Another line of research focused on individuals and their initial choice of career. The idea was that individuals should choose careers in which their likes and dislikes of various kinds of work matched existing profiles of people in those occupations. Several vocational choice tests emerged of which the two oldest and most well known are the Strong Vocational Interest Inventory (Strong, 1926; 1927) and the Kuder Preference Record (Kuder, 1939). Given life-time employment, individuals' work was assumed to remain constant over time. If people switched jobs, it usually meant a change in position or organization, for instance from a line to staff job, rather than a change in work, such as from a public school teacher to a truck driver. Thus, there was little interest in the time dimension of careers except for an acceptance that some people got promoted faster, and maybe worked the system better, than others.

Focus on Organizations or Occupations as Careers

Sociologists were also studying careers (for example, Caplow, 1953; Caplow and McGee, 1958) but using a different conceptual lens. Instead of focusing on individuals, they focused on the work environments in which individuals worked: their occupations and institutions. Much of this work focused on social stratification and its consequences, but one particular branch of sociology, the so-called 'Chicago School', emphasized the interplay between workers and their environments (Goffman, 1961; Hughes, 1958; 1962). Everett Hughes and colleagues such as Howard Becker and Anselm Strauss were looking at the effects of social context, such as socialization into the medical profession or becoming 'taxi dancers' – women paid to dance with men in twentieth-century dance halls – where role perceptions and identities developed over time (Becker, 1961; Cressey, 1932; Strauss, 1962). For instance, Becker's *Art Worlds* (Becker, 1982; 2008) examined the interstitial community of artists, suppliers, dealers and buyers that created the social context in which art was produced. This kind of work foreshadows current research, for instance, on institutional rules that link entrepreneurial careers in the US film industry (Jones, 2001).[6]

These research streams did not focus on sustainable careers. One prescribed individuals' careers as requiring fit with the organization, another that individuals' interests

should fit those of others currently holding the occupation and the third focusing on the description and implications of occupational contexts. Some scholars did study topics that are central to sustainable careers, such as integrating effective organizational design with jobs fostering workers' psychological health (Argyris, 1964) and work and family issues (Bailyn, 1970; Dyer, 1955; Rapoport and Rapoport, 1965). Yet, for the most part, these efforts were not coordinated.

INDIVIDUALS *WITHIN* ORGANIZATIONS OR OCCUPATIONS (1970–1989)

Starting in the mid-1970s, a small group of scholars, initially working from US institutions at Boston University, Brigham Young University, Harvard Business School, Massachusetts Institute of Technology, the Naval Postgraduate School and the University of Southern California, coalesced around a new vision for career research. It represented a conceptual shift from careers as individual experiences that remained relatively constant to careers as individual experiences over time in which workers were explicitly situated within and influenced by the organizations in which they worked (Derr and Schein, 1978; Hall and Lerner, 1980). As noted by Schein: '(n)either organizational effectiveness nor individual satisfaction can be achieved unless there is a better matching of what the organization needs and what the individuals who spend their working lives in those organizations need' (1978, p. 243). This situated approach was more closely associated with sustainable careers. It established the deep connection between individual careers and social context as the phenomenon of interest.

There was in addition a shared sense that studying careers didn't fit solely in any of its traditional disciplines: vocational psychology (Super, 1957), career development (Osipow, 1968) or sociology (Hughes, 1958). The phenomenon seemed more complex than the explanations. With this in mind, the group started meeting semi-annually to explore a more interdisciplinary approach. Three landmark books were published by members of this group between 1976 and 1978: *Careers in Organizations* (Hall, 1976), *Organizational Careers: Some New Perspectives* (Van Maanen, 1977), and *Career Dynamics: Matching Individual and Organizational Needs* (Schein, 1978). The field had grown from studying either individuals in organizations *or* the occupations in which they worked, to individuals working *within* organizations or occupations.

Recognizing that it was important to disseminate these ideas through an open discussion within the academic community, the group reorganized and expanded in the summer of 1978 as the 'Careers Interest Group', a spinoff of the Organization Behavior Division of the Academy of Management. This interest group provided the meeting ground in which the three of us began working together.

