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Affect as a predictor of occupational engagement, career adaptability and career decidedness

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Background: Cognition and reason have received substantial and inordinate attention relative to emotion and intuition in understanding and intervening to promote vocational behaviour and career development.

Objectives: Towards redressing this situation, the present study examined positive affect (PA) and negative affect (NA) as proxies for emotion with regard to their relationship with three career decision-making (CDM) variables.

Method: A total of 250 university students (183 women, 65 men; mean age = 23 years; 88% Caucasian) responded to measures of affect, occupational engagement, career adaptability and career decidedness.

Results: The study results supported hypothesised positive interrelationships amongst the three CDM variables. As hypothesised, regression analysis indicated that PA positively predicted the three CDM variables. Contrary to expectations, NA also positively predicted occupational engagement and career decidedness, albeit to a lesser degree.

Conclusion: The present results indicate that emotions, both positive and negative, seem to be linked to important vocational processes and should be considered in career theory and intervention.

Keywords: career decision-making; career adaptability; occupational engagement; career decidedness; positive and negative affectivity.

Introduction

Various calls have been made for studies of emotional and intuitive processes in career development and decision-making (e.g. Hartung, 2011; Hartung & Blustein, 2002; Kidd, 1998, 2004; Krieshok, Black, & McKay, 2009). Such calls, dating back to the work of Parsons (1909), recognise that cognition and rationality have received substantially greater attention relative to emotion in the career literature (Hartung & Blustein, 2002; Krieshok et al., 2009; Mitchell, Levin, & Krumboltz, 1999). This fact exists despite the integral link between cognition and emotion generally in human behaviour and development (eds. Dalgleish & Power, 1999, 2008).

The prizing of reason over emotion in career decision-making traces its roots to ancient and modern philosophy (Solomon, 2008) and relegates emotion and subjectivity to lesser roles in human decision-making and behaviour (Cacioppo & Gardner, 1999). Conventional wisdom and scientific inquiry suggest that emotion must be dampened and cognition amplified when it comes to making good and satisfying decisions. The belief is that higher-order processes such as thought, rationality and decision-making must not be 'hijacked by the pirates of emotion' (Cacioppo & Gardner, 1999, p. 194) that can compromise objectivity and adaptive behaviour. Such a belief likely helps relegate emotion to a lesser role in vocational behaviour and particularly in career decision-making (CDM) processes, wherein reason likely gets favoured over emotion. Yet a significant body of conceptual and empirical work supports the role of emotion in CDM (e.g. Hartung & Blustein, 2002; Hartung, 2011; Kidd, 1998, 2004; Krieshok et al., 2009; Porfeli, Wang, & Hartung, 2008; Rottinghaus, Jenkins, & Jantzer, 2009). Therefore, the present study sought to examine positive and negative emotions as predictors of three CDM variables: career decidedness, career adaptability and occupational engagement. These outcome variables were chosen because of their prevalence in the CDM literature and fundamental roles in the career choice and development process.

Positive and negative emotions

Generalised emotional expression comprises two independent dimensions: positive affect (PA) and negative affect (NA) (Watson, Clark, & Tellegen, 1988). Positive affect is a generalised form of positive emotion reflecting enthusiasm, activity and extraversion (Watson & Clark, 1997). Negative affect is a general form of negative emotion indicated by distress and displeasure and associated with anxiety, depression and neuroticism (Clark & Watson, 1991; Silvia & Warburton, 2006). Personality research and theory suggest that individuals develop trait affect leading them to respond to situations with typically more PA or more NA (e.g. Bagozzi, 1993; Cropanzano, James, & Konovsky, 1993; Thompson, 2007; Wright & Staw, 1999).

