"Examining the impact of emotional intelligence on career adaptability: A two-wave cross-lagged study"

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ABSTRACT

Developing career meta-competencies has become crucial to cope with the unpredictability of today's global work context, both at the emotional and cognitive levels. It is often argued that individuals rely on both emotional intelligence (Di Fabio & Kenny, 2014) and career adapt-abilities (Savickas, 2005) to respond to career changes. Though the link between emotional intelligence and career adaptability has been previously demonstrated, no longitudinal evidence has been provided yet. The present study investigates the impact of emotional intelligence on career adaptability in a two-wave longitudinal study among a sample of adult learners (N#=#282 for Time 1; N#=#208 for Time 2). Using cross-lagged panel analysis, our results supported the causal relationship from emotional intelligence to career adaptability. Emotional intelligence at Time 1 predicted career adaptability at Time 2 while controlling for prior levels of career adaptability and socio-demographic variables. Neither a reversed causality model nor a reciprocal causality model provided a better fit to the data. While this study brings additional evidence for the career construction model and emphasizes the role of two career meta-competencies in crafting sustainable careers, it also raises the importance to consider career development in the context of adult learning.

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Examining the impact of emotional intelligence on career adaptability: a two-wave cross-lagged study

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3   **Abstract**

4   Developing career meta-competencies has become crucial to cope with the unpredictability of

5   today's global work context, both at the emotional and cognitive levels. It is often argued that

6   individuals rely on both emotional intelligence (Di Fabio & Kenny, 2014) and career adapt-

7   abilities (Savickas, 2005) to respond to career changes. Though the link between emotional

8   intelligence and career adaptability has been previously demonstrated, no longitudinal

9   evidence has been provided yet. The present study investigates the impact of emotional

10   intelligence on career adaptability in a two-wave longitudinal study among a sample of adult

11   learners (N = 282 for Time 1; N = 208 for Time 2). Using cross-lagged panel analysis, our

12   results supported the causal relationship from emotional intelligence to career adaptability.

13   Emotional intelligence at Time 1 predicted career adaptability at Time 2 while controlling for

14   prior levels of career adaptability and socio-demographic variables. Neither a reversed

15   causality model nor a reciprocal causality model provided a better fit to the data. While this

16   study brings additional evidence for the career construction model and emphasizes the role of

17   two career meta-competencies in crafting sustainable careers, it also raises the importance to

18   consider career development in the context of adult learning.

19   Keywords: emotional intelligence, career adaptability, longitudinal study, adult learning

20   **1. Introduction**

21   Individuals now navigate in a more demanding context of work as they face unfamiliar and

22   unpredictable situations and constraints, as well as numerous career transitions and job

23   uncertainty during their careers (Biemann, Zacher, & Feldman, 2012). Therefore, sustaining

24   individuals' abilities to deal with such constraints, as well as to cope with ongoing career

25   changes and transitions has become crucial. These abilities have been referred to as career

26   meta-competencies (Coetzee, 2014). Among them, two have particularly grasped researchers'

27   attention in recent years. On the one hand, understanding how individuals develop and make

28   use of self-regulatory resources to prepare for and cope with career and job transitions have

29   been at the heart of career construction theory (see, Johnston, 2018, for a review; Savickas,

30   2005). On the other hand, several researchers have highlighted how emotional intelligence

31   can help individuals in making career decisions, deal with major career events and make

32   emotional adjustments (Di Fabio & Kenny, 2014). This led scholars to stress the importance

33   of both emotional intelligence and career adaptability as important meta-competencies

34   helping individuals to effectively respond to career changes and craft sustainable careers

35   (Buyken, Klehe, Zikic, & van Vianen, 2015; Potgieter, 2014).

36   Building upon the career construction model (Savickas, 2005), some empirical studies have

37   documented the positive role of emotional intelligence on career adaptability. However, no

38   longitudinal evidence has been provided yet. This is unfortunate as the causal relationship

39   between these two meta-competencies has implications for the design of effective career

40   guidance practices. To approach this shortcoming, the objective of the present study was to

41   bring additional evidence for the causal hypothesis of emotional intelligence on career

42   adaptability in a two-wave longitudinal study among a sample of adult learners.

43   *1.1.   Emotional Intelligence*

44   Emotional intelligence refers to the individuals' ability to identify, understand, express,

45   manage, and use emotions (Mayer & Salovey, 1997; Petrides & Furnham, 2003). Above

46   strong evidence of its positive impact in health (Martins, Ramalho, & Morin, 2010), social

47   (Lopes et al., 2004), and work domains (Ashkanasy & Daus, 2005), emotional intelligence

48   has gained increasing popularity and is now considered as a key career resource (Di Fabio,

2

49   2012). The beneficial role of emotional intelligence in the realm of careers has been

50   empirically well documented with regard to career decision-making (Di Fabio, Palazzeschi,

51   Asulin-Peretz, & Gati, 2013; Di Fabio & Saklofske, 2014), career commitment (Brown,

52   George-Curran, & Smith, 2003), career success (de Haro García & Castejón Costa, 2014), and

53   employability (Hodzic, Ripoll, Lira, & Zenasni, 2015). These findings stem from the

54   hypothesis that high emotional intelligence is considered as self-regulatory resources related

55   to a better awareness, regulation and use of emotions in career-related thinking and actions

56   (Emmerling & Cherniss, 2003) and an important factor of adaptive emotional functioning. In

57   building their careers, individuals with high emotional intelligence might be better in planning

58   their professional goals and objectives, fitting in into different organizational cultures,

59   establishing and maintaining social relationships as well as anticipating the emotional

60   consequences of career tasks, changes, and transitions (Potgieter, 2014).

