NIMROD LEVIN AND ITAMAR GATI

10. IMAGINED AND UNCONSCIOUS CAREER BARRIERS

A Challenge for Career Decision Making in the 21st Century

INTRODUCTION

The issue of social justice has been at the background of career counselling in both theory and practice from the early days of our profession (for reviews, see Fouad, Gerstein, & Toporek, 2006; Hartung & Blustein, 2002; O'Brien, 2001; Pope, Briddick, & Wilson, 2013; Savickas, 2009). As it is commonly understood, social justice refers to the distribution of advantages and disadvantages among individuals within societies. In the world of work, with the establishment of the modern labour market – in which one's work plays an increasing role in determining one's social status and the accumulation of property rather than one's genealogy (but see Piketty, 2014) – vocational development has gradually emerged as a new venue for greater social mobility (Madsen, 1986; Watts, 1996). Indeed, national labour markets, and more than ever the contemporary global labour market (Friedman, 2006; Hardt & Negri, 2000), have made it possible for more individuals to determine their course of life autonomously.

It would not be a stretch to claim that the issue of social justice was generally discussed in the 20th century, both by career counsellors and in general, with the intention of promoting equal opportunities for individuals from different groups (e.g., racial and ethnic minorities, women, members of the LGBT community, or people from lower socioeconomic backgrounds; Blustein, McWhirter, & Perry, 2005; Constantine, Hage, Kindaichi, & Bryant, 2007; O'Brien, 2001). In this respect, a comparison of the present state of affairs to the past demonstrates that significant progress has been made toward social equality among different groups.

Nevertheless, a great deal of public pessimism is still apparent in debates over how successful such attempts have been in promoting real, sustainable social justice (Blustein, 2008; Heppner & Jung, 2013). Indeed, demonstrating the continuing discontent with the current state of affairs in career counselling, the International Association for Educational and Vocational Guidance (IAEVG, 2013) issued a press release reminding scholars and practitioners to embrace social justice as a core value guiding their work. In their statement, the IAEVG noted that, despite previous efforts to advance social equality, we have not yet managed to create "a democratic, participative and inclusive society in which all voices are heard" (p. 1). Adopting

a similar approach, Pope et al. (2013), in their review of the historical importance of social justice in the founding of the National Career Development Association (NCDA), noted that it "is still committed to its original goal of helping people from diverse backgrounds and over the life span find their vocation, their passion, their calling" (p. 372). Thus both the IAEVG and the NCDA have explicitly stated that career counsellors should promote social justice by encouraging clients to pursue their authentic career aspirations and helping them overcome the barriers they face in attempting to realize their dreams.

In reality, however, individuals frequently conceive and give voice to their dreams and aspirations in accordance with existing social dynamics and power relations among social groups. For example, as discussed in the following sections, women (like men) often make gender-biased choices in choosing a career. Given the differences between occupations that are considered feminine and masculine, this often results in women choosing occupations that are dominated by women and hence traditionally characterized by lower income. This bias poses a serious problem for promoting social justice, as individuals from underprivileged backgrounds are more likely to choose career paths that represent the internalization of social power dynamics. When this occurs, individuals from lower socioeconomic backgrounds hinder their own chances of social mobility. Thus, it is doubtful whether advantages could be redistributed among people by taking their individual voices as a valid starting point. We therefore propose that encouraging clients to actualize their vocational dreams does not necessarily promote social justice within societies, at least in those societies that have already reduced their structural inequality.

The present chapter tackles the issue of social justice from a viewpoint that focuses on the individual and his or her role in perpetuating social inequality. Such a focus involves adopting a critical standpoint, which considers the possibility that other modern values, such as autonomy or agency, could interfere with achieving social justice (Badiou, 2001; Taylor, 1989). We acknowledge that our suggestion differs from that of the mainstream, which typically focuses on the social setting. This being the case, we hope the present chapter will enrich debates on social justice in career counselling, as we believe that career counsellors have a significant impact on the lives of their clients and therefore can and should use their influence to attempt to minimize social inequality.

In the present chapter we focus specifically on the ways in which social power relations may explicitly or implicitly bias individuals' aspirations. Such biases may lead to procrastination in career decision-making or to making less than optimal career decisions. Consequently, we believe that such instances should be considered subtypes of career barriers. In particular, in addition to real, external career barriers (e.g., lack of funds, physical disability, geographical barriers), we suggest that some career barriers are rooted in individuals' beliefs. In these cases, they are either imagined (being rooted in self-perception) or unconscious (with their detrimental effects residing outside of the individual's awareness).

Accordingly, this chapter is divided into three sections. First, we outline the theoretical framework for our suggestions. Then, in the second and third sections, we discuss two types of barriers to individuals' career development that we believe are rooted in the ways individuals assess their own abilities and preferences. In the second section, which focuses on imagined barriers, we discuss the constructs of stereotype threat, biased self-estimates of abilities, work volition, and career self-efficacy, and describe their roles in career decision-making. In the third section, which focuses on unconscious barriers, we discuss group and individual differences in career preferences, explicit and implicit career preferences, and willingness to use particular abilities as critical factors in career decision-making. In our concluding remarks, we discuss the counselling implications of the proposed theoretical account of career barriers and propose replacing the word *barriers* by the word *hurdles*.

THEORETICAL FRAMEWORK

We address social justice with a progressive socio-political ideology. Adopting Watts's (1996) fourfold typology of socio-political ideologies to career counselling, we claim that a *progressive ideology* focuses on individual change, seeking to raise the aspirations of individuals to the highest level possible within the existing social power relations. In contrast to the liberal view – which also concentrates on the individual, but focuses on maximizing the fit between a career path and the individual's self-reported abilities, interests, and values (for more on liberalism and neoliberalism, see Gane, 2014) – the progressive approach assumes that individual voices are themselves shaped by existing social power relations and thus should be regarded with some suspicion. Thus, while the long tradition of career counselling has advocated helping clients choose a career path that fits their measured characteristics (Parsons, 1909; Holland, 1997), we argue that career counsellors should adopt a critical stance toward such measurements and aim at helping their clients strive toward better jobs.

In addition, we regard ourselves as part of a theoretical framework that approaches career counselling as decision-making counselling, whose goal is helping clients make better career decisions. The basis of this view is the assumption that the more knowledgeable individuals are about the different facets of career choice – their own selves and the career decision-making process – the more likely they are to be satisfied with their career outcomes (Gati, 2013). This framework differs from other career counselling frameworks mainly in its emphasis on the present choice and the decision-making process. In contrast, other frameworks, such as developmental- or personality-geared ones (for reviews, see Rottinghaus & Miller, 2013; Sharf, 2013), tend to emphasize the characteristics of the individual and his or her previous career experiences. Nevertheless, the decision-making framework should not be viewed as contradictory to the others but rather as building on insights from other frameworks and complementing them (e.g., Sharf, 2013; Gati & Levin, 2014).

In short, the career decision-making framework adopts Parsons' (1909) basic tenet that individuals should make career decisions by taking into account both their own characteristics (including their abilities, preferences, and values) and information about the various career options. Within this framework, social inequality is manifested in situations in which the career alternatives considered at the end of the process are more circumscribed for some individuals than for others. We argue that today, at least in large parts of the Western world, a significant portion of this inequality stems from the individuals themselves.

Lastly, according to the suggested framework, many factors should be considered by individuals trying to make a career choice (e.g., about majors, occupations, employers). A common parsimonious classification combines these factors into abilities and preferences (Darcey & Tracey, 2003; Holland, 1997; Tracey & Hopkins, 2001). The underlying logic is that, when trying to make a career choice, individuals must consider both what they would like to do (preferences) and what they are able to do (abilities). Since research has repeatedly shown that both abilities and preferences predict career outcomes (Brown, 2002; Holland, 1997; Gottfredson, 2005), when one's assessments of abilities and preferences are significantly biased, one is more likely to consider and then choose less suitable career alternatives.