Emotion in career studies

Theoretical (e.g. Hartung, 2011; Young & Valach, 1996) and empirical works (e.g. Brown, George-Curran, & Smith, 2003; Porfeli et al., 2008; Rottinghaus et al., 2009; Young, Paseluikho, &Valach, 1997) have gradually offered more concerted responses to calls made for considering emotion in career theory and intervention. For example, Rottinghaus et al. (2009) found evidence for career-decided college students reporting significantly less depressed moods than undecided students. While neither PA nor NA related significantly to career choice status, PA predicted significant variance in self-efficacy consistent with prior research. Some research particularly considers the role of emotion in CDM (Bubany, Krieshok, Black, & McKay, 2008; Krieshok et al., 2009; Porfeli et al., 2008; Saka, Gati, & Kelly, 2008) and the affective component of subjective well-being (Uthayakumar, Schimmack, Hartung, & Rogers, 2010), involving a hedonic balance between positive and negative emotions that complements a cognitive dimension entailing global life satisfaction judgements. In much of this research, investigators have primarily used scales that measure affect as an indicator of emotions from individual differences and social-cognitive perspectives. More long-standing in the literature is attention to job satisfaction (Eggerth, 2015; Fritzsche & Parrish, 2005). When emotion has been explored, it is typically from a work adjustment perspective, focusing on the emotions of workers in occupations. The present study aimed to redirect attention to the point of CDM and thereby examine emotion from the perspective of individuals facing career transitions and choices. To the authors' knowledge, no other studies have specifically examined emotion with regard to the variables of career decidedness, career adaptability and occupational engagement as examined in the present study.

Emotion and career decision-making

Contemporary work in vocational psychology increasingly recognises the role of emotional and non-conscious factors in CDM. For example, Krieshok et al. (2009) advanced adaptive decision-making as a trilateral process involving reason, intuition and occupational engagement. In this model, the adaptive decision-maker draws upon conscious rational thought, nonconscious intuitive emotion and exploratory behaviours and enrichment experiences that promote optimal engagement in the world generally and in the world of work specifically. Such engagement has been found to promote effective CDM and career success. Similarly, other theory and research advances career adaptability (Savickas, 2011; Savickas et al., 2009) as a construct central to effective CDM and career development.

Like adaptive decision-making, career adaptability involves developing and possessing the resources to willingly and ably make changes in self and situation to effectively navigate work and career (Savickas, 2013). Long-standing amongst these constructs of adaptivity and adaptability in the CDM literature is career decidedness. A principal life task for emerging adults involves deciding about career goals. Such decidedness has been linked to outcomes such as lower levels of depression (Rottinghaus et al., 2009) and increased subjective well-being (Uthayakumar et al., 2010). Research suggests that being decided about career goals has important vocational and overall mental health outcomes (Paul & Moser, 2009).

Purpose of the study

In the present study, we examined engagement, adaptability and decidedness in terms of their relationships to each other and to PA and NA as proxies for emotion as a factor in CDM. Based on prior studies implicating a role of emotion in CDM, we expected that affective states would be related to important CDM processes of occupational engagement, career adapatability and career decidedness. Occupational engagement refers to the level of involvement in exploration and enrichment activities that contribute to an individual's fund of information and experience of the world that may contribute to making both imminent and future career decisions (Krieshok et al., 2009). Career adaptability means the extent of an individual's resources for actively managing current and anticipated career-related tasks (e.g. exploring occupations), transitions (e.g. from school to work) and work traumas (e.g. job loss). Career decidedness denotes the extent to which an individual is settled on his or her career choice or experiences indecision. Using these three constructs, along with positive and negative affect as proxies for emotion, the present study's aim was to test two hypotheses. Firstly, as variables conceptually related to effective CDM, it was expected that occupational engagement, career adaptability and career decidedness relate positively to each other. Secondly, it was expected that PA positively predicts and NA negatively predicts occupational engagement, career adaptability and career decidedness.

Method

Participants

Participants were students recruited from two educational institutions in the Midwest United States of America. One institution was a large public university, including its branch campuses. The other institution was a small private college.