61   *1.2.   Career Adaptability*

62   Career adaptability refers to a set of psychosocial self-regulatory, transactional, and malleable

63   resources that enable individuals to prepare for, cope with, and manage career or job

64   transitions as well as career- or work-related issues (Savickas & Porfeli, 2012). A recent

65   meta-analysis (Rudolph, Lavigne, & Zacher, 2017) showed the positive effect of career

66   adaptability on a wide range of career-related outcomes such as job and career satisfaction

67   (Zacher, 2014; Zacher & Griffin, 2015), career identity (Negru-Subtirica, Pop, & Crocetti,

68   2015), job stress (Fiori, Bollmann, & Rossier, 2015), and employability (Udayar, Fiori,

69   Thalmayer, & Rossier, 2018), to cite a few. Career adaptability is considered as a set of

70   resources individuals may rely upon in times of uncertainty and career changes to proactively

71   plan their career, develop needed skills, engage in career exploration behaviors or mobilize

72   social capital when needed. For these reasons, career adaptability has been coined as a key

73 resource for sustainable careers as it helps individuals to proactively cope with career-related

74 tasks and foster their career development (Buyken et al., 2015).

75 Very few studies have investigated the impact of emotional intelligence on career adaptability

76 (Celik & Storme, 2017; Coetzee & Harry, 2014; Merino-Tejedor, Hontangas, & Petrides,

77 2018; Udayar et al., 2018). Building upon the career construction model (Savickas, 2005),

78 they argue that emotional intelligence provides individuals with a higher adaptive functioning

79 in a various number of situations and to major life events, fosters the development and use of

80 career adaptability and thus leads to a greater adaptive functioning in career-related issues and

81 challenges. However, these studies relied on cross-sectional designs and on samples of

82 university students (see, Coetzee & Harry, 2014, for an exception), limiting the ability to draw

83 causal conclusions. Longitudinal evidence is therefore necessary to further establish the

84 causal inferences of the career construction model.

85 *1.3.   The Present Study*

86 The objective of this study was to examine the causal relationship between emotional

87 intelligence and career adaptability using a two-wave cross-lagged panel design among a

88 sample of adult learners. We chose this sample for two main reasons. First, entering an

89 education program as an adult is, per se, a vocational transition, additionally involving the

90 management of the dual roles of worker and student (Fairchild, 2003). Second, beyond

91 learning outcomes, engaging in such programs is generally associated with career

92 development issues such as career change, professional development, and career advancement

93 (Vertongen, Bourgeois, Nils, De Viron, & Traversa, 2009). Focusing on adult learners raises

94 the importance of addressing career development issues in adult education, as they need to

95 rely on career meta-competencies in order to undertake the career and job objectives they

96 pursue.

97 Cross-lagged panel analysis is particularly relevant as it allows to test the direction and

98 strength of the link between emotional intelligence and career adaptability while controlling

99 for the prior levels of these two variables (Selig & Little, 2012). The following hypothesis

100 was accordingly formulated:

101 H1: emotional intelligence at Time 1 will predict career adaptability at Time 2 while

102 controlling for prior levels of career adaptability at Time 1.

103 Specifically, we will test this hypothesis and further show that neither a reversed nor a

104 reciprocal causation model would provide a better fit to the data. In addition, we included

105 several demographic control variables in order to test the robustness of the link in terms of

106 magnitude and significance. Those variables were age, gender, educational attainment, job

107 tenure, marital status, and number of children.

108 **2. Methods**

109 *2.1.   Participants and Data Collection*

110 The data were collected among adults enrolled in an adult education program in Educational

111 Sciences. The education program is designed for school teachers and principals, adult trainers,

112 civil servants, HR workers willing to advance their skills and knowledge in educational

113 sciences. Four main specialisations are available: school-based learning, teacher education,

114 management of socio-educational organisations, and adult education. Adult learners' goals

115 can be diverse: salary increase, becoming a school principal, operating a major career change

116 in education, and becoming a teacher or adult trainer.

117 Out of 542 adult learners, 282 responded at Time 1 ($M_{age} = 34.22$, $SD = 9.06$; 72.3% female),

118 and 208 responded 6 months later. In order to avoid selection biases due to panel attrition, we

119 performed several dropout analyses. The results indicated there were no differences in terms

120 of age, gender, educational attainment, tenure, marital status and number of children.