We wanted to contribute to the momentum established by the 1970s and 1980s group and started the *Handbook of Career Theory* with two goals in mind. One was to review the historical underpinnings of career theory and the other was to add a more explicit interdisciplinary agenda to career research. For Part I, we invited a group of well-known scholars to summarize the current 'state of the art' in extant career-related disciplines. The flow of these nine chapters was meant to be evolutionary in that they were arranged chronologically, from psychology with person-occupation matching, sociology with

careers as social roles, and then, what was more recent at the time, work on adult development with organizational and minority careers.

For Part II, the emerging perspective on careers meant that all work-related research was relevant. We wanted the *Handbook* to explore this territory because there was little work that focused across disciplines or levels of analysis. As we were not ourselves experts in many of these fields, we invited prominent scholars from other fields to apply their perspectives to careers and address a 'what if?' What kind of theory might we generate if we examined careers from the perspective of someone whose research involved labor–management relations, blue-collar workers or production and manufacturing? What if we applied ideas from anthropology about rites of passage? What if we examined careers from a political science perspective?

We used two attributes to define the terrain: the discipline in which the work was done and the level of analysis at which the work was conducted. These attributes included a large number of disciplines. A short list includes psychology, social psychology, sociology, anthropology, political science, strategy and economics. The levels of analysis also occupy a vast space, including individuals, mentors and mentees, couples, families, social networks, organizations, occupations, cultures, internal labor markets, industries, nations and probably others we didn't consider. The book concluded with three chapters written by scholars charged to encourage a dialogue across the past and future-looking perspectives on career theory.

INDIVIDUALS *WITHIN, INSIDE* AND *OUTSIDE* OF ORGANIZATIONS AND OCCUPATIONS (1990 TO PRESENT)

When we look back, we see the *Handbook* as another transition point, a first step in moving forward from the 1970s' and 1980s' work on individuals *within* organizations to the 1990s' work on individuals *within*, *inside* and *outside* of organizations and occupations (for example, Arthur and Rousseau, 1996). The book made several contributions to this transition. One was providing an enduring definition of career: 'The evolving sequence of individuals' work experiences over time' (Arthur et al., 1989, p. 8). We did not know what the future would bring, but moving forward required a definition with sufficient breadth to remain inclusive of unexpected metamorphoses in the work environment.

This definition, which focuses on individuals who work in any context, allows the social and economic conditions within which they work to change. It provides an umbrella for topics such as working identity (Ibarra, 1999; 2003), early career underemployment (Verbruggen et al., 2014), contingent workers (Barley and Kunda, 2005; Liden et al., 2003), human resource strategy and labor markets (Cappelli, 1999; 2008) as well as mechanisms that influence how careers are experienced, such as reference groups (Grote and Hall, 2013; Lawrence, 2006), structural holes (Burt, 1992), resources and signaling (Castilla et al., 2013). In other words, independent of socio-economic, historical and technological change, this definition encompasses sustainable careers now and, to the extent possible, the future.

Another contribution was legitimizing the basic assumption established by scholars in the 1970s and 1980s that the phenomenon of interest is careers, independent of the

scholar's academic background and that, as a result, career theory and research requires an interdisciplinary perspective. This does not mean that every study needs to be interdisciplinary: sometimes it is even difficult to decide what interdisciplinary means. Rather, it means that each should acknowledge its contribution to and place within this broad picture of the phenomenon. This is in keeping with viewing sustainable careers as a desirable perspective because it means our research requires that the needs of both individuals and organizations be considered. Most studies will not include both, but when there is only explicit empirical focus on one, we can still look for explicit discussion of the other.

In 2014, the literature suggests that all this activity since the 1970s has created a vibrant community. Yet many careers scholars feel careers research has not accomplished its interdisciplinary promise. There are good arguments on both sides surrounding the question of specialization versus generalizability. For this discussion, we define careers research loosely as research authored or inspired by scholars in the broader careers community identifiable by members' attachments to the Academy of Management (AoM), the European Group on Organization Studies (EGOS) or both.