IMAGINED BARRIERS

We define *imagined barriers* to career development as false beliefs about an individual's abilities that prevent him or her from considering occupations that might have led to better outcomes. This definition includes three principal components. First, these beliefs involve individuals' assessments of what they can and cannot do (a barrier concerning abilities). Second, these beliefs are often unrelated to what an individual is actually able to do (an imagined barrier). Third, they often lead to a compromise in career decision-making that may be formulated as follows: "Since I do not have the needed skills and abilities to pursue this career path, I will not even consider it, but will choose an inferior career path that I believe I can succeed at" (a conscious barrier). In this section we show that there is much empirical support for the claim that individuals in minority groups that have been discriminated against in the past are more likely to perceive imagined barriers during their career development.

Abilities are commonly regarded as "what a person can do now, or will be potentially able to do in the future" (Betz, Fitzgerald, & Hill, 1989, p. 28). Career counsellors usually assess their clients' abilities so as to avoid considering options their clients are clearly underqualified for. However, the assessment of what people can do in terms of their abilities may be biased by the clients' own views, which can lead in two different directions to the same main outcome. On the one hand, when individuals' abilities are overestimated, they may consider and pursue unrealizable possibilities that will result in failure, leading to emotional distress and wasted time. On the other hand, when individuals' abilities are underestimated, they may

eliminate career alternatives they consider unrealistic due to their beliefs about these abilities (Gottfredson, 2005; Osipow & Fitzgerald, 1996), thereby excluding promising options. In both cases, the principal outcome of a biased assessment of abilities is considering occupations that are less than optimal for the individual.

We begin this section with the topic of stereotype threat (defined below). The effects of stereotype threat demonstrate how different social minorities may perform differently according to the extent to which their social membership is made salient during assessment. As such, this illustrates how individuals' beliefs may alter their measured abilities.

Stereotype Threat

The term "stereotype threat" was introduced by Steele and Aronson (1995), who showed that African-American college students performed more poorly on standardized tests than white students if their race was highlighted. When race was not made salient, African-Americans performed as well as whites (but see Harrison, Steven, Monty, & Coakley, 2006). Similar results were demonstrated in studies comparing the performance of men and women in math (Spencer, Steele, & Quinn, 1999), or the performance of individuals from different socioeconomic backgrounds on intellectual tasks (Harrison et al., 2006). Interestingly enough, other studies have shown that members of the dominant group may also experience stereotype threat, as in the case of whites compared to Asian men in math ability (Aronson et al., 1999) or whites compared to ethnic minorities in tasks involving sports abilities (Stone, 2002).

According to Aronson (2002), group membership, domain identification, group identification, internal locus of control, proactive personality, and stereotype knowledge and belief are among the most salient factors that determine an individual's degree of susceptibility to stereotype threat. In general, it has been argued that underperformance due to stereotype threat occurs in instances in which individuals consider a stereotype as involving their concept of social self (Marx & Stapel, 2006). Specifically, performance is undermined because of the concerns experienced by individuals who are afraid of confirming the stereotype. Furthermore, the effects of stereotype threat are not limited to poorer performance on ability tests but also include an increase in self-defeating strategies (Stone, 2002), distancing and disengagement from related domains of activity (Crocker, Major, & Steele, 1998), or even lead to changing affected individuals' vocational aspirations and identities (Gupta & Bhawe, 2007).

Studies have found several ways of reducing the effects of stereotype threat. First, encouraging individuals to think of themselves beyond stereotypical self-concepts as complex and multifaceted attenuates these effects (e.g., asking women to focus on the similarities between men and women's academic performance; Rosenthal, Crisp, & Suen, 2007). Second, reminding individuals of their membership in social groups that are associated with positive performance expectations, as well as informing them

that social identities are not essentially predictive of abilities, will also attenuate the effects of stereotype threat (e.g., McGlone & Aronson, 2006). A third possibility is providing individuals with role models (e.g., McIntyre, Paulson, & Lord, 2003). These findings suggest ways in which career counsellors can more reliably assess their clients' abilities.

The topic of stereotype threat focuses on group differences in performance that are primarily the result of self-identification with a cultural group. Such identification may lead to the belief that individuals' level of measured abilities is lower than it actually is. Consequently, career decision-makers (or their counsellors) may be inclined to neglect potential promising career alternatives due to insufficient levels of measured abilities. At the group level, such a mechanism may explain why some minority groups are underrepresented in prestigious positions in some educational settings or in the job market.

In vocational psychology, the findings on stereotype threat have not been sufficiently integrated or systematically tested. By highlighting this topic in the present chapter, we encourage researchers and practitioners to consider it in their work. As the following sections demonstrate, some of the research lines in our field have produced similar results. Thus, combining findings on stereotype threat and related findings in vocational psychology may lead to a more refined and precise understanding of the mechanisms underlying the biases in the assessment of measured abilities among individuals from social minorities.

Self-Estimates of Abilities

There are three facets of abilities relevant for career decisions and counselling: measured abilities, self-estimates of abilities, and willingness to use one's abilities (Gati, Fishman-Nadav, & Shiloh, 2006). The first facet, measured abilities, refers to the assessment of individuals' abilities based on standardized tests. Although measured abilities are usually considered during career counselling (Gati & Asher, 2001; Gottfredson, 2005; Osipow & Fitzgerald, 1996), some researchers have questioned this focus (Gati, 2013; Prediger, 1999). In particular, Prediger (1999) noted that most test batteries assess no more than six abilities and thus do not provide an exhaustive account of individuals' abilities. Moreover, he claimed that there are no validated tests for some abilities (e.g., organizational, artistic, and social abilities).

In light of the limitations of assessments of abilities, Prediger recommended relying on individuals' self-estimates of their abilities together with measured abilities when the latter are available. According to Harrington and Schafer (1996), self-estimates of abilities are an extension of individuals' self-concept – namely, they represent the abilities individuals consciously believe they have. Since they are the result of reflection, self-estimations of abilities are grounded in what the individual knows. Consequently, self-estimates of abilities may be more liable than measured abilities to limit the space of career alternatives considered by an individual (Gati, 2013; Gati, Fishman-Naday, & Shiloh, 2006). Indeed, if an

individual does not believe in his or her ability to complete certain tasks, he or she will most likely not consider career alternatives requiring this ability (Darcy & Tracey, 2003; Prediger, 1999).

Individuals often assess their abilities in a biased manner. Studies have found, for example, that most individuals tend to overestimate their intelligence scores (Furnham, 2001; Furnham, Shahidi, & Baluch, 2002). Visser, Ashton, and Vernon (2008) reported that men tend to overestimate their abilities more than women. In addition, it was found that individuals high on Conscientiousness, Extraversion, and Openness to Experience, and low on Neuroticism, were also more likely to overestimate their abilities. Similarly, Ehrlinger and Dunning (2003) showed that, despite performing as well as men on a science test, women underestimated their abilities and were more likely to refuse to enter a science competition. Similar differences in self-estimations of abilities were also shown for different national groups (Furnham, Fong, & Martin, 1999; Furnham et al., 2002). Taken together, these findings suggest that individuals might avoid considering promising career options because they underestimate their abilities. Likewise, potential employers may regard individuals who tend to overestimate their abilities as more appealing than those providing a more realistic assessment.

