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Overlap between the General Factor of Personality and Emotional Intelligence: A Meta-analysis

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Abstract

We examine the relationship between the general factor of personality (GFP) and emotional intelligence (EI) and specifically test the hypothesis that the GFP is a social effectiveness factor overlapping conceptually with EI. Presented is an extensive meta-analysis in which the associations between the GFP, extracted from the Big Five dimensions, with various EI measures is examined. Based on a total sample of k = 142 data sources (N = 36,268) the two major findings from the meta-analysis were 1) a large overlap between the GFP and trait EI ($r \approx .85$), and 2) a positive, but more moderate, correlation with ability EI ($r \approx .28$). These findings show that high-GFP individuals score higher on trait and ability EI, supporting the notion that the GFP is a social effectiveness factor. The findings also suggest that the GFP is very similar, perhaps even synonymous, to trait EI.

Key words: general factor of personality; emotional intelligence; meta-analysis; social effectiveness; Big Five; trait EI; ability EI

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Introduction

Research on individual differences is often aimed at determining the building blocks of intelligence and personality. In the area of cognitive abilities this has led to the identification of a general factor labeled *g* (Spearman, 1904). This *g* factor has been studied extensively and it has now been widely established that *g* reflects the general efficiency of the brain to solve novel and complex problems (Jensen, 1998). Moreover, the *g* factor strongly influences specific cognitive abilities, such as spatial, verbal, and numerical ability.

In the area of personality, until recently, researchers had not attended to the possibility of a substantive general factor. Instead, various structural models were developed consisting of multiple, presumably independent personality factors (Ashon & Lee, 2007; Eysenck & Eysenck, 1975; Goldberg, 1981). Nevertheless, a general factor has been consistently reported since the very beginning of systematic research on personality (e.g., Fiske, 1949; Galton, 1887; Peabody & Goldberg, 1989; Saucier, 1994; Stankov, 2005; Webb, 1915). Interest in this general factor has resurfaced in the literature due to recent large-scale studies revealing that personality traits covary, leading to a sizeable proportion of shared variance that can be labeled the General Factor of Personality (GFP; Figueredo, Vásquez, Brumbach, & Schneider, 2004; Musek, 2007; Rushton, Bons, & Hur, 2008). These studies provide rather strong evidence that a GFP can be identified in multiple personality measures.

The nature and interpretation of this GFP are subject to an ongoing debate. Some researchers have suggested that the GFP reflects a substantive higher-order personality factor (Figueredo et al., 2004; Irwing, 2013; Loehlin, 2012; Rushton & Irwing, 2011; Van der Linden, Dunkel, & Petrides, 2016). This implies that individuals scoring high on the GFP will

also score relatively high on the Big Five dimensions of openness, extraversion, conscientiousness, agreeableness, and emotional stability. In this view, one's score on any of the Big Five dimensions, say extraversion, reflects partly variance that is unique to that trait (such as variance due to individual differences in dopamine pathways in the brain [Depue & Collins, 1999]), and reflects partly variance that can be attributed to the GFP (Van der Linden, 2011).

The main proposition in the substantive account of the GFP is that the construct represents a tendency towards socially desirable behavior. Such behavior will positively influence how a person is evaluated by others, leading to the development of a 'good reputation' and, consequently, to an increased probability of being selected as a mate, a co-worker, and a leader (Figueredo et al., 2004; Irwing, Booth, Nyborg, & Rushton, 2012; Rushton et al., 2008). Accordingly, the GFP can be considered a social effectiveness factor (Dunkel & Van der Linden, 2014; Loehlin, 2012; Van der Linden et al., 2016).

An alternative view on the GFP is that it mainly reflects methodological artifacts (Anusic, Schimmack, Pinkus, & Lockwood, 2009; Bäckström, Björklund, & Larsson, 2009; Chang, Connelly, & Geeza, 2012). High-GFP individuals may provide more socially desirable responses to personality surveys (e.g., due to faking or an inflated sense of self) even though these responses may not necessarily reflect how they would typically behave (Pettersson & Turkheimer, 2012). In this 'artifact view', the GFP may still be an interesting phenomenon because it indicates the presence of measurement bias (i.e., error) in personality assessment, but it should not be considered a fundamental factor of personality.