121 Moreover, no differences in mean levels were found neither for emotional intelligence ($t(271)$

122 $= -1.364$, $p = .174$) nor career adaptability ($t(270) = -0.467$, $p = .641$).

123 *2.2.* *Measures*

124 The study variables were measured at both time points. Additionally, we included several

125 demographic characteristics: age, gender, educational attainment, tenure, marital status, and

126 the number of children.

127 *2.2.1. Emotional Intelligence*

128 Emotional intelligence was assessed with the Profile of Emotional Competence (Brasseur,

129 Grégoire, Bourdu, & Mikolajczak, 2013). This measure consists of 50 items from 1 (strongly

130 disagree) to 7 (strongly agree) and provides separate sub-scores for 5 dimensions (i.e.,

131 identification, understanding, expression, regulation, and use) according to 2 targets: own vs.

132 others' emotions. As other measures of emotional intelligence generally tap into intra-

133 personal emotional intelligence (pertaining to one's own emotions; e.g., TEIQue, Petrides &

134 Furnham, 2003), we only used the intrapersonal dimension (i.e., 25 items). Examples of items

135 for the different dimensions are "*I am aware of my emotions as soon as they arise*"

136 (identification), "*When I am sad, I often don't know why*" (reversed; understanding), "*I am*

137 *good at describing my feelings*" (expression), "*I find it difficult to handle my emotions*"

138 (reversed; regulation) and "*I use my feelings to improve my choices in life*" (use).

139 *2.2.2. Career Adaptability*

140 Career adaptability was assessed with the Career Adapt-Abilities Scale (Savickas & Porfeli,

141 2012). This measure consists of 24 items from 1 ("Not one of my strengths") to 5 ("My

142 greatest strength"), composed of 4 career adapt-abilities: concern (e.g., "*Preparing for the*

143 *future*"), control (e.g., "*Counting on myself*"), curiosity (e.g., "*Exploring my surroundings*"),

144 and confidence (e.g., "*Taking care to do things well*").

2.3.   *Statistical Analyses and Missing Data Procedures*

146   Concerning our statistical analyses, we adopted a three-step strategy using structural equation

147   modeling techniques with Mplus 8: (1) testing measurement models at each measurement

148   time; (2) testing the measurement invariance to check whether our factor structure hold across

149   time; (3) comparing several competing cross-lagged models to test the direction and strength

150   of the link between emotional intelligence and career adaptability.

151   The longitudinal analyses were conducted using full information maximum likelihood

152   estimation (FIML) in conjunction with robust maximum likelihood estimator (MLR) for

153   handling missing data. Contrary to deletion or imputation methods, FIML is a strategy using

154   the data from all participants in the estimation of model parameters and has been found to be

155   unbiased in the case of longitudinal studies (Enders, 2010). The method allowed us to make

156   use of all available data instead of using only participants who completed questionnaires at

157   both measurement times.

158   **3. Results**

159   Before testing our study hypotheses, the means, standard deviations, Cronbach's alpha

160   coefficients, and bivariate correlations were computed (see Table 1). The pattern of

161   correlations was as expected as our constructs correlated both synchronously and across time.

162   In addition, both constructs had satisfactory test-retest reliabilities, .76 and .40 respectively,

163   and satisfactory internal consistencies (Cronbach's α > .85).

164   [insert Table 1 here]

165   *3.1.*   *Measurement Model Analyses*

166   We investigated our measurement model by comparing two alternative models at each

167   measurement time. A two-factor model representing our two distinct constructs was

7

168 systematically compared to a one-factor model with all indicators loading on a single latent

169 factor. According to our results, the two-factor model fitted the data well at both Time 1 ($\chi^2 =$

170 65.47, $df = 26$, CFI = .94, RMSEA = .074, SRMR = .051) and Time 2 ($\chi^2 = 66.53$, $df = 26$,

171 CFI = .91, RMSEA = .087, SRMR = .06). Comparisons based on Chi-square difference tests

172 revealed that the two-factor models fitted the data better than the one-factor models ($\Delta\chi^2 =$

173 1178.29, $p < .001$, for Time 1; $\Delta\chi^2 = 95.62$, $p < .001$, for Time 2).

174 Measurement invariance analyses showed support for the equivalence of the factor structure

175 across time (see Table 2). We compared increasingly constrained models to the configural

176 invariance, which replicate the factor structure at both measurement times. All model

177 comparisons were based on differences in Chi-square statistics, CFI (ΔCFI < .01) and

178 RMSEA (ΔRMSEA < .015; Chen, 2007). According to our results, the metric invariance was

179 established (i.e., equality constraints on factor loadings), but the factor structure did not hold

180 when trying to reach scalar invariance (i.e., equality constraints on intercepts). A partial scalar

181 invariance was established by relaxing the constraints on the intercept of the *concern*

182 dimension of career adaptability. Reaching partial scalar invariance is common in practice and

183 is considered as sufficient for testing latent mean differences (Putnick & Bornstein, 2016).