A third facet of abilities is individuals' willingness to use them. As this third facet is more closely related to individuals' preferences, we will discuss it in the next section, which focuses on career barriers involving preferences. The remainder of the present section is devoted to discussing how the assessment of abilities may be influenced by the degree to which individuals believe they are able to overcome barriers to achieving their goals (work volition) and beliefs regarding their capacity to successfully complete tasks that are prerequisites for achieving these goals (self-efficacy beliefs). Involving the latter, as demonstrated by Brown, Lent, and Gore (2000), even though self-estimates of abilities and self-efficacy beliefs partially overlap, they should nonetheless be treated as empirically distinct.

Work Volition

Work volition has emerged as an important construct in recent years. In contrast to career barriers, which involve real or perceived constraints on individuals' career development (e.g., lack of funding for education or a language barrier), work volition has been conceptualized as "individual's perceived capacity to make occupational choices despite constraints" (Duffy, Diemer, Perry, Laurenzi, & Torrey, 2012, p. 400). That is, it refers mainly to the degree to which individuals believe they face career barriers regardless of whether these barriers actually exist. Indeed, supporting their conceptual distinction, the associations between career barriers and work volition were found to be only partial (Duffy et al., 2012).

The development of the construct of work volition was inspired by Blustein's *Psychology of Working*. This framework conceptualizes individuals as decision makers in a world that often constrains their freedom of choice (Blustein, 2006;

2008). Although many individuals do not have the privilege of making their own career decisions, Blustein argued that most studies in vocational psychology have nevertheless focused on the career development of those with work volition. To address this shortcoming, Duffy and his colleagues developed a measure of work volition, hoping to better understand and explain the mechanisms underlying the career development of a large part of the world's population.

Work volition has been shown to act as a critical moderator in the prediction of positive career outcomes (Duffy, Bott, Allan, & Autin, 2013; Duffy, Bott, Torrey, & Webster, 2013). However, findings indicate that it does not appear to be equally distributed among social groups – that is, social minorities are more likely to report having less work volition. One study showed that women have lower mean levels of work volition than men (Duffy et al., 2012; but see Duffy, Diemer, & Jadidian, 2012). A similar difference was revealed when students of color were compared to whites (Duffy, Diemer, & Jadidian, 2012). These findings suggest that certain social groups are more likely to have lower work volition. Consequently, we wonder whether these findings indicate that society has not yet reached structural equality or whether they indicate that individuals from minority groups are more likely to face actual or perceived career barriers to their career development (which in turn result in the perpetuation of their inferior status in the labour market). While empirical support for either of these two possibilities is still lacking, we prefer to recommend encouraging individuals to investigate and plan their careers toward what they envision for themselves, even if it is beyond what seems accessible.

Career Self-Efficacy

Whereas the construct of work volition refers to individuals' beliefs about their capacity to realize career decisions despite barriers, the closely-related construct of career self-efficacy refers to individuals' beliefs about their ability to complete a specific career task (for a fine-grained definition, see Betz & Hackett, 2006). The associations between work volition and career decision-making self-efficacy, where the latter specifically measures individuals' beliefs about their capacity to complete the career decision-making process, are moderate and support the claim that these constructs partially overlap (Duffy, Diemer, & Jadidian, 2012). Nevertheless, career self-efficacy (as opposed to career decision-making self-efficacy; Jadidian & Duffy, 2012) involves the assessment of a wide range of beliefs about abilities, and as such is more general than work volition. Nonetheless, the associations between career self-efficacy and work volition also show that the two constructs overlap (Duffy et al., 2012). With these reservations, we can now discuss the broader construct of career self-efficacy.

The construct of career self-efficacy, often seen as the key concept of the Social Cognitive Career Theory (SCCT), was introduced by Hackett and Betz (1981) more than a decade prior to SCCT (Lent, Brown, & Hackett, 1994; Betz & Hackett, 2006). Based on Bandura's (1977; 1997) social learning theory, self-efficacy was defined

as referring to individuals' beliefs about their ability to successfully execute certain actions. Bandura showed that individuals with low levels of self-efficacy were less likely to initiate goal-related activities. This, in turn, led them to fail in realizing their goals. Social learning theory claims that in cases of low self-efficacy failure often does not stem from a lack of ability but rather from a lack of confidence in one's ability.

Following earlier attempts to introduce Bandura's social learning theory into vocational psychology, Hackett and Betz (1981) suggested using it as an alternative explanation to account for why some individuals do not attempt to pursue their career goals. In particular, Hackett and Betz (1981), focusing on women's vocational behavior, suspected that some individuals might limit the scope of the career options they considered due to socialization processes that led them to create and maintain negative beliefs about their chances of success. Indeed, several meta-analytic investigations have supported the idea that career self-efficacy plays a major role in the career development of individuals in specific groups (Multon, Brown, & Lent, 1991; Rottinghaus, Larson, & Borgen, 2003; Stajkovic & Luthans, 1998; for a recent review, see Sharf, 2013).

In the area of career decision-making, researchers have investigated the associations between individuals' career decision-making self-efficacy and other career variables. Since the majority of career decisions are made without professional assistance, being more competent in decision-making is more likely to lead to better career-related outcomes. Indeed, individuals who report having better career decision-making abilities (i.e., greater career decision-making self-efficacy) have fewer negative career thoughts (Bullock-Yowell, Andrews, & Buzzetta, 2011), fewer emotional and personality-related difficulties in the career decision-making process (Gati et al., 2011), and greater career commitment (Chung, 2002; Sandler, 2000). Some studies, however, also found that members of certain groups are more likely to report lower levels of career decision-making self-efficacy. While most related studies focused on the career decision-making self-efficacy of women (Betz & Hackett, 2006), some studies have shown that members of ethnic minorities are also likely to report having lower levels of career decision-making self-efficacy (Gloria & Hird, 1999; Gushue, 2006; but see Chung, 2002).

To test the effects of low career decision-making self-efficacy as an imagined barrier to career development, we make use of two studies focusing on investigating the sources of career decision-making self-efficacy. Quimby and O'Brien (2004) found that social support accounted for some of the variance of the career decision-making self-efficacy scores of nontraditional college women (i.e., women from socioeconomic backgrounds that are not traditionally represented in the academia). This finding demonstrates how an apparently intra-individual, personality-related variable is in fact affected by an external social variable for individuals from lower socioeconomic backgrounds. In another study among urban African-American high-school students, it was found that higher levels of career decision-making self-efficacy were associated with having a more differentiated vocational self-concept

and greater engagement in career exploration activities (Gushue, Scanlan, Pantzer, & Clarke, 2006). Taken together, these results suggest that career decision-making self-efficacy is changeable. Respectively, career counsellors may thus want to inform clients who report low levels of career decision-making self-efficacy about the steps involved in the career decision-making process (Gati, Fassa, & Houminer, 1995; Gati & Tal, 2008), in addition to encouraging career exploration activities and reflection about the self.

There are three major points about imagined barriers that we would like to highlight here. First, the recognition that individuals' beliefs could affect their career trajectories is only three decades old. We consequently speculate that research and practice based on these findings have not yet actualized their potential for promoting the changes in social justice that we are striving for. Second, most of the constructs reviewed in this section sprouted from a social-justice perspective on career counselling, such as gender inequality in career self-efficacy or work volition among those with limited ability to make career choices. This fact alone highlights the major role of the issue of social justice in our profession. Lastly, the development of the various constructs reviewed in this section was driven by a theoretical perspective according to which imagined barriers can lead to a real difference in individuals' career decision-making. One role of career counsellors is encouraging their clients not to give up career alternatives due to such imagined barriers.