Given these contrasting views of the GFP, we considered it a relevant and timely step to further examine the nature of this general factor by exploring its relationship with an established and important construct in psychological research, namely, emotional intelligence (EI). If the GFP indeed largely reflects social effectiveness (for a review on this idea, see Van

der Linden et al., 2016), then it can be expected to have some overlap with measures of EI, as EI also relates to how one effectively deals with social demands (Petrides, 2011; Salovey & Mayer, 1990). Van Rooy and Viswesvaran (2004) stated that it is difficult to come to a consensual operational definition of EI. Yet, despite a lack of consensus, a broad description of EI is that it concerns the extent and manner in which individuals experience and utilize affect-laden information of an intra-personal (e.g., managing one's own emotions) and interpersonal (e.g., managing other's emotions) nature (Petrides, 2011; Salovey & Mayer, 1990; Zeidner, Roberts, & Matthews, 2008).

In the following sections, we first elaborate on the GFP literature and discuss several key issues in the debate surrounding the GFP. Subsequently, we provide a concise review of the theoretical background of EI and posit that EI exhibits significant conceptual overlap with the GFP. The main hypothesis about the GFP-EI association will then be tested in a large meta-analysis that includes trait as well as ability measures of EI.

Basic characteristics of the GFP

Irrespective of the domain of interest (e.g., personality, ability, psychopathology), the idea that a general factor exists often starts with observations that various constructs within that domain correlate in a consistent and systematic manner (Caspi et al., 2014; Figueredo et al., 2004; Jensen, 1998). This suggests that these constructs are under the influence of a much broader, higher-order, construct. The most well-known example is in the cognitive domain, in which it was found that tests of specific cognitive abilities typically correlate such that superior performance on one test (e.g., verbal ability) increases the probability of superior performance on other tests of specific cognitive abilities (e.g., spatial, or numerical ability). Based on this key observation, the existence of the *g* factor was postulated, which is assumed to partially drive performance on all cognitive ability tests (Jensen, 1998; Spearman, 1904).

It is clear in the literature that the *g* factor initially received concerted criticism. Scholars argued that this factor likely reflects statistical artifacts and suggested, for example, that a general factor extracted from one set of ability measures would not be similar to a general factor extracted from another set of ability measures (e.g., Carroll, 1991). This is known as factor non-invariance. It was also suggested that the *g* factor 1) does not have much practical validity (i.e., has only limited predictive power for real life outcomes); 2) is only important in academic settings; and 3) remains too abstract in terms of its nature or underlying brain mechanisms (for an overview, see Jensen, 1998, and Schmidt, 2002). Several decades of research, however, demonstrated that these criticisms were unjustified because the *g* factor is indeed stable over measurements, and is predictive of a wide range of important real-life outcomes, including educational achievement, job level and job performance, and health (Gottfredson, 1997; Jensen, 1998; Schmidt, 2002).

The discovery of the *g* factor and the confirmation of its predictive validity is relevant for the discussion of the nature of the GFP, because the respective objections are not dissimilar. For example, as with the *g* factor, during the early stages of GFP research, it was suggested that GFPs extracted from different personality measures would represent different underlying constructs and, therefore, would exhibit only weak associations (De Vries, 2011; Hopwood, Wright, & Donnellan, 2011). Yet, several recent studies have made it clear that GFPs extracted from different personality measures do show meaningful overlap, with an average correlation among GFPs of $r \approx .60$ (Davies et al., 2015; Dunkel et al., 2014; Loehlin, 2012; Loehlin & Martin, 2011; Rushton & Irwing, 2011; Van der Linden, Te Nijenhuis, Cremer, Van de Ven, 2011). By comparison, the correlations between extraversion dimensions extracted from different instruments typically vary in the range of $r = .40$ to .80 (Connelly & Ones, 2010).