184 [insert Table 2 here]

185 *3.2.   Hypotheses Testing*

186 Several competing cross-lagged models were fitted to the data and compared in several steps

187 (see Table 3). First, we modeled a stability model which only contains the autoregressive

188 effects. Several competing nested models were then compared to the stability model: (1) a

189 causality model, which adds a path from T1 emotional intelligence to T2 career adaptability,

190 (2) a reversed causality model, which adds a path from T1 career adaptability to T2 emotional

191 intelligence and (3) a reciprocal causality model, which contains bidirectional relationships

192 between emotional intelligence and career adaptability. Compared to the stability model, our

8

193 results showed that the causality model best fitted the data ($\Delta\chi^2 = 7.13$, $p < .01$). The

194 standardized estimates of the causality model are displayed in Figure 1. The inclusion of the

195 path from T1 emotional intelligence to T2 career adaptability provided a significant better fit

196 to the data compared to the stability model. However, an alternative reversed causality model

197 did not significantly improved model fit ($\Delta\chi^2 = 0.40$, $p = .526$) and the path from T1 career

198 adaptability to T2 emotional intelligence was not significant ($\beta = 0.04$, $p = .523$). Finally, the

199 reciprocal causality model did not improve the model fit compared to the causality model ($\Delta\chi^2$

200 $= 0.06$, $p = .805$). The causality model was thereby retained as the best fitting model. As

201 Figure 1 shows, T1 emotional intelligence positively predicted T2 career adaptability levels (β

202 $= .241$, $p < .05$) while controlling for the prior levels of career adaptability ($\beta = .326$, $p <$

203 $.001$). The causality model explained a substantial part of the variance of career adaptability

204 ($R^2 = .23$).

205 [Insert Table 3 here]

206 When including the control variables in the analysis, results were identical and did not change

207 the interpretation of the findings. The causality model ($\chi^2 = 368.95$, $df = 221$, CFI $= .91$, TLI $=$

208 $.89$, RMSEA $= .046$) was still the best fitting model compared to the stability model ($\Delta\chi^2 =$

209 4.45, $p < .05$). T1 emotional intelligence still predicted T2 career adaptability levels ($\beta = .214$,

210 $p < .05$) while controlling for the prior levels of career adaptability ($\beta = .342$, $p < .001$) and

211 for the effects of control variables. The model without control variables was thereby retained

212 in order to reduce model complexity. In sum and in line with our hypotheses, these findings

213 supported the causal relationship between emotional intelligence and career adaptability.

214 [Insert Figure 1 here]

215 **4. Discussion**

216   The aim of the present study was to bring additional evidence for the causal relationship

217   between emotional intelligence and career adaptability. Longitudinal empirical evidence was

218   needed as most studies relied on cross-sectional designs (Rudolph et al., 2017). In addition, as

219   most previous studies were undertaken on traditional students, we provided additional

220   evidence with adult learners. Focusing on this sample was important due to the wide range of

221   work, learning, and family demands they have to deal with (Fairchild, 2003). To these ends,

222   we examined the relationship between emotional intelligence and career adaptability using a

223   two-wave cross-lagged design among a sample of adult learners in order to provide an in-

224   depth understanding of how emotional intelligence is associated with career adaptability

225   across time.

226   Our results supported our hypothesis and showed that emotional intelligence predicted

227   career adaptability, which is consistent with the career construction model (Savickas, 2005).

228   This relationship was deemed unidirectional, as neither the reversed causality nor the

229   reciprocal causality model improved model fit. Our findings therefore bring additional

230   support for the causal relationship between emotional intelligence and career adaptability. Our

231   results are consistent with previous cross-sectional studies on call-center workers (Coetzee &

232   Harry, 2014) and university students (Celik & Storme, 2017; Merino-Tejedor et al., 2018;

233   Udayar et al., 2018) and extend previous findings by investigating adult learners' meta-

234   competencies. Within the framework of career construction theory, our findings stress the

235   importance of considering emotional intelligence as a factor of general adaptive readiness that

236   individuals may rely upon to develop and mobilize their career adaptability resources, and

237   lead to a greater adaptive functioning in career-related issues. In that matter, recent findings

238   have successfully shown the mediating role of career adaptability in the link between

239   emotional intelligence and several career-related outcomes such as academic engagement

240 (Merino-Tejedor et al., 2018), academic satisfaction (Celik & Storme, 2017), career

241 indecision and self-perceived employability (Udayar et al., 2018).