UNCONSCIOUS BARRIERS

The psychological construct of the unconscious has been recently reintroduced as a valid topic for scientific investigation (Damasio, 2010; Hassin, 2013). The study of the role of unconscious processes in career decision-making has also reemerged in vocational psychology. Indeed, the importance of such processes was recognized in one of the first theories of vocational psychology, that of Hugo Munsterberg in the early 20th century (Porfeli, 2009). In recent decades, with the resurgence of research on intuition and emotions (Hartung, 2011), the notion that our behavior is influenced by factors outside of our awareness has become prominent.

To date, the construct of the unconscious has typically been operationalized as processes and aspects that remain outside of individuals' awareness. Within vocational psychology, Krieshok and his colleagues have been the prominent advocates of the notion of the unconscious (Krieshok, 1998; 2001; Krieshok, Black, & McKay, 2009; but see also Maree, 2013; Savickas, 2011). Specifically, Krieshok argued that most decision-making occurs outside of awareness. As a result, many popular career counselling interventions, relying upon clients' articulating their career-related aspects (e.g., preferences or abilities), lead to misjudgments and errors. According to Krieshok, these errors are to a great extent the result of failing to consider many of the unconscious parameters relevant to career choice. Career counselling interventions that do not take into account such parameters are more likely to concentrate on inappropriate career alternatives. To minimize the negative

impact of disregarding these unconscious parameters, Krieshok suggested focusing on the collection of information through ongoing active experience, thereby leading clients to explore and engage in different cognitive and emotional facets of the process and the world of work.

Nonetheless, let us now consider a somewhat different implication of unconscious factors in career decision-making, focusing on unconscious mechanisms that can bias the way preferences are shaped. Our discussion of the impact of biased career preferences on career development frames them as unconscious barriers to career development. In contrast to imagined barriers, which are reflected in biased conscious beliefs about what an individual can and cannot do, it would be somewhat pretentious to regard individuals' preferences as biased and suggest that they do not really know what they want and like. Nevertheless, the fact that individuals have certain career preferences and not others may lead to the perpetuation of social inequality for underprivileged groups. To support this notion, we include three examples that illustrate how career preferences may present unconscious barriers to individuals' career development: findings on (1) group differences in career preferences, (2) explicit and implicit career preferences, and (3) willingness to use certain abilities.

We define unconscious barriers to career development as false beliefs about an individual's preferences that lead him or her to focus on less suitable occupations rather than those in line with what the individual would like to do. This definition includes four principal claims, which will be further developed in this section. First, these beliefs involve individuals' assessments of what they would or would not like to do (a barrier involving preferences). Second, different measures of preferences lead to discrepancies in assessments, indicating that individuals' preferences are possibly not being reliably assessed. In such cases some evaluations may indicate that there are better career alternatives that are suitable to the individual's preferences for only some of the measurements used. Third, these beliefs should be considered unconscious, because their impact on career choice is not reflected in a conscious compromise (an unconscious barrier). Lastly, individuals from minority groups that have traditionally suffered discrimination in the past are more likely to be thwarted by these unconscious barriers during their career development.

Group Differences in Career Preferences

Career preferences are the second major group of factors that guide individuals in their career choice. They comprise what an individual is looking for in work, including preference for certain activities (vocational interests) such as helping people, work values such as contributing to society, willingness to use certain abilities such as verbal ability, and other factors such as length of training, work environment, and teamwork. Traditionally, vocational interest inventories have been used to identify occupations compatible with individuals' vocational preferences (Holland, 1966; Roe, 1956). Later, the notion of career aspect preferences was advanced to include additional aspects such as work values (e.g., independence, prestige, economic

security; Katz, 1973) and willingness to use an ability (Gati, Fishman-Nadav, & Shiloh, 2006). Following Pryor (1982), Gati (1986) proposed the term "aspects" for all the factors individuals consider in their career decision-making, representing the universe of all characteristics that distinguish individuals and occupations. As such, aspect-based preferences can be regarded as an extension and refinement of vocational interests (Gati, Fassa, & Mayer, 1998).

In career decision-making, preferences involve mainly what individuals would like to do in their work. Difficulties in career decision-making associated with the formulation of preferences may arise when individuals do not know what they like or prefer, when they cannot articulate their preferences, or when they perceive them incorrectly. In line with the integration of Person-Environment (P-E) fit theory with the career decision-making approach (c.f., Gati, 2013), when there is a significant discrepancy between what an individual would really enjoy doing at work and what he or she thinks is preferable, individuals are more liable to make choices that do not suit them very well and that they will find less enjoyable, leading to less satisfaction with their work.

Compared to abilities, which may be measured with high reliability, career preferences reflect individuals' tastes. Several scholars have adopted a cultural critique of taste, contending that preferences are shaped to a large degree by social status (Bourdieu, 1984; for a recent related empirical study in vocational psychology, see Vilhjálmsdóttir & Arnkelsson, 2013). Consequently, it may be argued that individuals from lower socioeconomic backgrounds are more likely to have preferences that pose barriers to career success. Nevertheless, other researchers have promoted a multicultural approach to career counselling that recognizes the right of individuals to engage in a life according to their own values (Leong & Flores, 2013). Choosing between these two approaches is beyond the scope of the present chapter. For now, we just intend to point out that such a debate is taking place.

In principle, the career decision-making process should result in finding a career alternative that the individual would like to pursue. There are two strategies that individuals can adopt to derive a list of promising alternatives. One strategy is to holistically assess fit to various occupations or career options, evaluating them mainly on the basis of occupational or job titles. This holistic approach stems from focusing on the question of which occupation the individual finds desirable. To this end, individuals consider and compare different career alternatives and choose among them. The outcome of such an approach is often called the explicit list of considered occupations.

Several studies have investigated whether the alternatives derived from such a holistic decision-making process can be distinguished according to the individuals' group membership – that is, whether social membership is associated with a certain range of explicit career preferences. Saks and Shore (2005) showed that individuals' socioeconomic backgrounds were associated with their choice of major. Specifically, wealthier students were more likely to choose riskier career possibilities that offer high salaries for some individuals but not for others (e.g., business administration,

performing arts). Heppner and Jung (2013) discussed social class and gender as significant predictors of career choice. In contrast, however, the results of a meta-analysis revealed that race and ethnicity do not significantly influence career aspirations (Fouad & Byars-Winston, 2005).

In addition to the holistic approach to career choice, a second approach to career decision-making involves analyzing career alternatives in terms of career-related aspects. For instance, instead of framing the comparison as one between different occupations, individuals may benefit from framing it as one between their preferred career aspects and the specific characteristics of the promising occupations (Gati, Houminer, & Fassa, 1997; Gati, Houminer, & Aviram, 1998). The basic question that an analytic approach tries to answer is what an individual would like to do at his or her job. The outcome of such an approach is often called the implicit or derived list of occupations recommended for further exploration.

The majority of studies that have investigated group differences in career preferences have focused on gender differences. A meta-analysis that included samples of US participants from 1970 to 1998 showed that career preferences are largely affected by gender stereotypes (Konrad, Ritchie, Lieb, & Corrigall, 2000). A more recent study that compared gender differences in career preferences in 1990 to those in 2010 showed that in most aspects gender differences were reduced but not eliminated (Gati & Peretz, 2014). Specifically, men have been more likely to prefer for Science, Technology, Engineering, and Mathematics (STEM) related aspects (e.g., using technical ability, working with computers). These results highlight the continuing need to investigate the determinants of individuals' preferences, and find new ways of disentangling individual characteristics from group membership. In the next subsection, we further discuss the issue of explicit and implicit career alternatives at the individual level.