Specialization

On the specialization side, scholars have been successful in creating a new, specialized field related to both organizational behavior and theory. While we were working on the book and after its publication, many developments helped consolidate and support these nascent ideas. The Careers Interest Group of the Academy of Management became a formal Division, and the growth in careers scholarship was underway. This burgeoning development produced a concurrent expansion in the breadth of the dialog. Examples include *The Boundaryless Career* (Arthur and Rousseau, 1996), the *Handbook of Career Studies* (Gunz and Peiperl, 2007), *The Psychology of Working: A New Perspective for Career Development, Counseling and Public Policy* (Blustein, 2006) and this volume.

As a quick check on the success of specialization, we examined articles with the word 'career' in their title, comparing those published in 1989 with those published in 2013.[7] We offer the following observations.[8]

First, interest in careers research seems to have increased dramatically. In 1989 there were 462 articles published with the word 'career' in their title. In 2013, that number increased by 250 percent to 1137. International interest has also grown dramatically. In 1989, the number of countries represented by authors of career articles was 23. In 2013, that number increased by 320 percent to 74. The list now includes a diverse set of countries including China, Uganda, Venezuela, Malta, Slovenia, Russia and Saudi Arabia. Moreover, the author list has become more diffuse by country. The proportion of articles whose authors come from the United States has declined from 52.3 percent in 1989 to 40.1 percent in 2013, which is a positive development because it indicates increasing international interest in the topic.

Second, the field has benefited from the growth of the Internet and its effect on global communication. As noted earlier, the Internet was nascent in 1989. In 2015, we take it for granted, with its connecting blogs and URLs used for discussion and debate, from professional association discussion boards to listservs devoted to specific topics, to organized social media such as Facebook, LinkedIn, and ResearchGate. In 2001 scholars convened the first careers track at the EGOS meeting. Careers scholars established

and have maintained a regular presence at this conference since that time. Research connections between scholars in the United States and scholars from other countries have burgeoned.

Generalizability

On concerns for generalizability, there is less evidence of success. Most careers research is not published in mainstream organizational journals, such as the *Academy of Management Journal*, *Organization Science* and *Administrative Science Quarterly*. This means that it does not receive the same level of attention from the organizational behavior and organizational theory community as does work from other fields. Meanwhile, although this is a broad-brush assessment, much career-related research that has been published in these journals does not reference authors who are members of the careers community. Nor does the careers community reciprocate, although again, this is a broad-brush assessment. As noted by Jones and Dunn (2007, p. 437), 'Careers scholars . . . are yet to claim their role as a conceptual bridge and intellectual anchor' to organization studies.

In addition, much careers research remains focused on the psychological and vocational education components of careers. Using the same data as above, in 1989, 39.5 percent of all articles with 'career' in the title were classified as being published in psychology or educational research journals. In 2013, that proportion did not change, with 39.6 percent of all careers articles published in the two categories. So the ratio of psychological research to research from other disciplines remains constant. This precipitates two kinds of problem. One concerns the overall balance of disciplinary contributions to careers research, as psychological views are so dominant. The other concerns the way careers research is viewed by outside scholars, who may well feel excluded from the conversation.

IN WHAT DIRECTION DID THE EDITORS GO?

In each of our own lives, careers remain a central interest. However, while we all study careers, our work reflects the limitations above. We have focused on very different aspects of the subject. Michael has focused on career opportunities extending beyond organizational boundaries: how they help us view careers that are emerging and changing and how individuals can successfully approach these opportunities with agency. Tim has focused on protean careers, examining how people can maintain work lives that allow them to develop themselves at the same time as they respond to the new, increasingly chaotic pressures imposed by work environments. Barbara has focused on how social contexts constrain and facilitate individual development: how career-related norms emerge and how individuals acquire the reference groups through which they gather information and construe career-related meaning. Writing this chapter gave us the opportunity to think back and share our mostly separate journeys, and to reflect on their meaning. It also provided an opportunity to consider the strengths and weaknesses of specialization and generalizability.