Another shared criticism is that the method of extraction strongly determines the nature of the GFP (Revelle & Wilt, 2013). For example, parallel to general factors in other areas, the GFP is estimated by: 1) the first unrotated factor in a set of personality measures (Dunkel, DeBaca, Woodley, & Fernandez, 2014); 2) using a simple average of lower-order traits (Dunkel, 2013); or 3) using confirmatory factor analysis (CFA) and structural equation modeling (Van der Linden et al., 2010), in which one can either apply hierarchical models or bi-factorial models. Although it is true that there are statistical differences between these methods, there is an increasing body of literature demonstrating that they nevertheless lead to highly similar outcomes when it comes to the GFP. For instance, several published studies have shown that GFPs extracted by means of CFA or principal axis factoring lead to very similar GFP loadings and to nearly identical relations with criterion variables (e.g., Dunkel, Van der Linden, Beaver, & Woodley, 2014; Van der Linden et al., 2010). These results are in accordance with our own experience with numerous datasets in which we tested the GFP and applied various statistical techniques, only to find that, give or take a few decimal points, outcomes and conclusions have remained virtually identical.

For the *g* factor, Jensen and Weng (1994) compared the various extraction methods (e.g., exploratory and confirmatory factor analysis, unit-weighted average) and concluded, "*Almost any g is a "good" g and is certainly better than no g*." (p. 231). The initial findings regarding the GFP seem to indicate that a similar conclusion may be justified and that almost 'any GFP is a good GFP[1]'. In addition, there is increasing evidence that it is mainly the GFP component of the shared variance in personality measures that drives much of their criterion-validity (Dunkel & Van der Linden, 2014). For example, a recent study using meta-analytic data showed that after controlling for the GFP, the predictive validity of the unique variance of the Big Five on job performance is either strongly reduced or completely disappears (Pelt,

Van der Linden, Dunkel, & Born, 2015). Thus, this would also justify the conclusion that when examining the criterion validity of personality, 'any GFP is better than no GFP'.

The analogy between the GFP and the *g* factor in itself has also been a point of critique. Revelle and Wilt (2013) showed that the *g* factor generally explains a very large proportion of the variance in the underlying constructs (up to 80 or 90%), while the variance explained by the GFP is often quite a bit lower. Accordingly, they concluded that any comparisons between the two constructs may be misleading. However, while the *g* factor is stronger than the GFP, it does not follow that the GFP is irrelevant. Given that the *g* factor is one of the strongest and most consistently extracted factors in the whole of social science, it might be unreasonable to use it as a benchmark for evaluating the relevancy of other factors.

The literature shows that the GFP often explains somewhere between 20 to 60% of the variance in the underlying personality traits, which is, by all means, a rather substantial amount of variance. Another point to take into account is that many personality models, such as the Big Five, were designed to contain independent factors. This implies that out of the large pool of items that could reflect personality, one often only selects those that differ most from each other with the aim of keeping factor intercorrelations as low as possible. In contrast, in the cognitive domain, there has not been a strong emphasis on finding independent factors. Despite the concerted efforts to establish independence, it is apparent that higher-order personality factors maintain a substantial level of shared variance.

In addition, although the GFP may not be as strong as the *g* factor, the GFP still compares relatively well to presumed general factors in other domains. For example, in the recent clinical literature, a general factor of psychopathology (the *p* factor) has been postulated that resembles the GFP in terms of the factor loadings and the level of variance explained in the underlying traits (Caspi et al., 2014). Moreover, in the domain of cognitive science it has been shown that a common factor of executive function exists, even though

measures of various specific executive functions (e.g., updating, working memory, shifting) show relatively modest intercorrelations (Miyake & Friedman, 2012). Compared to this presumed general factor of executive functioning, the GFP is strong, robust, and psychologically meaningful.