Explicit and Implicit Career Preferences

The explicit-implicit distinction may be used to distinguish career alternatives identified using an analytic approach from those recommended following a holistic approach. Explicit career alternatives are those that individuals report that they are considering. Implicit career alternatives, in contrast, are occupations that are recommended for further exploration based on reported aspect-based career preferences (Gati & Tal, 2008).

To illustrate how career preferences can influence career decision-making – both the process and the outcomes – we review evidence from a free Internet-based career planning system that uses individuals' career preferences to locate a short list of potentially suitable occupations that are worth further, in-depth exploration. *Making Better Career Decision (MBCD*, http://mbcd.intocareers.org, retrieved May 15, 2014) is a free Internet-based system that was designed to help individuals make career decisions by guiding them through a systematic process (Gati, 1996). Individuals using this system are instructed first to rank-order 28 career-related

aspects by importance, and then, in the order of importance, report the most desirable level (e.g., *mostly indoors*) as well additional levels they consider acceptable (e.g., *only indoors* and *about equally indoors and outdoors*). Based on this input, the system screens its database of more than 500 occupations and provides a short list of occupations whose characteristic levels best match the user's preferences (for more details see Gati & Levin, 2014).

Previous studies have supported the effectiveness of the system by showing that its use reduced the range of considered occupations for about half of a sample of 712 young adults (Gati, Kleiman, Saka, & Zakai, 2003). The results of this study also revealed that although participants' willingness to recommend the system to a friend depended on the degree to which they had become more decided, more than 83% of all participants were willing to recommend it. This result implies that users benefited from the system in other ways that were probably not measured. In addition, one study provided support for the effectiveness of *MBCD* in reducing career indecision (Gati, Saka, & Krausz, 2001). Finally, another study showed that individuals working in an occupation that was included in the *MBCD* recommended list were much more satisfied with their career choice six years later than those working in occupations that were not included among the systems' recommendations (Gati, Gadassi, & Shemesh, 2006).

This evidence supports the value of relying on the assessment of career preferences in an analytical career decision-making instead of only relying on a holistic judgment of various occupations. It shows that individuals' systematically elicited aspect-based preferences can be used effectively to narrow down the list of relevant occupations worth further exploration. Moreover, it demonstrates the significant contribution of instructing individuals to use a systematic approach in their career decision, even if this is not their intuitive way of making a career choice. Specifically, by encouraging individuals to focus on their preferences as well, career counselors can help reduce their clients' perceived career barriers.

In addition, the explicit-implicit distinction has also helped show that individuals often report socially biased preferences. Specifically, Gadassi and Gati (2009) asked young adults deliberating about their future careers to list the occupations they were considering. These occupations comprised the individual's explicit list. The implicit list of occupations was then derived on the basis of the recommendations made by the *MBCD* after the young adults reported their aspect-based career preferences. Each occupation on both lists was then assigned a score reflecting the degree to which the occupation is dominated by men or women. The results of this study showed that the explicit list accorded with each participant's gender for both men and women. In contrast, there was significantly less gender bias in the derived, implicit list. Furthermore, the difference in gender bias between the two lists was greater for women than for men, suggesting that the impact of gender stereotypes on career choices is greater for women.

These findings illustrate that women are more likely than men to choose occupations based more on their internalization of gender stereotypes and less on their

own preferences. Together with the findings on career self-efficacy (and specifically career decision-making self-efficacy) presented in the previous subsection, these findings show that women's assessment of both their preferences and their abilities is more likely to be biased and lead to choices that are more culturally than personally congruent.

Willingness to Use Certain Abilities

Willingness to use one's abilities is a third facet of abilities that influences career decision-making. The following example illustrates the difference between this facet and the two discussed in the previous subsections. An individual may be one of the best jazz singers in class (measured ability), feel that he or she indeed has musical talent (self-estimate of an ability), but nevertheless not want to pursue a musical career (lack of willingness to use the ability in her future career). As willingness to use an ability may be better conceptualized as a career preference for using an ability, in line with our definition of unconscious barriers, we include it in the present section dealing with this topic. Although the preference itself is often conscious, the reasons behind it are likely to be unconscious.

To date, Gati, Fishman-Nadav, and Shiloh (2006) have been the only researchers to investigate the associations between these three facets of abilities. They found that an individual's willingness to use certain abilities in future occupations was associated with his or her self-estimated ability. For example, individuals who believe that they are high on analytical thinking are more likely to look for an occupation or job that requires such skills. This finding complements what was already known about the significant associations between career self-efficacy and career choice. Interestingly enough, Gati and his colleagues found a low correlation between willingness to use an ability and measured ability. This finding demonstrates that individuals' performance on standardized tests (i.e., their measured abilities) is not reliably associated with their willingness to use an ability. Given the significant associations between willingness to use an ability and self-estimates of abilities, this finding too suggests that the assessment of individuals' abilities should not be based solely on self-reports. Lastly, these findings show that individuals may choose to pursue career alternatives that are unsuitable for their abilities.

These findings concerning the associations among the three facets of abilities reflect the intricacy involved in the assessment of individuals' abilities. Since career counsellors are expected to provide clients with career recommendations based on the latter's abilities and preferences, these findings illustrate the importance of using a variety of sources for assessing abilities. Career counsellors often encounter cases in which the assessments of these three facets of abilities complement one another. In such cases, counsellors may be more confident that they have constructed a valid picture of their client's abilities. In other cases, in which assessments of abilities yield contradictory findings, career counsellors should be more cautious and devote more time to discussing abilities with their clients.

CONCLUDING REMARKS: FROM BARRIERS TO HURDLES

In the present chapter, we reviewed and discussed findings concerning the assessment of abilities and preferences in career decision-making. We tried to show that in some cases, especially in the case of minority groups, individuals may view their abilities and preferences in ways that make them more liable to encounter difficulties in career decision-making or make a less than optimal decision. Consequently, we regard such detrimental beliefs about the self as barriers to career development. Furthermore, we believe it is crucial to distinguish between real barriers to individual development that result from individual, social, or economic realities, on the one hand, and imagined or unconscious barriers that are the result of a distorted perception of reality, on the other.

A major distinction advanced here is between real barriers, on the one hand, and imagined or unconscious barriers, on the other. Career barriers are traditionally considered to include factors hindering the realization of the individual's career aspirations. In this chapter, relying on a progressive socio-political ideology, we adopted a somewhat different notion of career barriers, according to which there are some career alternatives that are likely to be more beneficial for many young adults. Thus, we were interested in understanding why individuals from certain social or racial groups were more inclined to avoid choosing such occupations. In such cases, it may be argued that group differences in career preferences or abilities constitute a social justice issue.

If individuals' self-reported abilities or preferences are biased, leading to an unjust distribution of advantages among individuals, it would be best to adopt a broader definition of career barriers. Helping individuals from minority groups maximize their career options involves evaluating not only real barriers but also imagined or unconscious ones. As we have attempted to show here, many findings indeed suggest that such barriers have a tremendous impact on individuals' career decision-making.

Moreover, we suggested treating biased assessment of abilities as imagined barriers and biased assessment of preferences as unconscious barriers. We hope that future research will empirically test our suggested account, which states that the assessment of abilities involves different intricacies than the assessment of preferences. In particular, we maintain that abilities are more readily tested and validated, while preferences are more susceptible to individuals' freedom of choice. Nonetheless, as there is a complicated connection between abilities and preferences, the opposite line of thought may also be advocated. Specifically, people may be unaware of their true abilities or that people often imagine having preferences that are in fact the result of social pressure (Bourdieu, 1984). Thus, we consider our suggestion a valid starting point for exploring the idea that while people are not very accurate about the assessment of their abilities, they are typically aware of what they want and like.