242 *4.1. Limitations and Future Directions*

243   Several limitations may have affected the generalizability and the quality of our findings.

244 First, our study focused on adult learners in Educational Sciences. The sample was mainly

245 composed of teachers, adult trainers and social workers. Though targeting a specific

246 population was our objective, replication in other adult learning and work contexts is still

247 needed in order to generalize our findings. Second, cross-lagged longitudinal analysis can at

248 best bring support about causal inferences but does not allow one's to infer causality. Future

249 research should focus on experimental studies in order to further examine the causality

250 assumption between emotional intelligence and career adaptability. Third, the constructs of

251 our study were measured using self-reports and may be biased due to common method

252 variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

253   Notwithstanding these limitations, the present findings offer important avenues for future

254 research. By showing the positive relationship between one's ability to manage emotions and

255 the development of career-related self-regulatory resources, this study highlights the

256 importance to consider emotional intelligence, and broader affective mechanisms, in career

257 development processes. Since calls for the inclusion of emotion in career research (Kidd,

258 2004), research has focused more on the role of emotional intelligence (e.g., Di Fabio &

259 Saklofske, 2014) and affect (e.g., Fiori et al., 2015) in career development. Future research

260 should echo these efforts and further investigate the role of emotion in career development.

261 This is especially important as both emotional intelligence and career adaptability are

262 considered as self-regulatory resources whose activation can vary over time according to

263 individuals' regulation needs (Pekaar, Bakker, van der Linden, Born, & Sirén, 2018; Rossier,

264 2015; Zacher, 2015). Accordingly, studying daily emotional manifestations could enhance our

265   understanding of how individuals use their meta-competencies in order to respond to daily

266   career-related tasks. Similarly, qualitative investigations could explain in more detail how

267   individuals make use of these meta-competencies to display adaptive career functioning in

268   relation to local and specific contexts, tasks, and transitions.

269   Emotional intelligence and career adaptability are important meta-competencies fostering

270   adaptive behaviors, and, ultimately facilitating individuals' adaptation to career challenges

271   and individual well-being. Fruitful implications for research and practice also dwell in the

272   malleability of both constructs. It has been demonstrated that emotional intelligence and

273   career adaptability are malleable competencies that can be learned through training (Hodzic,

274   Scharfen, Ripoll, Holling, & Zenasni, 2018; Koen, Klehe, & Van Vianen, 2012). By

275   providing additional support for the causal relationship, this study brings insights for the

276   design and use of empirically driven career and work interventions. Complementary to the use

277   of training than can be expensive and difficult to implement, qualitative investigations could

278   also shed some light on the conditions in learning and work settings likely to sustain the

279   development of these two career meta-competencies. In this regard, constructing internships

280   as critical reflexive practices has been suggested as an effective way to understand the

281   development and use of competencies (Ripamonti, Galuppo, Bruno, Ivaldi, & Scaratti, 2018).

282   This is especially relevant for adult learners as they generally value opportunities to integrate

283   learning with life and work experiences. These implications give both universities and

284   organizations tools for sustaining adults in the construction of their careers.

285   This study also suggests the importance to consider career development issues in adult

286   education contexts. As we argued, entering an education program is a transition per se and

287   adults are particularly likely to make use of their meta-competencies to deal with the new

288   learning tasks and be successful in their training (Vertongen, De Viron, Vignery, & Nils,

289   2018). At the same time, they have to manage the dual roles of worker and student,

290   notwithstanding family demands (Fairchild, 2003). This is in line with a lifespan perspective

291   that posits that the use of self-regulatory resources may vary at different career stages

292   (Rudolph et al., 2017). Helping adults to succeed in their learning, manage the various

293   challenges related to the work, student, and family domains, as well as to prepare for and deal

294   with career changes through the development of meta-competencies is crucial to build

295   positive and sustainable careers.

296

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298 **References**

299 Ashkanasy, N. M., & Daus, C. S. (2005). Rumors of the death of emotional intelligence in

300   organizational behavior are vastly exaggerated. *Journal of Organizational Behavior*,

301   *26*(4), 441–452. https://doi.org/10.1002/job.320

302 Biemann, T., Zacher, H., & Feldman, D. C. (2012). Career patterns: A twenty-year panel

303   study. *Journal of Vocational Behavior*, *81*(2), 159–170.

304   https://doi.org/10.1016/j.jvb.2012.06.003

305 Brasseur, S., Grégoire, J., Bourdu, R., & Mikolajczak, M. (2013). The Profile of Emotional

306   Competence (PEC): Development and Validation of a Self-Reported Measure that Fits

307   Dimensions of Emotional Competence Theory. *PLoS ONE*, *8*(5), 1–8.

308   https://doi.org/10.1371/journal.pone.0062635

309 Brown, C., George-Curran, R., & Smith, M. L. (2003). The Role of Emotional Intelligence in

310   the Career Commitment and Decision-Making Process. *Journal of Career Assessment*,

311   *11*(4), 379–392. https://doi.org/10.1177/1069072703255834

312 Buyken, M., Klehe, U. C., Zikic, J., & van Vianen, A. E. M. (2015). Merits and challenges of

313   career adaptability as a tool towards sustainable careers. In A. De Vos & B. I. J. M. Van

314   der Heijden (Eds.), *Handbook of Research on Sustainable Careers* (pp. 35–49).

