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Abstract

At the time of writing, the health crisis of Covid-19 is dramatically impacting societies around the world and has triggered one of the greatest economic crises since the great depression as a result of social and economic measures implemented by governments around the world to prevent the collapse of health systems (OECD, 2020a, b). In the context of Covid-19 and the personal and systemic challenges it has wrought around the world, it is timely to consider the possible relationship between the Covid-19 ‘recovery’ and career development, specifically the Systems theory Framework of career development. Career development interventions have the potential to assist people plan futures. However, at a time of massive upheaval of labour markets, high rates of unemployment, and the unequal experience of Covid-19 by workers, questions could be asked about whether career development interventions as we know them will be adequate. This article considers the challenges of career development in the Covid-19 world through the lens of the metatheoretical Systems Theory Framework and its applications of systems thinking and systems mapping.

Keywords: career development; Systems Theory Framework; systems thinking; systems mapping; Covid-19

Introduction

At the time of writing, the health crisis of Covid-19 is dramatically impacting societies around the world and has triggered one of the greatest economic crises since the great depression as a result of social and economic measures implemented by governments around the world to prevent the collapse of health systems (OECD, 2020a, b). This global event “has rapidly transformed into economic and labour market shocks that have, in turn, led to a global job crisis with unprecedented magnitude” (Lee et al., 2020, p. S11). In the context of the Asia-Pacific region, improvements achieved over previous decades in relation to gender equality, working poverty, child labour, and labour rights are expected to be lost (International Labour Organization, 2020a).

In the context of the Covid-19 crisis and the personal and systemic challenges it has wrought around the world and the hope invested in recent vaccine advances, it is timely to consider the possible relationship between the Covid-19 ‘recovery’ and career development, specifically the Systems Theory Framework of career development (McMahon & Patton 1995; Patton & McMahon, 1999, 2006, 2014). Career development interventions have the potential to assist people plan futures.

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However, at a time of massive upheaval of labour markets, high rates of unemployment, and the unequal experience of Covid-19 by workers, questions could be asked about whether career development interventions as we know them will be adequate. This article considers the challenges of career development in the Covid-19 world through the lens of the metatheoretical Systems Theory Framework and its applications of systems thinking and systems mapping. Suggestions for practitioners are offered.

The Systems Theory Framework of Career Development

After almost a 100 year history of career development theory, practice, and research, news of difference was introduced into the field in the mid-1990s in the form of the metatheoretical Systems Theory Framework of career development (STF; McMahon & Patton, 1995). A starting point for describing the STF is to consider the question 'what influences the career decisions and transitions of individuals'? In considering this question at the inception of the STF’s theoretical journey as a contextual model of adolescent career decision making, McMahon (1992) identified a broad range of proximal and distal influences that could impact career decisions and transitions either directly or indirectly and concluded that career decision making should be considered “in terms of time and context” (p. 15).

Subsequently, the model was refined and published as the Systems Theory Framework of career development (McMahon & Patton, 1995; Patton & McMahon, 1999, 2006, 2014). Thus, from its inception, the STF emphasised context as central to career decision making and transition and in its diagrammatic depiction (see Figure 1) clearly makes the point that “context matters” (Sultana, 2020, p. 2) in keeping with its systems theory foundation. To understand the STF, it is necessary to understand that a system is basically "a set of things … interconnected in such a way that they produce their own pattern of behavior over time" (Wright & Meadows, 2009, p. 2). Systems exist all around us in the form of education systems, transport systems, and computer systems. Even the human body is a system. Systems may be closed to or open to influence from outside the system. The human body is an open system subject to the external influence of Covid-19 which brings about changes to the body’s functioning, sometimes fatally. The Systems Theory Framework is an open system because it may receive input from the outside world and also provide output to the outside world.