A total of 340 students volunteered to participate in the study. Of these, 90 students provided incomplete data and thus were not included in the analyses. Therefore, the final sample consisted of 250 participants. Most participants (n = 197) were students at the public university, and the remainder (n = 53) attended the private college. Combined, the total sample comprised 183 women and 65 men, with two participants not indicating their gender. The age of the participants ranged from 17 to 58 years (mean [M] = 23 years, standard deviation [SD] = 7.05). With regard to ethnicity, 221 were European-American, 11 were African-American, three were Asian-American, three were Hispanic, 11 identified themselves as 'other' and one did not report ethnicity. In terms of college rank, 45 were freshmen, 50 were sophomores, 67 were juniors and 88 reported that they were in their senior year of college. All participants were undergraduate students enrolled in both universities, which served as the sole criterion for eligibility to be included in the study. No inclusion or exclusion criteria were based on age, gender or racial or ethnic origin. No participants characterised as vulnerable were included in the study.

Measures

Affect

The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used to assess participants' affect. The PANAS consists of 10 positive and 10 negative emotional adjectives. For example, PA items include adjectives such as 'excited', 'attentive' and 'proud', whereas NA items include adjectives such as 'upset', 'guilty' and 'hostile'. Respondents are asked to rate 'how they felt the past week' with regard to the adjectives on a Likert scale ranging from 1 (slightly or not at all) to 5 (extremely). The Cronbach's αfor the current sample was 0.92 for the PA scale and 0.85 for the NA scale. The Positive and Negative Affect Schedule has demonstrated construct validity evidence (Watson et al., 1988).

Career adaptability

Career adaptability was measured with the Career Adapt-Abilities Scale (CAAS; Savickas & Porfelli, 2012). The CAAS contains 24 items and uses a five-point Likert response format by which respondents rate the extent to which they have developed various abilities, ranging from 1 (not strong) to 5 (strongest). The CAAS items measure the four dimensions of career adaptability with six items per dimension: concern (ability to plan an occupational future), control (ability to make career decisions), curiosity (ability to explore occupational options) and confidence (ability to deal with barriers to CDM). A sample item for each dimension includes, respectively, 'thinking about what my future will be like', 'making decisions by myself', 'investigating options before making a choice', and 'performing tasks efficiently'. Only the total scale score was used as an index of career adaptability in the present study. Internal consistency reliability estimate (alpha) for the total scale in the present study was 0.92. The CAAS has demonstrated construct validity evidence (Öncel, 2014; Savickas & Porfeli, 2012).

Career decidedness

The level of career decidedness was measured by scores on the Decisional Process Inventory (DPI; Hartung, 1995; Hartung & Marco, 1998; Marco, Hartung, Newman, & Parr, 2003). The DPI contains 25 items designed to measure the level of career decidedness defined in terms of progress and problems in moving through the Gestalt Career Decision Making Cycle (CDMC; Hartung, 1995; Hartung & Marco, 1998). Respondents rate all DPI items on a five-point scale with two anchors (e.g. 'As far as being able to make a career decision, I am: unprepared 1 2 3 4 5 prepared'). Exploratory factor analysis (Hartung & Marco, 1998) indicated the DPI assesses three latent dimensions of the Gestalt CDMC: CDM orientation (CDO; 11 items dealing with readiness to make a career choice), CDM closure (CDC; seven items dealing with action to make a career decision) and CDM resistance (CDR; seven items dealing with thwarting the decision-making process). In the present study, scores on items 1–18 (CDO and CDC) were summed and added to the reverse-scored sum of items 19–25 (CDR) for a DPI total score, which could range from 25 to 125. Higher scores indicate higher levels of career decidedness. Prior research (Hartung & Marco, 1998; Marco et al., 2003) suggests that the DPI demonstrates good convergent validity with other established measures of career decision status.

Occupational engagement

The Occupational Engagement Scale – Student (OES-S; Cox, Krieshok, Bjornsen, & Zumbo, 2014) was used to measure participants' engagement in experiential activities to enrich their knowledge about self and occupations. The OES contains 15 items and uses a Likert response format ranging from 1 (not at all like me) to 5 (very much like me). Sample items include statements such as 'I am actively involved in groups or organisations', 'I pursue opportunities in life because I just know they will come in handy' and 'I have contact with people working in fields I find interesting'. Internal reliability estimate (alpha) for the scale was 0.89. The OES-S has demonstrated criterion-related validity evidence (Cox, 2008; Cox et al., 2014; McKay, 2008).