315   Cheltenham: Edward Elgar Publishing Limited.

316 Celik, P., & Storme, M. (2017). Trait Emotional Intelligence Predicts Academic Satisfaction

317   Through Career Adaptability. *Journal of Career Assessment*, 106907271772329.

318   https://doi.org/10.1177/1069072717723290

319 Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance.

320   *Structural Equation Modeling*, *14*(3), 464–504.

321   https://doi.org/10.1080/10705510701301834

322   Coetzee, M. (Ed.). (2014). *Psycho-social Career Meta-capacities*. New York, NY: Springer.

323   https://doi.org/10.1007/978-3-319-00645-1

324   Coetzee, M., & Harry, N. (2014). Emotional intelligence as a predictor of employees' career

325   adaptability. *Journal of Vocational Behavior*, *84*(1), 90–97.

326   https://doi.org/10.1016/j.jvb.2013.09.001

327   de Haro García, J. M., & Castejón Costa, J. L. (2014). Does Trait Emotional Intelligence

328   Predict Unique Variance in Early Career Success Beyond IQ and Personality? *Journal of*

329   *Career Assessment*, *22*(4), 715–725. https://doi.org/10.1177/1069072713515971

330   Di Fabio, A. (2012). Emotional intelligence : A new variable in career decision-making. In A.

331   Di Fabio (Ed.), *Emotional Intelligence - New Perspectives and Applications* (pp. 51–66).

332   Rijeka, Croatia: InTech.

333   Di Fabio, A., & Kenny, M. E. (2014). The Contributions of Emotional Intelligence and Social

334   Support for Adaptive Career Progress Among Italian Youth. *Journal of Career*

335   *Development*, *42*(1), 48–59. https://doi.org/10.1177/0894845314533420

336   Di Fabio, A., Palazzeschi, L., Asulin-Peretz, L., & Gati, I. (2013). Career Indecision Versus

337   Indecisiveness: Associations With Personality Traits and Emotional Intelligence. *Journal*

338   *of Career Assessment*, *21*(1), 42–56. https://doi.org/10.1177/1069072712454698

339   Di Fabio, A., & Saklofske, D. H. (2014). Comparing ability and self-report trait emotional

340   intelligence, fluid intelligence, and personality traits in career decision. *Personality and*

341   *Individual Differences*, *64*, 174–178. https://doi.org/10.1016/j.paid.2014.02.024

342   Emmerling, R. J., & Cherniss, C. (2003). Emotional Intelligence and the Career Choice

15

343   Process. *Journal of Career Assessment*, *11*(2), 153–167.

344   https://doi.org/10.1177/1069072702250425

345 Enders, C. K. (2010). *Applied missing data analysis*. New York, NY: The Guilford Press.

346 Fairchild, E. E. (2003). Multiple Roles of Adult Learners. *New Directions for Student*

347   *Services*, *102*, 11–16. https://doi.org/10.1002/ss.84

348 Fiori, M., Bollmann, G., & Rossier, J. (2015). Exploring the path through which career

349   adaptability increases job satisfaction and lowers job stress: The role of affect. *Journal of*

350   *Vocational Behavior*, *91*(51), 113–121. https://doi.org/10.1016/j.jvb.2015.08.010

351 Hodzic, S., Ripoll, P., Lira, E., & Zenasni, F. (2015). Can intervention in emotional

352   competences increase employability prospects of unemployed adults? *Journal of*

353   *Vocational Behavior*, *88*, 28–37. https://doi.org/10.1016/j.jvb.2015.02.007

354 Hodzic, S., Scharfen, J., Ripoll, P., Holling, H., & Zenasni, F. (2018). How Efficient Are

355   Emotional Intelligence Trainings: A Meta-Analysis. *Emotion Review*, *10*(2), 138–148.

356   https://doi.org/10.1177/1754073917708613

357 Johnston, C. S. (2018). A Systematic Review of the Career Adaptability Literature and Future

358   Outlook. *Journal of Career Assessment*, *26*(1), 3–30.

359   https://doi.org/10.1177/1069072716679921

360 Kidd, J. M. (2004). Emotion in career contexts: Challenges for theory and research. *Journal of*

361   *Vocational Behavior*, *64*(3), 441–454. https://doi.org/10.1016/j.jvb.2003.12.009

362 Koen, J., Klehe, U. C., & Van Vianen, A. E. M. (2012). Training career adaptability to

363   facilitate a successful school-to-work transition. *Journal of Vocational Behavior*, *81*(3),

364   395–408. https://doi.org/10.1016/j.jvb.2012.10.003

365 Lopes, P. N., Brackett, M. A., Nezlek, J. B., Schütz, A., Sellin, I., & Salovey, P. (2004).

366   Emotional intelligence and social interaction. *Personality and Social Psychology*

367   *Bulletin*, *30*(8), 1018–1034. https://doi.org/10.1177/0146167204264762

368   Martins, A., Ramalho, N., & Morin, E. (2010). A comprehensive meta-analysis of the

369   relationship between Emotional Intelligence and health. *Personality and Individual*

370   *Differences*, *49*(6), 554–564. https://doi.org/10.1016/j.paid.2010.05.029

371   Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D.