Focusing on the statistical properties of the GFP and its extraction, Revelle and Wilt (2013) emphasized that it is mathematically possible to have a large first unrotated factor in a set of measures that does not necessarily reflect a *general* factor. They argued that a large unrotated general factor can emerge even though the underlying measures do not all share a substantial portion of their variance. Although this mathematical possibility exists, we wish to emphasize that it is at odds with a wide range of empirical data confirming that the GFP does indeed reflect a general factor in which each of the underlying traits share variance (Figueredo et al., 2004; Musek, 2007; Rushton & Irwing, 2011; Van der Linden et al., 2010). For example, the GFP usually loads on each of the Big Five factors in a pattern of +O, +C, +E, +A, and -N. Thus, the first unrotated factor often provides a good proxy of the GFP. Moreover, the GFP is unlikely to represent a statistical by-product because it has clearly defined content and represents the socially desirable ends of personality measures, irrespective of whether one extracts the GFP directly from the traits, the facets or the items. In this context, we believe that the following remarks by Jensen (1998) are pertinent here:

> "*While it is indeed true that an unlimited number of different positions of the factor axes is possible and that all of them are mathematically equivalent in reproducing the original correlations, some factor structures make more sense, theoretically, than others. Some possible factor structures may even create quite misleading impressions*" (p. 94).

A final statistical critique we discuss, states that higher-order factors of personality (e.g., the GFP) are the result of correlated, or so-called, blended facets (Asthon et al., 2009). For example, the

facet ‘enthusiasm’ may relate to both extraversion and agreeableness, thus leading to a correlation between those dimensions. Subsequently, it has been argued that higher-order factors above, for instance, the level of the Big Five, would disappear when one controls for such blended facets. Blended-facet models overlap with general-factor models in the sense that they both acknowledge that personality traits truly correlate. The difference between them, however, lies in how one chooses to model these correlations statistically. The citation of Jensen (1998) mentioned above also applies here because even if several equivalent statistical solutions are possible, some make better theoretical sense than others. Regarding this, based on the empirical evidence we would favor a solution in which a general factor rather than lower-order facets cause mid-level personality traits to correlate.

The nature of the GFP

If the presence of a general factor in personality measures is accepted, a subsequent question is how to interpret it. Statistical factors themselves are not explanatory constructs, but rather require a description of their nature. The literature provides various suggestions about how to describe the GFP, which can be broadly categorized in two overarching views.

As stated above, one view is that the GFP mainly reflects general social effectiveness (Dunkel & Van der Linden, 2014; Loehlin, 2012; Rushton et al., 2008; Van der Linden et al., 2016) while the other is that it is a methodological artefact, such as social desirability bias (Anusic et al., 2009; Bäckström et al., 2009; Chang et al., 2012). There is some empirical support for both perspectives. In favor of the substantive, social effectiveness view are studies showing that the GFP is related to a range of relevant, other-rated or objective criteria. For example, a GFP derived from self-reports has been found to predict supervisor-rated and objective job performance (Sitser, Van der Linden, & Born, 2013; Van der Linden et al., 2010), classmate ratings of likeability and popularity (Van der Linden et al., 2010b), outcomes of social dilemma games (Dunkel, Summerville, Mathes, Kesserling, Yockey, Reeve, & Stolmeier, 2014), interviewer impressions (Dunkel, Nedelec, & Van der Linden, 2014), and delinquent behavior (Van der Linden, Dunkel, Beaver, Woodley, & Louwen,

2015). These findings are strongly at odds with artefact explanations of the GFP. For example, it is entirely unclear how faking socially desirable answers in personality assessment can relate to the number of times one is arrested (Van der Linden et al., 2015), or to the actual number of new customers that sale employees attract (Sitser et al., 2013). The ability of the GFP to predict such real-world outcomes attests to its validity. That is, high-GFP individuals seem to genuinely and consistently display higher levels of socially desirable or socially effective behavior.