Procedure

After obtaining requisite institutional review board approvals, web-based surveys containing all measures and a brief demographic questionnaire were e-mailed to a total of more than 2000 undergraduate students at the two institutions involved in the present study. Enrolment was sought for a minimum of 150 respondents in order to meet the criteria for data analysis. Follow-up e-mails were sent 7 and 14 days after the initial invitation letter. The follow-up e-mails reiterated the invitation to participate in the study, the purpose of the study and what their participation would involve. Respondents who chose to participate in the study logged on to a secure website that contained the survey on a computer of their choice. There, they completed the informed consent document by clicking a box and then responded to

the survey, which required approximately 30 min of their time. Participants were informed that the survey would only be accessible for a 3-week period.

Ethical considerations

This article followed all ethical standards for a research without direct contact with human or animal subjects.

Results

Table 1 lists descriptive statistics for all variables examined in the present study. It was first hypothesised that the three CDM variables of occupational engagement, career adaptability and career decidedness relate positively to each other. As shown in Table 1, the results indicated positive correlations amongst the three variables: with $r = 0.37$ ($p < 0.01$) between career decidedness and occupational engagement, $r = 0.43$ ($p < 0.01$) between career decidedness and career adaptability and $r = 0.46$ ($p < 0.01$) between career adaptability and occupational engagement. These results support hypothesis 1.

The second hypothesis indicated that PA positively relates and NA negatively relates to each one of the CDM variables. As shown in Table 1, the results indicated that PA is moderately related to career adaptability ($r = 0.45$, $p < 0.01$), career decidedness ($r = 0.36$, $p < 0.01$) and occupational engagement ($r = 0.46$, $p < 0.01$) in the expected direction. To a lesser degree, NA related significantly to the career variables of occupational engagement ($r = 0.13$, $p < 0.05$) and decidedness ($r = 0.20$, $p < 0.01$). However, these relationships between NA and the CDM variables were also positive and not in the expected direction. Negative affect was not significantly related to career adaptability ($r = 0.09$, ns). These results lend partial support to hypothesis 2.

To further test the hypothesis that PA would positively predict occupational engagement, career adaptability and career decidedness, separate linear regressions were conducted. These analyses provided another way of examining the relationships amongst the variables and indicated amounts of variance that could be accounted for by them. As hypothesised, PA predicted occupational engagement ($\beta = 0.46$, $p < 0.001$), career adaptability ($\beta = 0.45$, $p < 0.001$) and career decidedness ($\beta = 0.36$, $p < 0.001$). Positive affect accounted for 20%, 21% and 13% of the variance, respectively. Contrary to the hypothesis, NA positively predicted occupational engagement ($\beta = 0.13$, $p < 0.05$) and career decidedness ($\beta = 0.20$, $p < 0.01$). Negative affect accounted for 4% and 2% of the variance, respectively. Negative affect did not predict career adaptability ($\beta = 0.09$, *ns*). Even though the results run counter to what was anticipated, it appears that NA has a positive, though rather negligible, influence on occupational engagement and career decidedness.

TABLE 1: Means, standard deviations and correlations of study variables.

Variable	M	SD	1	2	3	4	5
1. PA	33.7	9.22	(0.92)	-	-	-	-
2. NA	39.6	7.64	0.09	(0.85)	-	-	-
3. CAAS	91.3	14.55	0.45**	0.09	(0.92)	-	-
4. DPI	85.9	15.57	0.36**	0.20**	0.43**	(0.89)	-
5. OES-S	47.3	11.27	0.46**	0.13*	0.46**	0.37**	(0.89)

PA, positive affect; NA, negative affect; CAAS, Career Adapt-Abilities Scale; DPI, Decisional Process Inventory; OES-S, Occupational Engagement Scale – Student.

*, $p < 0.05$; **, $p < 0.01$. Reliabilities for scales on diagonals.