We end our chapter with an additional theoretical suggestion for breaking away from traditional accounts of career barriers. The challenges individuals face on the way to realizing a particular goal have been conceptualized as barriers. We propose to use the term *hurdles* instead of barriers to refer to these challenges. The literal meaning of "barrier" is a fixed physical object that blocks access to a given target or goal, while the literal meaning of "hurdle" is an artificial, movable object which one can leap, typically with some effort. One implication of this distinction is that when a challenge is seen metaphorically as a barrier, the individual may give up the attempt to get over it, whereas if the challenge is seen metaphorically as a hurdle, the individual can think about how to remove it or jump over it. Thus it is helpful to consider one of the major goals of counselling as helping clients reframe the challenges they face in realizing their dreams as hurdles rather than as barriers, thus increasing the prospects for actualizing them.

NOTE

As mentioned, Watts's (1996) typology includes two additional ideologies that focus on social structure (the radical and the conservative ideologies) as opposed to individual development (the progressive and the liberal approaches). These two additional approaches encourage us to evaluate career guidance with respect to the question of whether it advances a change in the social structure or reinforces the status quo. Notwithstanding our recognition in the importance of career counsellors in shaping public policies (Blustein, 2008; Hansen, 2003; O'Brien, 2001), in the present chapter we confine ourselves to a discussion that focuses on individuals, not societies.

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REFERENCES

Aronson, J. (2002). Stereotype threat: Contending and coping with unnerving expectations. In J. Aronson (Ed.), *Improving academic achievement: Impact of psychological factors on education* (pp. 279–301). San Diego, CA: Academic Press. doi:10.1016/B978-012064455-1/50017-8

Aronson, J., Lustina, M., Good, C., Keogh, K., Steele, C. M., & Brown, J. (1999). When white men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Psychology*, 35, 29–46. doi:10.1006/jesp.1998.1371

Badiou, A. (2001). Ethics: An essay on the understanding of evil. London, England & New York, NY: Verso.

Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York, NY: Freeman.

Betz, N. E., & Hackett, G. (2006). Career self-efficacy theory: Back to the future. *Journal of Career Assessment*, 14, 3–11. doi:10.1177/1069072705281347

Betz, N. E., Fitzgerald, L. F., & Hill, R. E. (1989). Trait-factor theories: Traditional cornerstone of career theory. In M. B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 26–40). Cambridge, New York & Melbourne: Cambridge University Press.

- Blustein, D. L. (2006). The psychology of working. Mahwah, NJ: Erlbaum.
- Blustein, D. L. (2008). The role of work in psychological health and well-being: A conceptual, historical, and public policy perspective. *American Psychologist*, *63*, 228–240. doi:10.1037/0003-066X.63.4.228
- Blustein, D. L., McWhirter, E. H., & Perry, J. C. (2005). An emancipatory communitarian approach to vocational development theory, research, and practice. *The Counselling Psychologist*, *33*, 141–179.
- Bourdieu, P. (1984). *Distinctions: The social critique of the judgment of taste*. Cambridge, MA: Harvard University Press.
- Brown, S. D. (2002). The role of work and cultural values in occupational choice, satisfaction, and success: A theoretical statement. *Journal of counselling & development*, 80, 48–56. doi:10.1002/j.1556-6678.2002.tb00165.x
- Brown, S. D., Lent, R. W., & Gore, P. A. (2000). Self-rated abilities and self-efficacy beliefs: Are they empirically distinct? *Journal of Career Assessment*, 8, 223–235. doi:10.1177/106907270000800302
- Bullock-Yowell, E., Andrews, L., & Buzzetta, M. E. (2011). Explaining career decision-making self-efficacy: Personality, cognitions, and cultural mistrust. *The Career Development Quarterly*, *59*, 400–411. doi:10.1002/j.2161-0045.2011.tb00967.x
- Chung, Y. B. (2002). Career decision-making self-efficacy and career commitment: Gender and ethnic differences among college students. *Journal of Career Development*, 28, 277–284. doi:10.1023/A:1015146122546
- Constantine, M. G., Hage, S. M., Kindaichi, M. M., & Bryant, R. M. (2007). Social justice and multicultural issues: Implications for the practice and training of counselors and counseling psychologists. *Journal of Counseling & Development*, 85, 24–29. doi:10.1002/j.1556-6678.2007.tb00440.x
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma: The psychology of marked relationships. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 504–553). Boston, MA: McGraw-Hill.
- Damasio, A. (2010). Self comes to mind: Constructing the conscious brain. New York, NY: Pantheon.
- Darcy, M., & Tracey, T. J. (2003). Integrating abilities and interests in career choice: Maximal versus typical assessment. *Journal of Career Assessment*, 11, 219–237. doi:10.1177/1069072703011002007
- Duffy, R. D., Diemer, M. A., & Jadidian, A. (2012a). The development and initial validation of the work volition scale-student version. *The Counseling Psychologist*, 40, 291–319. doi:10.1177/0011000011417147
- Duffy, R. D., Diemer, M. A., Perry, J. C., Laurenzi, C., & Torrey, C. L. (2012b). The construction and initial validation of the work volition scale. *Journal of Vocational Behavior*, 80, 400–411. doi:10.1016/j.jvb.2011.04.002
- Duffy, R. D., Bott, E. M., Allan, B. A., & Autin, K. L. (2013a). Exploring the role of work volition within social cognitive career theory. *Journal of Career Assessment* [Advance online publication]. doi:10.1177/1069072713498576
- Duffy, R. D., Bott, E. M., Torrey, C. L., & Webster, G. W. (2013b). Work volition as a critical moderator in the prediction of job satisfaction. *Journal of Career Assessment*, 21, 20–31. doi:10.1177/1069072712453831
- Ehrlinger, J., & Dunning, D. (2003). How chronic self-views influence (and potentially mislead) estimates of performance. *Journal of Personality and Social Psychology*, 84, 5–17. doi:10.1037/0022-3514.84.1.5
- Fouad, N. A., & Byars-Winston, A. M. (2005). Cultural context of career choice: Meta-analysis of race/ethnicity differences. *The Career Development Quarterly*, *53*, 223–233. doi:10.1002/i.2161-0045.2005.tb00992.x
- Fouad, N. A., Gerstein, L. H., & Toporek, R. L. (2006). Social justice and counseling psychology in context. In R. L. Toporek, L. H. Gerstein, N. A. Fouad, G. Roysircar, & T. Israel (Eds.), *Handbook for* social justice in counselling psychology: Leadership, vision, action (pp. 1–16). Thousand Oaks, CA: Sage. doi:10.4135/9781412976220
- Friedman, T. L. (2006). The world is flat: The globalized world in the twenty-first century. London, UK: Penguin.
- Furnham, A. (2001). Self-estimates of intelligence: Culture and gender differences in self and other estimates of both general (g) and multiple intelligences. *Personality and Individual Differences*, 31, 1381–1405. doi:10.1016/S0191-8869(00)00232-4