Michael's Journey

After completing the *Handbook of Career Theory* (1989) Michael conducted an international study of human resource management in small to medium enterprises (SMEs). In investigating work on Japan, he quickly realized that the Japanese managerial 'salaryman' stereotype, popularized in Western management thought, applied to only a small proportion of the population. The average employment period for the supposedly privileged Japanese male worker was, in fact, only eight years. Similar or lower average employment rates applied in other countries. Large organizations commanded a limited and declining proportion of overall employment. What did this mean for assumptions about careers?

He went back to the *Handbook of Career Theory* (Arthur et al., 1989) and found inspiration in two chapters that spoke to the above question. In one, Gene Dalton spoke persuasively about organizations being dangerous, and particularly so when 'we expect things from [them] that they cannot deliver.' He went on:

> Organizations are dangerous because too often we have organized the jobs in them according to old models of efficiency without taking into account human needs. They are dangerous when we allow ourselves to think that some specialized knowledge or past achievement will make us secure; technology and organizational needs shift so rapidly that it is only our ability to learn and adapt that prepares us for the future (Dalton, 1989, p. 107).

In another chapter, Karl Weick and Lisa Berlinger examined the prospects for careers in 'self-designing' – that is, highly innovative – organizations. They concluded:

> To prepare oneself for a lifetime of learning and exploration is to become attached to processes rather than structures. Processes are harder to grasp, harder to count, harder to ascend, harder to change and harder to accumulate. Since careers are so often defined as tangible possessions and accomplishments, a shift toward self-designing careers is neither easy nor are there many models for how to do it (Weick and Berlinger, 1989, p. 326).

Thus, early on, Michael was concerned about how individuals could maintain sustainable careers in this dangerous environment. He and his colleague Robert DeFillippi were already thinking about how a stronger focus on interpersonal networking might further our understanding of careers when the theme for the 1993 Academy of Management meeting was announced: 'The Boundaryless Organization', a term popularized by Jack Welch, at that time CEO of General Electric. The two colleagues saw an opportunity and convened a small group to hold a symposium on 'boundaryless careers'. Extending the definition of career cited above, they defined boundaryless careers as 'sequences of work opportunities that go beyond the boundaries of any single organization.' (DeFillippi and Arthur, 1994, p. 307). However, they left room for other contributors to bring their own definitions.

Robert and Michael's own contribution to the symposium was to develop a view of career development based on three 'ways of knowing' (DeFillippi and Arthur, 1994) that later became known as the Intelligent Career Framework (Arthur et al., 1995). Robert led the way in developing the framework and in applying it to our understanding of project-based organizing (DeFillippi and Arthur, 1998; DeFillippi et al., 2006). Michael maintained a career perspective and developed the Intelligent Career Card Sort career

exploration exercise with Polly Parker (Parker and Arthur, 2000) and joined a project to study patterns of new careers in a stratified sample of New Zealand workers (Arthur et al., 1999).

Michael then became interested in the interdependence between the subjective and objective sides of the career (Arthur et al., 2005), envisioning 'new directions' for bound-aryless careers research (Tams and Arthur, 2010) and in arguing the advantages of an interdisciplinary approach to careers (Arthur, 2008; Khapova and Arthur, 2011). Most recently (Arthur, 2014), he has tied the strength of an interdisciplinary approach back to earlier work on careers at MIT in the 1970s, work that had a profound influence on the *Handbook of Career Theory*. He remains committed to overlapping agendas of helping people claim greater ownership of their (sustainable) careers, and promoting an inter-disciplinary approach across both authorship and review phases of journal publishing.

Tim's Journey

Tim's work since the *Handbook of Career Theory* (Arthur et al., 1989) unfolded during the end of an era of downsizing and slow growth. In work organizations, delayering, successive bouts of Total Quality Management (TQM) and a focus on efficiency resulted in career plateauing for many employees. At the same time, the baby boom generation in the United States, born between 1946 and 1964, was entering midlife and mid-career. This entitled generation was expecting to experience both objective and psychologi-cal success in their careers. Unfortunately, they reached this career stage at exactly the wrong time. It was not a good time for career development as the standard career model was no longer sustainable (Hall, 1996).