While the STF may at first seem complex, consistent with its systems theory origins, the whole system can be broken down into its component parts, specifically, the individual system, the social system and the environmental-societal system all set within the context of past, present, and future time (see Figure 1). Similarly, each of these systems can be broken down into component parts that are the content influences of career development. The individual system comprises intrapersonal content influences including gender, age, self-concept, health, ability, disability, physical attributes, beliefs, personality, interests, values, aptitudes, skills, world-of-work knowledge, sexual orientation, and ethnicity. The social system comprises content influences including peers, family, media (including social and digital media), community groups, workplace, and education institutions. The environmental-societal system comprises content influences including political decisions, historical trends, globalisation, socioeconomic status, employment market, and geographical location. The STF recognises the uniqueness of individuals; thus, for each individual, the nature of the content influences may differ (e.g., everyone has a personality, a family, and a set of socio-economic circumstances but each person has different personalities, different family compositions, and different socio-economic circumstances). The individual, social and environmental-societal systems and their component influences are not static or isolated. They change over time and interact to varying
degrees with other influences and systems, sometimes directly and sometimes indirectly, and sometimes suddenly and unexpectedly by chance. The processes of interaction within and between systems and influences is termed recursiveness, a term derived from systems theory. Thus, the three process influences of the STF are recursiveness, change over time, and chance. Chance has been little attended to in career theory and at the time of writing, countries around the world have been seriously impacted by the chance event of the Covid-19 pandemic. As with any system, a whole is made up of parts and parts make up a whole; they are inseparable. Also, as with any system, things do not remain the same forever; thus, from a systems perspective, it is “essential to think of content and process as a dynamic, integrated package” (Vondracek et al., 2014, p. 15). Covid-19 has had an influence on all parts of the system.

The STF is not a theory of career development although it has sometimes been described as such; rather, it is a metatheory and as such serves a different purpose. Unlike a theory, a metatheory does not provide detailed explanations of particular phenomena and can sometimes be considered general, vague, and abstract (Fuhrman & Snizek, 1990). Rather, a metatheory provides a means of investigating and analysing theories and can be described as “a theory concerned with the investigation, analysis, or description of theory itself” (Merriam-Webster, 2020). Metatheory encourages critical thought about extant theories that guide research and researchers (Paterson et al., 2011) and practice in a particular field of study. As reflected in the STF, career development is complex; career theories offer indepth explanations about specific elements of career development. As a metatheory, the STF takes a pluralistic and holistic view of career theories which better
reflects reality (Fuhrman & Snizek, 1990) because complex phenomena and their component parts may be best accounted for by many theories that focus on specific aspects of the phenomena.

Metatheories can provide useful models and also tools for macro- and micro-level analysis (Ritzer, 1990) of a field. As a metatheory, the tools the STF offers the field of career development are systems thinking and systems mapping. Systems thinking is a way of thinking “that keeps people in touch with the wholeness of our existence” (Flood, 2010, p. 282); systems thinking keeps us in touch with the context in which we exist. In career development, systems thinking means taking a wide range of contextual influences into consideration. Being able to “see the system” is important to systems thinking (Stanton & Welsh, 2012, p. 15) and systems maps (e.g., the STF), enable the elements of a system to be identified and ‘seen’ and the relationships and interconnectedness between them considered. Systems maps are rich, holistic diagrams which identify the component parts of particular phenomena (Checkland & Scholes, 1990; Király et al., 2016). For example, a public transport map (e.g., of the London underground or the Delhi Metro) is a systems map. The STF is a systems map of influences on the career development of an individual person.

The STF has been described as a “conceptual and practical map” (McMahon & Patton, 2017, p. 113) that can guide practice. For example, at the micro-level, the STF can be personalised by individuals who draw their own systems map of their career influences in activities such as career counselling or career education. At the macro-level, the STF, through its tools of systems thinking and systems mapping, has been used as an analytical tool to analyse career theory, career counselling, career education in school systems (Patton & McMahon, 2014), career research (McMahon & Watson, 2007) and supervisory systems (see Patton & McMahon, submitted).

The STF has also been used as a lens to consider work and why we do it; “A systemic view of work and why we do it enables us to think beyond narrow and overly simplistic models and theories” (McMahon, 2017, p. 14) that guide career development practice and research. Work does not appear as such in the STF map because of its recursiveness with and between multiple influences. However, work “in all of its forms is an inherently systemic endeavour” (McMahon, 2017, p. 9) deeply embedded in the lives of individuals (Richardson, 1993, 2012) and at the interface between individuals, social systems and environmental-societal systems (McMahon, 2017). Work occurs in cultural contexts that may influence why individuals work and the meaning they ascribe to it (Stead & Bakker, 2012; Triandis, 2002).

Reflecting the STF’s core constructs of connectedness, wholeness and the interaction within and between parts of the whole (Patton & McMahon, 2014), work is more than just “a job to be done or a livelihood to be earned” (Arulmani, 2011, p. 83) because it influences our identity, our lives, our families, our relationships beyond our family, our values, and our societal status (Hulin, 2002). At the level of the individual system, work influences our stress levels, our health and mental health (McMahon, 2017) and contributes to autonomy, skill development, purpose in life, self-worth, self-esteem, income and security (Hulin, 2002, pp. 4-5); “Not working may result in social isolation, challenging socioeconomic circumstances, and vulnerability” (McMahon, 2017, p. 11). At the level of the social system, work helps us to make friends, contribute to our communities, help people, and support our families.