- Furnham, A., Fong, G., & Martin, N. (1999). Sex and cross-cultural differences in the estimated multi-faceted intelligence quotient score for self, parents and siblings. *Personality and Individual Differences*, 26, 1025–1034. doi:10.1016/S0191-8869(98)00201-3
- Furnham, A., Shahidi, S., & Baluch, B. (2002). Sex and culture differences in perceptions of estimated multiple intelligence for self and family. *Journal of Cross-Cultural Psychology*, 33, 270–285. doi:10.1177/0022022102033003004
- Gadassi, R., & Gati, I. (2009). The effect of gender stereotypes on explicit and implicit career preferences. *The Counseling Psychologist*, *37*, 902–922. doi:10.1177/0011000009334093
- Gane, N. (2014). Trajectories of liberalism and neoliberalism. *Theory, culture & society* [Advance online publication]. doi:10.1177/0263276413510021
- Gati, I. (1986). Making career decisions: A sequential elimination approach. *Journal of Counseling Psychology*, 33, 408–417. doi:10.1037/0022-0167.33.4.408
- Gati, I. (1996). Computer-assisted career counseling: Challenges and prospects. In M. L. Savickas & B. W. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 169–190). Palo Alto, CA: Davies-Black.
- Gati, I. (2013). Advances in career decision making. In B. W. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research and practice* (4th ed., pp. 183–215). New York, NY: Routledge.
- Gati, I., & Asher, I. (2001). Prescreening, in-depth exploration, and choice: From decision theory to career counseling practice. *The Career Development Quarterly*, 50, 140–157. doi:10.1002/j.2161-0045.2001.tb00979.x
- Gati, I., & Levin, N. (2014). Making better career decisions. In P. J. Hartung, M. L. Savickas, & B. W. Walsh (Eds.), *Handbook of career intervention* (Vol. 2, pp. 193–207). Washington, DC: American Psychological Association. doi:10.1037/14439-015
- Gati, I., & Perez, M. (2014). Gender differences in career preferences from 1990 to 2010: Gaps reduced but not eliminated. *Journal of Counseling Psychology*, 61, 63–80. doi:10.1037/a0034598
- Gati, I., & Tal, S. (2008). Decision-making models and career guidance. In J. Athanasou & R. Van Esbroeck (Eds.), *International handbook of career guidance* (pp. 157–186). Berlin, Germany: Springer.
- Gati, I., Fassa, N., & Houminer, D. (1995). Applying decision theory to career counseling practice: The sequential elimination approach. *Career Development Quarterly*, 43, 211–220. doi:10.1002/j.2161-0045.1995.tb00861.x
- Gati, I., Houminer, D., & Fassa, N. (1997). Framings of career compromises: How career counselors can help. *The Career Development Quarterly*, 45, 390–399. doi:10.1002/j.2161-0045.1997.tb00543.x
- Gati, I., Fassa, N., & Mayer, Y. (1998). An aspect-based approach to person–environment fit: A comparison between the aspect structure derived from characteristics of occupations and that derived from counselees' preferences. *Journal of Vocational Behavior*, 53, 28–43. doi:10.1006/jvbe.1997.1609
- Gati, I., Houminer, D., & Aviram, T. (1998). Career compromises: Framings and their implications. *Journal of Counseling Psychology*, 45, 505–514. doi:10.1016/j.jvb.2005.08.002
- Gati, I., Saka, N., & Krausz, M. (2001). Should I use a computer-assisted career guidance system? It depends on where your career decision-making difficulties lie. *British Journal of Guidance and Counselling*, 29, 301–321. doi:10.1080/03069880124945
- Gati, I., Kleiman, T., Saka, N., & Zakai, A. (2003). Perceived benefits of using an internet-based interactive career planning system. *Journal of Vocational Behavior*, 62, 272–286. doi:10.1016/S0001-8791(02)00049-0
- Gati, I., Fishman-Nadav, Y., & Shiloh, S. (2006). The relations between preferences for using abilities, self-estimated abilities, and measured abilities among career counseling clients. *Journal of Vocational Behavior*, 68, 24–38. doi:10.1016/j.jvb.2005.04.002
- Gati, I., Gadassi, R., & Shemesh, N. (2006). The predictive validity of a computer-assisted career decision-making system: A six-year follow-up. *Journal of Vocational Behavior*, 68, 205–219.
- Gati, I., Gadassi, R., Saka, N., Hadadi, Y., Ansenberg, N., Friedmann, R., & Asulin-Peretz, L. (2011). Emotional and personality-related aspects of career decision-making difficulties: Facets of career indecisiveness. *Journal of Career Assessment*, 19, 3–20. doi:10.1177/1069072710382525

- Gloria, A. M., & Hird, J. S. (1999). Influences of ethnic and nonethnic variables on the career decision-making self-efficacy of college students. *The Career Development Quarterly*, 48, 157–174. doi:10.1002/j.2161-0045.1999.tb00282.x
- Gottfredson, L. S. (2005). Applying Gottfredson's theory of circumscription and compromise in career guidance and counseling. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 71–100). Hoboken, NJ: Wiley.
- Gupta, V. K., & Bhawe, N. M. (2007). The influence of proactive personality and stereotype threat on women's entrepreneurial intentions. *Journal of Leadership & Organizational Studies*, *13*(4), 73–85. doi:10.1177/10717919070130040901
- Gushue, G. V. (2006). The relationship of ethnic identity, career decision-making self-efficacy and outcome expectations among Latino/a high school students. *Journal of Vocational Behavior*, 68, 85–95. doi:10.1016/j.jvb.2005.03.002
- Gushue, G. V., Scanlan, K. R., Pantzer, K. M., & Clarke, C. P. (2006). The relationship of career decision-making self-efficacy, vocational identity, and career exploration behavior in African American high school students. *Journal of Career Development*, 33, 19–28. doi:10.1177/0894845305283004
- Hackett, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. *Journal of Vocational Behavior*, 18, 326–339. doi:10.1016/0001-8791(81)90019-1
- Hansen, S. S. (2003). Career counselors as advocates and change agents for equality. *The Career Development Quarterly*, 52, 43–53. doi:10.1002/j.2161-0045.2003.tb00626.x
- Hardt, M., & Negri, A. (2000). Empire. Cambridge, MA: Harvard University Press.
- Harrington, T. F., & Schafer, W. D. (1996). A comparison of self-reported abilities and occupational ability patterns across occupations. *Measurement and Evaluation in Counseling and Development*, 28, 180–190.
- Harrison, L. A., Stevens, C. M., Monty, A. N., & Coakley, C. A. (2006). The consequences of stereotype threat on the academic performance of white and non-white lower income college students. *Social Psychology of Education*, 9, 341–357. doi:10.1007/s11218-005-5456-6
- Hartung, P. J. (2011). Barrier or benefit? Emotion in life-career design. *Journal of Career Assessment*, 19, 296–305. doi:10.1177/1069072710395536
- Hartung, P. J., & Blustein, D. L. (2002). Reason, intuition, and social justice: Elaborating on Parsons's career decision–making model. *Journal of Counseling & Development*, 80, 41–47. doi:10.1002/j.1556-6678.2002.tb00164.x
- Hassin, R. R. (2013). Yes it can: On the functional abilities of the human unconscious. *Perspectives on Psychological Science*, 8, 195–207. doi:10.1177/1745691612460684
- Heppner, M. J., & Jung, A. K. (2013). Gender and social class: Powerful predictors of a life journey. In B. W. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research and practice* (4th ed., pp. 81–102). New York, NY: Routledge.
- Holland, J. L. (1966). The psychology of vocational choice: A theory of personality types and model environments. Waltham, MA: Blaisdel.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. Odessa, FL: Psychological Assessment Resources.
- International Association for Educational and Vocational Guidance. (2013). *IAEVG communiqué* on social justice in educational and career guidance and counselling. Retrieved from http://www.ncda.org/aws/NCDA/asset_manager/get_file/71143?ver=146
- Jadidian, A., & Duffy, R. D. (2012). Work volition, career decision self-efficacy, and academic satisfaction: An examination of mediators and moderators. *Journal of Career Assessment*, 20, 154–165. doi:10.1177/1069072711420851
- Katz, M. (1973). The name and nature of vocational guidance. In H. Borow (Ed.), *Career guidance for a new age*. Boston, MA: Houghton-Mifflin.
- Konrad, A. M., Ritchie, J. E. Jr., Lieb, P., & Corrigall, E. (2000). Sex differences and similarities in job attribute preferences: A meta-analysis. *Psychological Bulletin*, *126*, 593–641. doi:10.1037/0033-2909.126.4.593