Tim's concern was that if people cannot experience sustainable careers in the old ways, what new ways would facilitate these opportunities? Thus, he focused on alternatives to promotion as strategies for career growth. He had already edited a book in 1986 called *Career Development in Organizations* (Hall, 1986a), which explored the state-of-the-art of organizational career development programs. This book was part of the Society for Industrial and Organizational Psychology's (SIOP) 'New Frontiers' series and it was the top-selling volume in the series at the time, reflecting interest in the topic. In retrospect, though, that time was the beginning of the end of traditional career programs based upon advancement and the single-organization career.

Tim then turned to the many middle-career issues that resulted from the baby boom's demographic effects on careers. He had written a chapter on identity change and mid-career development (Hall, 1986b) that presented a recursive model showing how people develop routines in the early part of their careers that tend to create momentum and resistance to change. However, under certain conditions a person might experience a trigger event that precipitates the beginning of movement. The person might experiment with some new behavior, and it might be satisfying, leading to increased satisfaction, self-esteem and work involvement. These positive outcomes could feed back and positively affect the person's career goals, which in turn might produce more significant career and identity change. This theoretical model has not been tested, but Tim and his colleagues are planning studies on the topic.

In the 1990s Tim's work focused on leaders' careers, examining leadership succession, leader development, and organizational leadership programs. Most leadership writing

does not consider leaders' personal development: they are a disadvantaged group in that sense. So he applied career theory to this group. The 'old contract' still applies to them.

Here in the 2000s, people seem to have lost sight of the whole person in organizational life. As a result, Tim has turned his thinking to the subjective career, work–life balance and pursuing individual career aspirations. He explored these ideas in his book, *Careers In and Out of Organizations* (Hall, 2002) and is currently delving deeper into issues of personal meaning, authenticity and identity. He is also exploring the role of national context, for example with the 5C project, which is examining universal and country-specific factors, identifying global variations in the meaning of career and career success (Briscoe et al., 2012).

There are several recurring themes in Tim's work. The first is defining careers as a series of work-related experiences over the span of the person's life, which entails continuous learning and evolution. The second is examining the meta-competencies that keep the person learning and maintain his or her employability, identity and adaptability. The third is maintaining a focus on career development and success as activities that require joint pursuit by individuals and organizations. His attention to the current career issues facing individuals runs through all of these. He feels that at this point in the evolution of careers research we need more context-specific studies of careers; for example, more studies of specific occupations and types of work. We need to revisit the Chicago School and researchers such as Hughes, Becker and Strauss.

Barbara's Journey

Barbara's perspective on sustainable careers has always focused on how social and demographic structures influence career outcomes (Lawrence and Tolbert, 2007). These structures create boundaries that circumscribe the information individuals acquire and how they use it to interpret their careers. Interviewees kept telling her they made career decisions because '*they*', some abstractly defined category of others, would approve or disapprove of their choices (Lawrence, 2011). *They* was apparently a significant reference group: the ground from which people created what became figural at work. It created well-recognized opportunities but also insidious, unseen limitations. Perceptions of these referents were exerting significant impact on individuals' career outcomes (Lawrence, 2006).

Because this territory falls between the typical boundaries of individuals and organizations, capturing it involved seemingly unrelated work on age norms, career and organizational timetables, organizational demography, organizational fault lines and organizational reference groups. Integrating interview, survey and demographic data facilitated comparisons between individuals' perceptions and organizational reality. To what extent were individuals' perceptions accurate? A key difference between this work and other approaches is that the latter tend to examine what is common among individuals' career interpretations. For instance, Duberly et al. (2006) identify four career scripts that scientists draw on to account for career-related behaviors: organizational careerist, impassioned scientist, strategic opportunist and balance seeker. Instead, Barbara asks why many individuals who observe such scripts see them so differently.

Initially, her work focused on career timetables (Lawrence, 1984; 1988; 1990). People classified themselves as ahead-of-schedule, on-schedule or behind-schedule in their

careers. It became clear that they created such norms even when, in reality, there were none. For instance, people in one organization observed that mid-level careers followed an age progression, with lower levels having younger managers than higher levels, even when actual organizational data showed no age differences (Lawrence, 1990). Yet these perceptions seemed to influence career satisfaction and performance.