Studies supporting the artefact view show that GFP scores are related to the tendency to endorse positively (socially desirable) framed personality items (Anusic et al., 2009; Pettersson, Turkheimer, & Horn, 2012), and that the size of the GFP is reduced when items are reformulated in such a way that their social desirability component is minimized (Bäckström et al., 2009). A limitation of these studies, however, is that they did not include criterion measures and, thus, could not test whether tendencies towards socially desirable answers predicted real-life outcomes. Further, it remains unclear whether one can simply take away the socially desirable component of personality items, without changing their actual content. Finally, if the GFP truly reflects social effectiveness, it is obvious that removing the social effectiveness component of items will lead to a highly diminished GFP.

Insofar as high GFP individuals are genuinely more socially effective, a pertinent question is what causes them to behave in such a way. In the present study, we address this crucial question by posing the hypothesis that a high level of emotional intelligence (EI) may be one of the possible answers. If a GFP-EI link is uncovered, this would constitute an important step in transcending limited descriptions of the GFP in terms of statistical properties and associations with external criteria, in favor of a more precise theoretical understanding of its essence.

Emotional Intelligence and the GFP

Based on prevailing EI definitions in the literature, it can be inferred that high-EI individuals are, on average, more effective in social interactions than their low-EI peers (e.g., Lopes et al., 2004). This is because a core aspect of EI involves knowing how to act in order to optimize the probability of attaining social or personal goals (Zeidner et al., 2008). For example, one may be angry at one's boss, but instead of acting out in rage, an emotionally intelligent response would be to express dissatisfaction in a socially acceptable manner. So, if high-EI individuals are socially effective, then it is not difficult to imagine how this would push the manifestation of multiple personality traits into a socially desirable direction. One would not be judged as socially effective if others perceived him or her as unfriendly, emotionally unstable, lethargic, or extremely shy. Consequently, high-EI individuals, either by nature or by self-regulating, should consistently behave in open-minded, reliable, sociable, and stable ways, thus causing correlations between these and other cognate traits, ultimately leading to a GFP.

Several direct or indirect indications of GFP and EI overlap have already been reported. One indirect indication can be found in the results of an earlier meta-analysis on personality and EI (Van Rooy & Viswesvaran, 2004), which showed that EI is significantly correlated with the socially desirable poles of each of the Big Five dimensions. It was found that EI was positively correlated with openness, conscientiousness, extraversion, agreeableness, and emotional stability, with values of ρ = .23, .31, .34, .23, and .33, respectively. If the Big Five show correlations with EI in the same (socially desirable) direction as was reported by Viswesvaran and Ones in their 2004 meta-analysis, then the GFP which is hypothesized to be present in each of the Big Five, would also likely display strong overlap with EI (Figueredo et al., 2006; Loehlin, 2012; Loehlin & Martin, 2011; Rushton & Irwing, 2011). At least three studies provided direct evidence for the GFP-EI link, reporting

average correlations around *r* = .70 (e.g., Pérez-González & Sanchez-Ruiz, 2014; Van der Linden et al., 2012; Veselka et al., 2009, 2010). Given these findings, we considered it useful to provide a more extensive examination of the relationship between the GFP and EI using meta-analytic techniques.

Models of EI

An important distinction in the EI literature is between *trait EI* and *ability EI*, (Martins, Ramalho, & Morin, 2010; Petrides & Furnham, 2000). Trait EI is formally defined as a constellation of emotional perceptions operationalized via questionnaires and ratings scales (Petrides et al., 2007). This definition basically states that trait EI concerns how people perceive their own emotional and social effectiveness, which is assumed to, at least partially, reflect their genuine emotional and social effectiveness. The latter idea is supported by the fact that measures of trait EI have been associated with a range of other-rated or objective outcomes such as job performance (O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011) and health (Martins et al., 2010).

Ability EI is often defined as a set of emotion-related cognitive abilities that ought to be measured via maximum performance tests (Côté, 2014; Mayer, Caruso, & Salovey, 1999). Emotion-related cognitive abilities here refer to competencies, such as being able to identify the emotional states of others, having knowledge about the effects of emotions on behavior, and being capable of regulating one's own and others' emotional states (Salovey & Mayer, 1997).