372   Sluyter (Eds.), *Emotional development and emotional intelligence: Educational*

373   *implications* (pp. 3–31). New York, NY: Basic Books.

374   Merino-Tejedor, E., Hontangas, P. M., & Petrides, K. V. (2018). Career Adaptability

375   Mediates the Effect of Trait Emotional Intelligence on Academic Engagement. *Revista*

376   *de Psicodidactica*, *23*(2), 77–85. https://doi.org/10.1016/j.psicod.2017.10.001

377   Negru-Subtirica, O., Pop, E. I., & Crocetti, E. (2015). Developmental trajectories and

378   reciprocal associations between career adaptability and vocational identity: A three-wave

379   longitudinal study with adolescents. *Journal of Vocational Behavior*, *88*(37), 131–142.

380   https://doi.org/10.1016/j.jvb.2015.03.004

381   Pekaar, K. A., Bakker, A. B., van der Linden, D., Born, M. P., & Sirén, H. J. (2018).

382   Managing own and others' emotions: A weekly diary study on the enactment of

383   emotional intelligence. *Journal of Vocational Behavior*, *109*(May), 137–151.

384   https://doi.org/10.1016/j.jvb.2018.10.004

385   Petrides, K. V., & Furnham, A. (2003). Trait Emotional Intelligence: Behavioural Validation

386   in Two Studies of Emotion Recognition and Reactivity to Mood Induction. *European*

387   *Journal of Personality*, *17*(1), 39–57. https://doi.org/10.1002/per.466

388   Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method

389   biases in behavioral research: a critical review of the literature and recommended

390   remedies. *The Journal of Applied Psychology*, *88*(5), 879–903.

391   https://doi.org/10.1037/0021-9010.88.5.879

392   Potgieter, I. L. (2014). Personality and Psycho-Social Employability Attributes as Meta-

393   capacities for Sustained Employability. In M. Coetzee (Ed.), *Psycho-social Career Meta-*

394   *capacities*. New York, NY: Springer.

395   Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and

396   reporting: The state of the art and future directions for psychological research.

397   *Developmental Review*, *41*, 71–90. https://doi.org/10.1016/j.dr.2016.06.004

398   Ripamonti, S., Galuppo, L., Bruno, A., Ivaldi, S., & Scaratti, G. (2018). Reconstructing the

399   internship program as a critical reflexive practice: the role of tutorship. *Teaching in*

400   *Higher Education*, *23*(6), 751–768. https://doi.org/10.1080/13562517.2017.1421627

401   Rossier, J. (2015). Career adaptability and life designing. In L. Nota & J. Rossier (Eds.),

402   *Handbook of life design: From practice to theory and from theory to practice* (pp. 153–

403   168). Göttingen, Germany: Hogrefe.

404   Rudolph, C. W., Lavigne, K. N., & Zacher, H. (2017). Career adaptability: A meta-analysis of

405   relationships with measures of adaptivity, adapting responses, and adaptation results.

406   *Journal of Vocational Behavior*, *98*, 17–34. https://doi.org/10.1016/j.jvb.2016.09.002

407   Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R.

408   W. Lent (Eds.), *Career Development and Counseling: Putting Theory and Research to*

409   *Work*. John Wiley & Sons.

410   Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction,

411   reliability, and measurement equivalence across 13 countries. *Journal of Vocational*

412   *Behavior*, *80*(3), 661–673. https://doi.org/10.1016/j.jvb.2012.01.011

413   Selig, J. P., & Little, T. D. (2012). Autoregressive and Cross-Lagged Panel Analysis for

414   Longitudinal Data. *Handbook of Developmental Research Methods*, (December 2013),

415   265–278.

416   Udayar, S., Fiori, M., Thalmayer, A. G., & Rossier, J. (2018). Investigating the link between

417   trait emotional intelligence, career indecision, and self-perceived employability: The role

418   of career adaptability. *Personality and Individual Differences*, *135*(June), 7–12.

419   https://doi.org/10.1016/j.paid.2018.06.046

420   Vertongen, G., Bourgeois, E., Nils, F., De Viron, F., & Traversa, J. (2009). Les motifs

421   d'entrée en formation des adultes en reprise d'études universitaires. *L'orientation*

422   *Scolaire et Professionnelle*, *39*(2), 219–240. https://doi.org/10.4000/osp.2988

423   Vertongen, G., De Viron, F., Vignery, K., & Nils, F. (2018). Predicting achievement among

424   Belgian university adult students : an integrative approach. *Les Cahiers de Recherche Du*

425   *Girsef*, *112*, 1–22.