- Krieshok, T. S. (1998). An anti-introspectivist view of career decision making. *The Career Development Quarterly*, 46, 210–229. doi:10.1002/j.2161-0045.1998.tb00697.x
- Krieshok, T. S. (2001). How the decision-making literature might inform career center practice. *Journal of Career Development*, *27*, 207–216. doi:10.1023/A:1007839110404
- Krieshok, T. S., Black, M. D., & McKay, R. A. (2009). Career decision making: The limits of rationality and the abundance of non-conscious processes. *Journal of Vocational Behavior*, 75, 275–290. doi:10.1016/j.jvb.2009.04.006
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79–122. doi:10.1037/0022-0167.33.3.265
- Leong, F. T., & Flores, L. Y. (2013). Multicultural perspectives in vocational psychology. In B. W. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research and practice* (4th ed., pp. 53–80). New York, NY: Routledge.
- Madsen, B. (1986). Occupational guidance and social change. *International Journal for the Advancement of Counselling*, *9*, 97–109. doi:10.1007/BF00116438
- Maree, J. G. (2013). Counselling for career construction: Connecting life themes to construct life portraits: Turning pain into hope. Rotterdam, The Netherlands: Sense Publisher.
- Marx, D. M., & Stapel, D. A. (2006b). Understanding stereotype lift: On the role of the social self. *Social Cognition*, 24, 776–792. doi:10.1521/soco.2006.24.6.776
- McGlone, M. S., & Aronson, J. (2006). Stereotype threat, identity salience, and spatial reasoning. *Journal of Applied Developmental Psychology*, 27, 486–493. doi:10.1016/j.appdev.2006.06.003
- McIntyre, R. B., Paulson, R. M., & Lord, C. G. (2003). Alleviating women's mathematics stereotype threat through salience of group achievements. *Journal of Experimental Social Psychology*, 39, 83–90. doi:10.1016/S0022-1031(02)00513-9
- Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38, 30–38. doi:10.1037/0022-0167.38.1.30
- O'Brien, K. M. (2001). The legacy of Parsons: Career counselors and vocational psychologists as agents of social change. *The Career Development Quarterly*, *50*, 66–76.
- Osipow, S. H., & Fitzgerald, L. F. (1996). *Theories of career development* (4th ed.). Boston, MA: Allyn & Bacon.
- Parsons, F. (1909). Choosing a vocation. Boston, MA: Houghton-Mifflin.
- Piketty, T. (2014). Capital in the 21st century. Cambridge, CA: Harvard University Press.
- Pope, M., Briddick, W. C., & Wilson, F. (2013). The historical importance of social justice in the founding of the national career development association. *The Career Development Quarterly*, *61*, 368–373. doi:10.1002/j.2161-0045.2013.00063.x
- Porfeli, E. J. (2009). Hugo Münsterberg and the origins of vocational guidance. *The Career Development Quarterly*, 57, 225–236.
- Prediger, D. J. (1999). Integrating interests and abilities for career exploration: General considerations. In M. L. Savickas & A. R. Spokane (Eds.), *Vocational interests: Meaning, measurement, and counseling use* (pp. 295–325). Palo Alto, CA: Davies-Black.
- Pryor, R. G. L. (1982). Values, preferences, needs, work ethics, and orientation to work: Towards a conceptual and empirical integration. *Journal of Vocational Behavior*, 20, 40–52. doi:10.1016/0001-8791(82)90062-8
- Quimby, J. L., & O'Brien, K. M. (2004). Predictors of student and career decision-making self-efficacy among nontraditional college women. *The Career Development Quarterly*, *52*, 323–339.
- Roe, A. (1956). The psychology of occupations. New York, NY: Wiley.
- Rosenthal, H. E. S., Crisp, R. J., & Suen, M. W. (2007). Improving performance expectancies in stereotypic domains: Task relevance and the reduction of stereotype threat. *European Journal of Social Psychology*, 37, 586–597. doi:10.1002/ejsp.379

- Rottinghaus, P. J., & Miller, A. D. (2013). Convergence of personality frameworks within vocational psychology. In B. W. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research and practice* (4th ed., pp. 105–132). New York, NY: Routledge.
- Rottinghaus, P. J., Larson, L. M., & Borgen, F. H. (2003). The relation of self-efficacy and interests: A meta-analysis of 60 samples. *Journal of Vocational Behavior*, 62, 221–236. doi:10.1016/S0001-8791(02)00039-8
- Saks, R. E., & Shore, S. H. (2005). Risk and career choice. *Advances in Economic Analysis & Policy*, 5(1), 1–43. doi:10.2202/1538-0637.1414
- Sandler, M. E. (2000). Career decision-making self-efficacy, perceived stress, and an integrated model of student persistence: A structural model of finances, attitudes, behavior, and career development. *Research in Higher Education*, *41*, 537–580. doi:10.1023/A:1007032525530
- Savickas, M. L. (2009). Pioneers of the vocational guidance movement: A centennial celebration. *The Career Development Quarterly*, *57*, 194–198. doi:10.1002/j.2161-0045.2009.tb00104.x
- Savickas, M. L. (2011). Career counseling. Washington, DC: American Psychological Association.
- Sharf, R. S. (2013). Advances in theories of career development. In B. W. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research and practice* (4th ed., pp. 3–32). New York, NY: Routledge.
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, *35*, 4–28. doi:10.1006/jesp.1998.1373
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work related performance: A meta-analysis. *Psychological Bulletin*, *124*, 240–261. doi:10.1037/0033-2909.124.2.240
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797–811. doi:10.1037/0022-3514.69.5.797
- Stone, J. (2002). Battling doubt by avoiding practice: The effects of stereotype threat on self-handicapping in white athletes. *Personality and Social Psychology Bulletin*, 28, 1667–1678. doi:10.1177/014616702237648
- Taylor, C. (1989). Sources of the self: The making of the modern identity. Cambridge, MA: Harvard University Press.
- Tracey, T. J., & Hopkins, N. (2001). Correspondence of interests and abilities with occupational choice. *Journal of Counseling Psychology*, 48, 178–190. doi:10.1037/0022-0167.48.2.178
- Vilhjálmsdóttir, G., & Arnkelsson, G. B. (2013). Social aspects of career choice from the perspective of habitus theory. *Journal of Vocational Behavior*, 83, 581–590. doi:10.1016/j.jvb.2013.08.002
- Visser, B., Ashton, M., & Vernon, P. (2008). What makes you think you're so smart: Measured abilities, personality, and sex differences in relation to self-estimates of multiple intelligences. *Journal of Individual Differences*, 29, 35–44. doi:10.1027/1614-0001.29.1.35
- Watts, A. G. (1996). Socio-political ideologies in guidance. In A. G. Watts, B. Law, J. Killeen, J. M. Kidd, & R. Hawthorn (Eds.), *Rethinking careers education and guidance: Theory, policy, and practice* (pp. 351–365). London, UK: Routledge.

Nimrod Levin
The Edmond and Lily Safra Center for Brain Sciences
and the Department of Psychology
Hebrew University of Jerusalem

Itamar Gati Department of Psychology Hebrew University of Jerusalem