At the level of the environmental-societal system, work can be influenced by political decisions, socioeconomic status, globalisation, the labour market, historical trends and geographic location, all of which have a recursive impact on social systems and individual systems. Since late 2019, people, work and labour markets around the world have been profoundly impacted...
by the chance influence of Covid-19; Covid-19 has impacted all systems and influences of the STF.

**Covid-19 as a Chance Career Influence**

As a result of the social and economic measures imposed by governments around the world to manage the Covid-19 pandemic and to prevent health systems being overwhelmed, millions of businesses and industries have been disrupted, workplaces closed down, and workers around the world have experienced under and unemployment. The scale of the labour market disruption has been unprecedented and has impacted most people and most countries; the Covid-19 crisis has “exposed the wobbly foundations of decent work and inclusive growth in many Asian-Pacific economies” (International Labour Organization, 2020a, p. xi). In the Asia-Pacific region, it is estimated that 80 million jobs have been lost and that between 22 and 25 million people will be pushed into extreme poverty (International Labour Organization, 2020a). Not surprisingly, the effects of the pandemic have impacted already vulnerable people more harshly (International Labour Organization, 2020a); “the burden of the pandemic has been shouldered disproportionately by the most vulnerable” (OECD, 2020b, p. 5).

Considering the impact of the Covid-19 pandemic on people and countries around the world reveals a recursive interaction between influences at all levels of the system. Individuals, families, communities, education systems, health systems, transport systems, workplaces, industries, policy makers and governments have all been impacted by the global pandemic.

Despite claims by some that ‘we are all in this together’, “the impacts have been disproportionate” (Lee et al., 2020, p. S12); informal workers, youth and women have been impacted to a greater extent than other workers resulting in greater vulnerability (International Labour Organization, 2020b; Lee et al., 2020). Migrants and older people have also been disproportionately impacted (International Labour Organization, 2020b). For example, approximately 62% of the global workforce make a living in the informal economy, and the impact of the pandemic is predicted to see their income drop by 60% globally and 80% in Africa and the Americas and poverty in this group will inevitably rise, again unequally across countries and workers (Lee et al., 2020). Prior to the pandemic, youth experienced higher unemployment than other workers and many were employed in the informal economy (International Labour Organization, 2020b; Lee et al., 2020). As a result of the pandemic, for youth, the quality of employment opportunities has deteriorated, entry to the labour market is more difficult, and education and training has been disrupted (Lee et al., 2020). Exacerbating labour market inequalities already experienced by women such as labour market participation, work quality, and income, the pandemic has impacted female dominated sectors more than some other sectors. In addition, women constitute a higher proportion of frontline workers in health and social work, which tend to be lower skilled and lower-paid jobs (Lee et al., 2020). A feature of the pandemic has been a greater rise in inactivity than unemployment in most countries, a feature which will be harder to address than finding jobs for unemployed people (International Labour Organization, 2020b). Younger and older workers have a higher risk of becoming inactive and may face long-term labour market disadvantages (International Labour Organization, 2020b). In view of the impact of Covid-19 on economies around the world, governments have initiated stimulus packages to limit the economic damage to businesses and industries. Again, these packages have not been equal with the packages offered in low-income countries being significantly less than those offered in high-income countries (International Labour Organization, 2020b). Even within countries, these packages have not been equally available to people and businesses in need.
Covid-19, Career Development, the STF, Systems Thinking, and Systems Mapping

Many in the field of career development have begun to envision its potential directions in relation to Covid-19 and its possible contribution to the Covid-19 recovery. For example, a special issue of the Journal of Vocational Behavior (Fouad, 2020b) featured a series of essays that considered “the implications of COVID-19 on work and/or workers with an emphasis on research in the area” (Fouad, 2020a, p. 2). In this special issue, Akkermans et al. (2020) described Covid-19 as a “career shock that will have a major impact on people’s work and careers” (p. 4). Reflecting the systemic nature of the impact of Covid-19, these authors emphasised the dynamic interplay between individual and contextual factors that will differ for people depending on their life and career stages and that short- and long-term consequences will be experienced, some of which could be positive. How people cope and respond to Covid-19 could be influenced by their multiple cultural identities and also the national cultures of countries (Guan et al., 2020), all of which warrant consideration if career development is going to contribute to the Covid-19 recovery.