The next question was, if perceptual differences exist and if they influence career outcomes, where do they come from? Some differences could be explained by individuals' demographic attributes, such as age and education, but the explained variation was not high. To explore this further, Barbara interviewed people in a wide variety of careers about how they evaluated their own careers. Some were engineers, physicians and lawyers in small and large organizations. Others worked in self-created jobs, such as putting together an independent movie production or developing, producing and selling skate boards through sponsorship in big tournaments. Consistently and independent of the kind of work they were involved in, people said they evaluated themselves by comparison with an abstract group of specific and also undefined others.

To better understand 'who is *they*?' Barbara conducted an ego-network study in a large organization. Her data included subjects' lists of the people each knew, reference groups averaging 50 names per subject. As expected, the composition of these groups was strongly related to subjects' demographic attributes. However, demographics consistently explained less variation in the attributes of subjects' close associations, people they worked with regularly, than distant associations, people with whom they worked infrequently or not at all. For instance, subjects' demographic attributes predicted 37 percent of the variation in the average age of their close associations, but 61 percent of the variation in their distant ones. Moreover, the composition of subjects' distant associations consistently explained more variation in their career outcomes, such as expected achievement, than their close associations. This, and her work on how these reference groups cluster (Lawrence and Zyphur, 2011), suggests that *they*, those referents out there that people perceive but don't work with, contribute significantly to the way people view their own careers.

Recently, she has started a study of geoscientists to examine the same phenomena in an open social context, in the sense that subjects work in different geoscience disciplines and at different institutions rather than in one common organization. Here the question is where scientists get the information that allows them to find collaborators from other disciplines.

The topic of sustainable careers emphasizes the intersection between individuals and their work environments. Moreover, it assumes that what goes on within this intersection is generalizable. Yet, individuals often experience a common, shared environment quite differently. Thus, Barbara believes that further research requires understanding why this occurs. Her work on 'who is *they?*' provides one source of these variations. However, the dialectic between structure, norms and outcomes is complex (Lawrence and Tolbert, 2007). This means that human resource policies that provide sustainable careers for some people do not provide the same opportunity for others. We need to learn how to design work in ways that maximize such careers for everyone.

MOVING FORWARD: A SHARED FOCUS ON SUSTAINABLE CAREERS

Drawing together our separate journeys, we consider some of the common themes in our work since the publication of the *Handbook*. As we discuss these themes, we will keep in mind the elements of sustainable careers as outlined by Van der Heijden, De Vos and their colleagues (De Vos and De Prins, 2014; De Vos and Gielens, 2014; Van der Heijden and De Vos, 2015).

First, all individuals who work have careers, since the career is defined as the sequence of work-related experiences the person has over his or her work life (Arthur et al., 1989.) Thus, under the umbrella of 'career' we include all kinds of work and occupations, not just professionals.[9] The main issue, however, is not whether someone has a career or not, but rather what these careers will look like in the future, both to individuals and to institutions, given the many changes likely to unfold. How will people manage their careers and how will employers attempt to manage their employees' careers? Will employers see their employees as talents, as in interchangeable parts, or as unique individuals with full lives and complex potential to be developed, as well as a need for work to have meaning and purpose? It is this latter emotional and motivational aspect of work that provides sustainable personal commitment not only to excellent performance but also to ongoing growth and learning. This issue of career growth and the maintenance of commitment and purpose represents a major element of a career's sustainability.

A clear theme in our work since the *Handbook* is how individuals think about their careers in relation to the rest of their lives, how they learn and adapt and how much influence they exert over their careers relative to the influence of other actors and factors in the environment, such as reference groups. And, as De Vos and Gielens (2014) show, the issues of growth, without 'overambitious challenge' and life balance are also key in heading off burnout and alienation in the career.