Discussion

Recent years have witnessed increased calls for studies of emotion and intuition in career development and decision-making (e.g. Hartung, 2011; Hartung & Blustein, 2002; Kidd, 2004; Krieshok et al., 2009). In response, conceptual work and some empirical research continue to make forays into understanding the role of emotion in vocational behaviour. The present study aimed to advance this line of inquiry by examining positive and negative emotions as predictors of three prominent and conceptually consistent CDM variables of occupational engagement, career adaptability and career decidedness amongst a sample of college students. These three variables were chosen for the study in relation to emotion because of their overlapping conceptual relationships and their prominent roles in CDM.

Consistent with the first hypothesis, the three CDM variables all proved positively and significantly interrelated. The present data indicate that individuals reporting higher levels of occupational engagement likewise report higher levels of career adaptability and career decidedness. Thus, the present findings support empirically obvious conceptual links amongst engaged decision-making, ability to adapt by making changes in self and situation to promote one's own career development and feeling more decided about one's career choice. Individuals more involved in career exploration and enrichment activities to increase self-knowledge and world-of-work knowledge also evinced more resources for coping with current and anticipated career-related tasks and transitions as well as more closure about their career choice. These results support prior studies indicating links between emotion and CDM processes (e.g. Porfeli et al., 2008; Rottinghaus et al., 2009).

Consistent with the second hypothesis, the present data indicated that positive affect. predicts greater levels of occupational engagement, career adaptability and career decidedness. Thus, individuals who reported more positive emotions also reported more engagement in activities to explore self and occupations, ability to plan, decide, explore and deal with barriers to their career choices and decisions, and also feel more settled on their career decisions. Inconsistent with expectations and contrary to the second hypothesis, negative affectivity also positively predicted occupational engagement and career decidedness. It could be that negative emotions assessed by the PANAS, such as feeling upset, distressed and afraid, could serve as drivers of exploratory behaviour and also lead to more decidedness about career choices. Perhaps negative emotions serve as a motivating force in the case of occupational engagement,

leading to action to quell such feelings. Negative emotions may, in effect, contribute to a state of tension about making a career decision that individuals seek to resolve through action. This interpretation seems consistent with the hedonic model of emotion that views emotions as having intrinsic motivational properties (Hansell, 1989). Future research, perhaps with mixed methods designs that include qualitative components, could further investigate this possibility and also examine individuals' thought processes and experiences in responding to the affectivity and CDM measures.

From a practical standpoint, the present data further support attending to emotion in career assessment and counselling (Hartung, 2011; Kidd, 2004). Emotions may not so much represent barriers to vocational development. Rather, they may benefit the motivational process of goal-striving whereby people seek to move from a place of tension (experienced anger, fear, guilt, sadness, inferiority, confusion and passivity) to a place of intention (purposefulness and goal-directedness) and ultimately to a place of retention (self-reintegration and new meaning). Perhaps individuals use emotion to balance personal needs and environmental demands in a homeostatic process of organismic self-regulation. If so, it may be that, as Damasio (1999) stated:

> At their most basic, emotions are part of homeostatic regulation and are poised to avoid the loss of integrity … emotions of all shades eventually help connect homeostatic regulation and survival 'values' to numerous events and objects in our autobiographical experiences. (pp. 54–55)

The present study is certainly limited by a rather circumscribed sample and problems such as social desirability effects that are inherent in using self-report measures. Notwithstanding these limitations, the present study offers some needed data about links between emotion and key CDM processes.

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Competing interests

The authors have declared that no competing interests exist.

Authors' contributions

Each author contributed towards the development, design and implementation of the study. P.J.H. principally made contribution to the conceptual background of the study. J.M.T. was mainly involved in data collection, and B.J.T. principally led the data analysis. All authors contributed to the final manuscript to be published.

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Data availability

Data used in this study are available from the first author upon reasonable request.