The systemic nature of the Covid-19 pandemic has been evident since its emergence. Covid-19 is a chance influence that has impacted the open systems of individuals, families, businesses, industries, economies, societies and governments at global, national, local, and personal levels and changed the patterns of behaviour of these systems. Covid-19 is a systems problem that requires a systems response. Indeed, the response to date has provided examples of systems in operation as governments, medical professionals, business leaders, union leaders, education systems, industries, families, and individuals collaborate and change behaviour to find solutions to the challenges of the pandemic at local, national and international levels. The pandemic is a systems problem and systems problems (e.g., unemployment) require systems responses and solutions (Wright & Meadows, 2009). For example, the challenge of finding a vaccine for Covid-19 has been a systems response with researchers from different organisations and countries collaborating, governments investing in the research, people in many countries trialling the vaccines, and a global commitment to make the vaccines available to all countries.

Against the backdrop of the Covid-19 pandemic and recovery from it, career development could have a role to play. However, the pandemic is a systems problem and to date, career development has focused primarily on interventions with individuals rather than systems interventions. Moreover, career development’s theories and interventions may not readily translate to all people; career theories have been constructed in western middle class contexts and “reflect the times in which they were constructed” (M. Watson & Stead, 2017, p. 22). Consequently, career theory has long been criticised as “being both culturally bound and contextually blind” (Watson, 2013, p. 4) and has seen little refinement that is reflective of present realities.

Theory informs practice and thus, career practice has been subject to similar critiques. Ronald Sultana (2020) claims that the “Euro-American” master narratives “underpin what we understand by career guidance, providing its core assumptions as well as shaping its interactions with society” (p. 2). For example, emanating from a master narrative steeped in the traditions of differential psychology, career counselling practice has been heavily focused on career assessment in an expert driven process. Even at the fundamental level of terminology, the word ‘career’ does not resonate with millions of people around the world (e. g., workers in the informal economy) for whom day to day survival is a pressing issue and livelihood may more appropriately reflect their situation (Aruulmani, 2014). Even recent practices such as narrative career counselling, have drawn criticism, and concerns have been expressed about whether it is possible to
"narrativise oneself out of structurally imposed constraints such as poverty, lack of opportunity, systemically induced inequality and such like" (Hooley et al., 2018, p. 22). To date, career development has privileged western knowledge. However, many 'knowledges' exist, even within one country, and the career development response may require local knowledges and voices to be tapped so that context and culture appropriate interventions may be developed (Sultana, 2020).

In terms of career development, given the personalised and localised impacts of Covid-19, traditional approaches such as career assessment based and narrative approaches may not be adequate. Local responses may be required; local responses “are more likely to be relevant and useful in response to the specificity of context” (Sultana, 2020, p. 1). The needs of local contexts need to be prioritised, and knowledges that are context-sensitive and context-resonant generated to inform career development responses to the labour market challenges wrought by Covid-19. This suggests multi-pronged approaches may be needed and that a one-size fits all approach may not be appropriate in all local contexts.

Systems thinking may be useful in conceptualising local responses because it offers ways of understanding complexity, clarifies patterns of interconnections, and helps identify how change may be facilitated effectively (Senge, 1990). Systems interventions are participatory and may involve career practitioners and other key stakeholders such as family members, community members, or members of organisations or industries. Based on systems thinking, soft systems research methods are well positioned to respond to problem situations in an organised way to bring about action and improvement (Checkland & Poulter, 2010, p. 192); soft systems methodologies may be viewed as learning cycles that stimulate activity (Checkland & Poulter, 2006) by observing, reflecting, planning and acting (Hammond, 2017). For example, participatory action research involves key stakeholders in analysing and developing potential solutions to a problem. The Systems Theory Framework provides an example of the complex range of influences that could be considered in order for 'localised' and 'personalised' maps of problem situations to be drawn. Systems maps may be used to build rich pictures or models of problematical situations that take into account the differing views of relevant stakeholders and could be incorporated into participatory processes. Thus the STF through its systems tools, systems thinking and systems mapping, may suggest an approach that privileges local knowledge and local voices in creating innovative responses to the challenges of the Covid-19 pandemic that are context and culture appropriate.

**Conclusion**

In the face of profound challenges to workers in countries around the world, career development may have the potential to contribute to the recovery. However, the traditional middle-class focus of career development, its constructs and its practices may limit its impact with the diversity of people struggling to cope with the challenges of the pandemic. From the perspective of the STF, systems thinking and systems mapping may provide ways of engaging with relevant stakeholders at local levels to focus on local issues in order to generate local solutions to the labour market challenges of the Covid-19 pandemic.

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**About the author**

*Dr Mary McMahon* is an Honorary Associate Professor in the School of Education at The University of Queensland, Australia. Her work focuses on applications of the Systems Theory Framework of career development. Mary received the European Society for Vocational Designing and Career Counselling 2020 Award for Distinguished Contribution to Vocational Designing and Career Counselling.
References


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