It is also clear that people need education to support these sustainability factors. First, and most obviously, they need to learn the key knowledge, skills and abilities that prepare them for the present and future. Second, more than ever before, they need to understand their own strengths and weaknesses and how to use these to negotiate an increasingly chaotic work environment. Moreover, people need to develop the meta-competencies to empower them to be continuous learners: self-awareness and adaptability. They need to be able to recognize skill deficiencies on their own, before these gaps become problems, and they need to be able to self-correct and develop new skills and capabilities just in the course of their everyday work activities.

One important way that employers can facilitate the development of these career-sustaining qualities is through the conscious creation of work roles that represent *smart jobs* (Hall and Las Heras, 2010). Smart jobs are ones that *require* the development and exercise of the elements of employability simply in the successful performance of the job. If we think of the key elements of employability as self-awareness, adaptability and social capital (Fugate et al., 2004), this suggests that a smart job would be designed so that the person had to constantly be receiving feedback, from self and others, constantly reaching out to new people, such as customers, suppliers, teachers/coaches, superiors and subordinates and constantly finding new methods and strategies for doing the job. The *hoshin* method (Liker, 2004) for quality improvement and continuous learning is a

long-standing example of a process for imbuing smart elements into people's jobs. More recent approaches focus more directly on the opportunities leaders have to promote smart jobs for subordinates (Dutton and Spreitzer, 2014) and teams (Ancona and Bresman, 2007; Edmondson, 2012).

At the same time, almost everyone wants some stability in their lives. Young people who don't have families often test the waters by moving from one job to another. But that doesn't last when they get tired of moving, start families, want benefits, predictable retirements and sufficient stability to do meaningful work that requires long-term commitment. Thus, despite the increased omnipresence of boundaryless careers that is required by today's labor markets, workers with families, relatives, or other attachments to a particular geographic location will continue to demand stable, meaningful careers. Some of this mobility may be gained by changing jobs but staying in the same family home, or in certain cases by telecommuting. However, a relatively high demand for work that lends itself to job crafting (for example, Tims et al., 2013; Wrzesniewski and Dutton, 2001), local work opportunities and social opportunities, will persist.

Nevertheless, people have to deal with constant change and live through intermingled stages of learning, development and stability. Learning by definition involves change, losing competence in certain areas and growing competence in new areas. It also means feeling less successful in one's work during a growth cycle. Paradoxically, one has to learn to feel comfortable being uncomfortable, in trading off stability and possible decline for instability and potential future growth. Just as physical stretching can be good for sustaining the body, employability stretching is good for careers.

One other stretching activity that individuals need to learn is how to gauge work environments more accurately. People learn how and what work is valued by observing others: their organizations, family and society at large. When they see only a small portion of these environments, their self-perceptions and beliefs about future possibilities are similarly limited. An individual growing up in a rural community where no one goes to college frequently finds it difficult to imagine that there are more possibilities for his or her life. It is difficult to see beyond these taken-for-granted norms and we need to learn more about what generates them and how to design organizations in ways that facilitate achievable imagining.

CONCLUSION

The philosophy of sustainable careers has been implicit in much research since the Human Relations movement in the 1930s and in most of our own work since 1989. It seems unlikely that any person or corporate executive would disagree that sustainable careers are good for workers as well as organizations. The definition including workability and employability is a win–win. However, these attributes raise several questions about how we explore the subject. Sustainable careers represent an 'ideal type'. We may never be able to pin down what is or is not a sustainable career. Rather, we may need to identify more and less sustainable careers.

As in all career research, sustainable careers involve a time element. If we ask people whether their job is sustainable, their answer is likely to include their assessment of their career-to-date and their psychological contract with those responsible for the future.

They may also tell us that some portions of their careers were more sustainable than others. We've mentioned that different age groups have different career requirements. In addition, periods of discomfort from career learning and stretching may also be accompanied by the fear and stress induced by not knowing whether they will thrive in the future. These transitions, if successful, can easily be integrated into successful sustainable career stories. If they are not successful, then in addition to producing an unsustainable career situation, they are likely to create doubt in individuals' minds that continuous learning and stretching represent positive life developments.