Disclaimer

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References

Bagozzi, R.P. (1993). An examination of the psychometric properties of measures of negative affect in the PANAS-X scales. *Journal of Personality and Social Psychology, 65*(4), 836–851. https://doi.org/10.1037/0022-3514.65.4.836

Bubany, S.T., Krieshok, T.S., Black, M.D., & McKay, R.A. (2008). College students' perspectives on their career decision making. *Journal of CareerAssessment, 16*(2), 177–197. https://doi.org/10.1177/1069072707313189

Cacioppo, J.T., & Gardner, W.L. (1999). Emotion. *Annual Review of Psychology, 50*, 191–214. https://doi.org/10.1146/annurev.psych.50.1.191

Clark, L.A., & Watson, D. (1991). Tripartite model of anxiety and depression: Psychometric evidence and taxonomic implications. *Special Issue: Diagnoses, dimensions, and DSM-IV: The Science of Classification, 100*(3), 316–336. https://doi.org/10.1037/0021-843X.100.3.316

Cox, D.W. (2008). *Bringing vocational psychology into the 21st century: The operationalization of occupational engagement and initial validation of the occupational engagement scale for college students*. Unpublished doctoral dissertation. Lawrence, KS: University of Kansas.

Cox, D.W., Krieshok, T.S., Bjornsen, A.L., & Zumbo, B.D. (2014). Occupational engagement scale – Student: Development and initial validation. *Journal of Career Assessment, 23*(1), 1–10. https://doi.org/10.1177/1069072714523090

Cropanzano, R., James, K., & Konovsky, M.A. (1993). Dispositional affectivity as a predictor of work attitudes and job performance. *Journal of Organizational Behavior, 14*(6), 595–606. https://doi.org/10.1002/job.4030140609

Dalgleish, T., & Power, M.L. (Eds.). (1999). *Handbook of emotion and cognition.* West Sussex: John Wiley.

Dalgleish, T., & Power, M.L. (Eds.). (2008). *Cognition and emotion: From order to disorder* (2nd ed.). New York, NY: Psychology Press.

Damasio, A. (1999). *The feeling of what happens*. New York, NY: Harcourt.

Eggerth, D.E. (2015). Job satisfaction, job performance, and success. In P.J. Hartung, M.L. Savickas, & W.B. Walsh. (Eds.), *APA handbook of career intervention: Applications* (Vol. 2, pp. 453–464). Washington, DC: APA Books.

Fritzsche, B.A., & Parrish, T.J. (2005). Theories and research on job satisfaction. In S.D. Brown & R.W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 180–202). New York, NY: John Wiley & Sons.

Hansell, J.H. (1989). Theories of emotion and motivation: A behavioral and conceptual review. *Genetic, Social, and General Psychology Monographs, 4*, 429–448.

Hartung, P.J. (1995). Developing a theory-based measure of career decision making: The decisional process inventory. *Journal of Career Assessment, 3*(4), 299–313. https://doi.org/10.1177/106907279500300404

Hartung, P.J. (2011). Barrier or benefit? Emotion in life-career design. *Journal of Career Assessment, 19*(3), 296–305. https://doi.org/10.1177/1069072710395536

Hartung, P.J., & Blustein, D.L. (2002). Reason, intuition, and social justice: Elaborating on Parsons' career decision-making model. *Journal of Counseling and Development, 80*(1), 41–47. https://doi.org/10.1002/j.1556-6678.2002.tb00164.x

Hartung, P.J., & Marco, C.D. (1998). Refinement and further validation of the decisional process inventory. *Journal of Career Assessment, 6*(2), 147–162. https://doi.org/10.1177/106907279800600203

Kidd, J.M. (1998). Emotion: An absent presence in career theory. *Journal of Vocational Behavior, 52*(3), 275–288. https://doi.org/10.1006/jvbe.1997.1629

Kidd, J.M. (2004). Emotion in career contexts: Challenges for theory and research. *Journal of Vocational Behavior, 64*(3), 441–454. https://doi.org/10.1016/j.jvb.2003.12.009

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*(3), 275–290. https://doi.org/10.1016/j.jvb.2009.04.006

Marco, C.D., Hartung, P.J., Newman, I., & Parr, P. (2003). Validity of the decisional process inventory. *Journal of Vocational Behavior, 63*(1), 1–19. https://doi.org/10.1016/S0001-8791(02)00018-0

McKay, R.A. (2008). *The occupational engagement scale for creative students: Initial validation and development*. Unpublished doctoral dissertation. Lawrence, KS: University of Kansas.