426   Zacher, H. (2014). Career adaptability predicts subjective career success above and beyond

427   personality traits and core self-evaluations. *Journal of Vocational Behavior*, *84*(1), 21–

428   30. https://doi.org/10.1016/j.jvb.2013.10.002

429   Zacher, H. (2015). Daily manifestations of career adaptability: Relationships with job and

430   career outcomes. *Journal of Vocational Behavior*, *91*, 76–86.

431   https://doi.org/10.1016/j.jvb.2015.09.003

432   Zacher, H., & Griffin, B. (2015). Older Workers' Age as a Moderator of the Relationship

433   Between Career Adaptability and Job Satisfaction. *Work, Aging and Retirement*, *1*(2),

434   227–236. https://doi.org/10.1093/workar/wau009

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Table(s)

Table 1. Means, standard deviations, reliabilities and bivariate correlations for the study variables

	M	SD	1	2	3	4	5	6	7	8	9	10
Time1												
1. Age	34.22	9.06	—									
2. Gender	—	—	−.05	—								
3. Education	—	—	.06	.05	—							
4. Tenure	9.17	7.32	.80***	−.05	−.04	—						
5. Marital status	—	—	.54***	−.01	.02	.43***	—					
6. Nb. children	1.11	1.36	.58***	.01	.01	.47***	.56***	—				
7. EI	4.72	0.73	.24***	−.13*	.07	.16**	.18**	.16**	**.85**			
8. CA	4.22	0.41	.10	−.12†	.11†	.03	.09	−.02	.36***	**.91**		
Time 2												
9. EI	4.69	0.79	.22**	−.07	.13†	.12	.13†	.06	.76***	.25**	**.88**	
10. CA	3.82	0.42	.24**	−.05	.14†	.21**	.04	.14†	.30***	.40***	.38***	**.88**

Note. N_{time1} = 282; N_{time2} = 208. EI = emotional intelligence. CA = career adaptability. $^\dagger p < .10$. $* p < .05$. $** p < .01$. $*** p < .001$. Cronbach's alphas are reported on the diagonal in bold.

Table 2. Measurement invariance statistics.

	Models	MLRχ²(df)	CFI	TLI	RMSEA	RMSEA 90% CI	SRMR	Δ MLRχ²(df)	Comparison
M₁	Configural invariance	325.06 (225)	.948	.937	.037	.028-.046	.066	–	–
M₂	Metric invariance	337.27 (234)	.947	.937	.037	.028-.046	.074	12.26 (9)	M₂–M₁
M₃	Scalar invariance	391.14 (243)	.923	.913	.044	.035-.051	.086	55.67 (9)*	M₃–M₂
M₄	Partial scalar invariance	351.23 (241)	.943	.935	.038	.029-.046	.075	14.04 (7)	M₄–M₂

Note. MLRχ² = chi-square test of model fit associated with robust maximum likelihood estimator; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual. $* p < .001$.

Table 3. Cross-lagged model fit and comparison of alternative models.

	Models	MLRχ²(df)	CFI	TLI	RMSEA	RMSEA 90% CI	SRMR	Δ MLRχ²(df)	Comparison
M₁	Stability model	244.914(137)	.927	.918	.050	.039-.059	.109	–	–
M₂	Causality model	238.061(136)	.931	.922	.048	.038-.058	.107	7.1344(1)*	M₁–M₂
M₃	Reversed causality model	243.785(136)	.927	.918	.050	.039-.060	.109	0.4024(1)	M₁–M₃
M₄	Reciprocal causality model	237.055(135)	.931	.921	.049	.038-.059	.106	0.0610(1)	M₂–M₄

Note. MLRχ² = chi-square test of model fit associated with robust maximum likelihood estimator; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual. $* p < .01$.
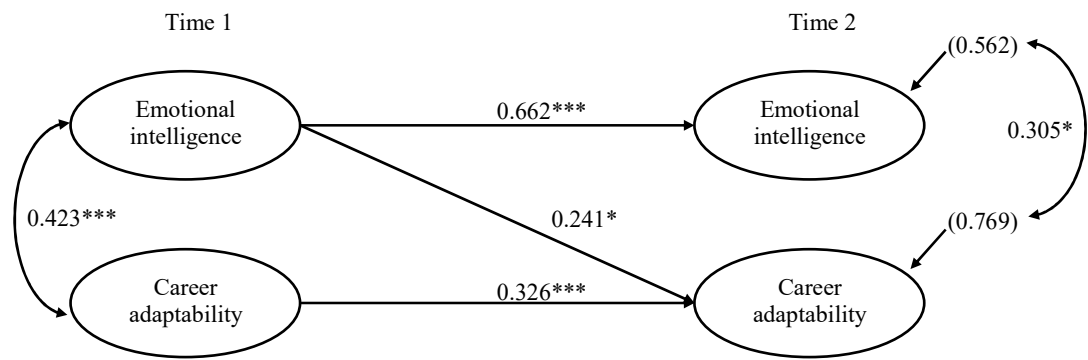
Figure(s)

Figure 1. Cross-lagged relationships between emotional competence and career adaptability of the causality model. * p < .05. *** p < .001.

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