Another topic that requires more attention is the social contexts within which careers are experienced, such as organizations, occupational communities, national cultures and industry regions. We noted earlier that careers research sports a rich history in psychology. Indeed much of our focus in this chapter has been about individuals: their agency in career decisions, the broadening opportunities available, the contradictions inherent in subjective and objective success and the meaning work holds at different times of life. However, in order for careers to be sustainable, they need to meet employers' needs as well as those of employees. Maintaining human resource policies that support sustainable careers is expensive and if an organization doesn't thrive, neither do sustainable careers.

There is also the question of who decides whether careers are sustainable when assessing how individuals' needs fit organizational needs. It's relatively easy to ask individuals whether they see themselves as experiencing a sustainable career. It's also easy to ask executives whether they think their organization is providing sustainable careers. However, it is similarly easy to imagine that employees and executives do not see sustainable careers similarly. Many executives have little idea of how their employees experience work and prefer to believe rather than find out whether their organization supports sustainable careers and if it does, for whom.

In one organization studied by one of the authors, executives were puzzled and upset by the high turnover of their engineers. The executives were quite satisfied with their own careers and projected these experiences to those of their engineers. When asked, the engineers were leaving because they had been hired for their state-of-the-art skills, yet the company's products required only old technology. The company was hiring engineers for whom it could not provide a sustainable career. Certainly there is no organization in which all employees' needs for sustainability fit precisely with the organization's requirements for performance.

In conclusion, we offer a few thoughts on the four elements behind the definition of sustainable careers introduced by the editors of this volume. Regarding *time*, as career scripts become less clear they need more attention, which requires moving away from cross-sectional research designs. Regarding *social space*, expecting workers to move into new situations prompts us to consider their attendant risks. Turning to *agency*, we need to move from static to more dynamic models of careers that accommodate the emergent notion of adult identity development. This connects to *meaning*, which also calls for a more developmental view of people's career situations. All of these thoughts are more easily said than accomplished. Let us feel good about all the progress that's been made, as we realize there is much that still needs to be done!

NOTES

1. The authors would like to thank Ans De Vos and Beatrice Van der Heijden for their support and patience while writing this chapter. We also thank Lan Wang for her assistance in gathering and analyzing the bibliographic data and the Friedman Research Fund at Boston University for technical support.
2. Employability has also been defined as an individual-level construct (Fugate et al., 2004, p. 15). We prefer a work environment-level definition because employability then balances the individual-level focus of work-ability. Sustainability involves the tension between individuals and work environments, and workability and employability thus cover this basic territory.
3. We use the term 'organization' as a short-hand for the diverse social contexts in which people work, recognizing that many careers fall across or outside typical organizational boundaries. For instance, politicians operate in multiple, overlapping social contexts, their local communities, the regions they represent, and the governmental agencies they work for. This social context differs dramatically from that experienced by an employee who works in a single organization.
4. We use the term 'self-actualization' as originally posited by Maslow (1943): 'Even if all these needs are satisfied, we may still often (if not always) expect that a new discontent and restlessness will soon develop, unless the individual is doing what he is fitted for. A musician must make music, an artist must paint, a poet must write if he is to be ultimately happy. What a man *can* be, he *must* be.' (p. 382).
5. See Howard and Bray's book (1988) for detail on the many follow-ups conducted on the original assessment group and a second cohort selected in the 1970s and early 1980s.
6. We acknowledge that this is a distinctly US perspective, representing what the authors know best. We do not claim that the same patterns prevailed elsewhere. However, as we observe later, it is interesting that a more global research agenda has developed in the recent past.
7. We thank Lan Wang at Boston University for the data presented here, which were obtained from the Web of Science.
8. These data have many limitations. For instance, many of these articles examine a specific individual's career or provide career advice for those pursuing a career rather than providing research on careers per se. Moreover, the Web of Science is not a complete archive of academic articles.
9. Perhaps some element of confusion here may derive that in some languages the word for occupation is sometimes translated as 'profession'. An example here would be *Beruf* in German, which many English speakers translate as 'occupation', while some German speakers translate it as 'profession'.

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