Mitchell, K.E., Levin, A.S., & Krumboltz, J.D. (1999). Planned happenstance: Constructing unexpected career opportunities. *Journal of Counseling and Development, 77*(2), 115–124. https://doi.org/10.1002/j.1556-6676.1999.tb02431.x

Öncel, L. (2014). Career adapt-abilities scale: Convergent validity of subscale scores. *Journal of Vocational Behavior, 85*(1), 13–17. https://doi.org/10.1016/j.jvb.2014.03.006

Parsons, F. (1909). *Choosing a vocation*. Boston, MA: Houghton-Mifflin.

Paul, K.I., & Moser, K. (2009). Unemployment impairs mental health: Meta-analyses. *Journal of Vocational Behavior, 74*(3), 264–282. https://doi.org/10.1016/j.jvb.2009.01.001

Porfeli, E.J., Wang, C., & Hartung, P.J. (2008). Family transmission of work affectivity and experiences to children. *Journal of Vocational Behavior, 73*(2), 278–286. https://doi.org/10.1016/j.jvb.2008.06.001

Rottinghaus, P.J., Jenkins, N., & Jantzer, A.M. (2009). Relation of depression and affectivity to career decision status and self-efficacy in college students. *Journal of Career Assessment, 17*(3), 271–285. https://doi.org/10.1177/1069072708330463

Saka, N., Gati, I., & Kelly, K. (2008). Emotional and personality-related aspects of career decision-making difficulties. *Journal of Career Assessment, 16*(4), 403–424. https://doi.org/10.1177/1069072708318900

Savickas, M.L. (2011). The self in vocational psychology: Object, subject, and project. In P.J. Hartung & L.M. Subich (Eds.), *Developing self in work and career: Concepts, cases, and contexts* (pp. 17–33). Washington, DC: APA Books, Inc.

Savickas, M.L. (2013). The theory and practice of career construction. In S. Brown & R. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 147–183). New York, NY: John Wiley.

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

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

Silvia, P.J., & Warburton, J.B. (2006). Positive and negative affect: Bridging states and traits. In J.C. Thomas, D.L. Segal, & M. Hersen (Eds.), *Comprehensive handbook of personality and psychopathology: Personality and everyday functioning* (Vol. 1, pp. 268–284). Hoboken, NJ: John Wiley & Sons.

Solomon, R.C. (2008). The philosophy of emotions. In M. Lewis, J.M. Haviland-Jones, & L.F. Barrett (Eds.), *Handbook of emotions* (3rd ed., pp. 3–16). New York, NY: The Guilford Press.

Thompson, E.R. (2007). Development and validation of an internationally reliable short-form of the positive and negative affect schedule (PANAS). *Journal of Cross-Cultural Psychology, 38*(2), 227–242. https://doi.org/10.1177/0022022106297301

Uthayakumar, R., Schimmak, U., Hartung, P.J., & Rogers, J.R. (2010). Career decidedness as a predictor of subjective well-being. *Journal of Vocational Behavior, 77*(2), 196–204. https://doi.org/10.1016/j.jvb.2010.07.002

Watson, D., & Clark, L.A. (1997). Extraversion and its positive emotional core. In R. Hogan, J.A. Johnson, & S.R. Briggs (Eds.), *Handbook of personality psychology* (pp. 767–793), San Diego, CA, USA: Academic Press.

Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063–1070. https://doi.org/10.1037/0022-3514.54.6.1063

Wright, T.A., & Staw, B.M. (1999). Affect and favorable work outcomes: Two longitudinal tests of the happy-productive worker thesis. *Journal of Organizational Behavior, 20*(1), 1–23. https://doi.org/10.1002/(SICI)1099-1379(199901)20:1<1::AID-JOB885>3.0.CO;2-W

Young, R.A., & Valach, L. (1996). Interpretation and action in career counseling. In M.L. Savickas & W.B. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 361–375). Palo Alto, CA: Davies-Black.

Young, R. A., Paseluikho, M. A., & Valach, L. (1997). The role of emotion in the construction of career in parent-adolescent conversations. *Journal of Counseling and Development, 76*(1), 36–44. https://doi.org/10.1002/j.1556-6676.1997.tb02374.x