The trait and ability EI constructs measured with either questionnaires or ability tests, respectively, tend to correlate weakly, typically between *r* = .20 to .30 (Brannick, Wahi, Arce, Johnson, Nazian, & Goldin, 2009; Petrides, 2011) and researchers have argued that they may represent substantially different constructs. Nevertheless, it is still possible that they might reflect different aspects of the same general mechanisms (Brannick et al., 2009).

In line with the present state of knowledge in EI research, the present meta-analysis clearly differentiates between trait and ability EI (see also, Martins et al., 2010). In addition, we present meta-analytic results broken down by instrument within the trait EI domain. Specifically, we examine results for the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009), which is currently the main vehicle for operationalizing trait EI and provides a comprehensive operationalization of the trait EI construct (Petrides, Pérez-González, & Furnham, 2007). This instrument has shown strong evidence of construct and predictive validity (Andrei, Siegling, Baldaro, & Petrides, 2015). Moreover, the few previous studies that have explicitly tested the overlap between GFP and EI have exclusively used the TEIQue (Pérez-González & Sanchez-Ruiz, 2014; Van der Linden et al., 2012; Veselka et al., 2009).

Within the domain of trait EI studies, we also conduct separate analyses on the subset of studies that have used the Wong and Law Emotional Intelligence Scale (WLEIS; Law, Wong, & Song, 2004). The WLEIS is somewhat unusual because it is a self-report measure (implying trait EI), yet theoretically it claims to be based on the ability EI model. Therefore, we considered it conceptually useful to investigate whether results obtained with the WLEIS are closer to the trait EI or the ability EI conceptualization.

In summary, the present meta-analysis examines relations between the GFP and various measures of EI. Although, in principle, the GFP can be extracted from any comprehensive personality model, we focus on the Big Five model because it is best established and often assumed to offer "…a universal and comprehensive framework for the description of individual differences in personality" (McCrae & Costa, 1986 p. 1001).

Method

Meta-analytic procedure. We apply a psychometric meta-analysis as described in Hunter and Schmidt (2004). An extensive and highly cited meta-analytic study of Big Five correlations was conducted by Van der Linden, Te Nijenhuis, and Bakker (2010) who

collected 212 Big Five intercorrelation matrices published in scientific peer-reviewed journals, representing a total *N* of 114,117 participants (sample sizes varied from 39 to 21,105, with a mean of *N* = 679.8, median *N* = 233.5). Van der Linden et al. (2010) reported the weighted observed intercorrelations as well as the weighted intercorrelations after correction for unreliability, range restriction, and sampling error. The meta-analytically established reliabilities of the Big Five were .75, .81, .80, .76, and .82, for O, C, E, A, and N, respectively (Van der Linden et al., 2010, Table 1, p. 318)

In the present study, we use the values reported by Van der Linden et al. (2010) as reliable estimates of the Big Five intercorrelations. Using the Big Five intercorrelations from Van der Linden et al. (2010) is advantageous because they are based on more studies than if we considered the Big Five intercorrelations from EI studies exclusively. Thus, it provides better and more stable estimates of those correlations. There are no reasons to assume that Big Five intercorrelations in the overall personality literature would systematically differ from Big Five intercorrelations reported in the EI literature, as they are derived from the same instruments (e.g., the NEO-PI-R, BFI, IPIP)[2].

We decided to conduct a new meta-analysis on the correlations between the Big Five and EI because the previous meta-analysis on this topic was based on a very limited number of studies (Van Rooy & Viswesvaran, 2004; *k* = 23). Since then, dozens more studies with much more sophisticated EI instruments have been published in the literature. Hence, it is essential to update this early work.

Literature search for the meta-analysis. Computerized and manual searches of the scientific literature were conducted in order to locate qualifying studies. Inclusion criteria were that the study reported correlations between any of the dimensions of openness, conscientiousness, extraversion, agreeableness/altruism, and neuroticism (or its reverse emotional stability) and trait or ability EI. Electronic databases were searched using omnibus

terms for the Big Five model (e.g., "Big Five" and "Five Factor Model"), terms for the specific dimensions (e.g., "openness" and "extraversion"), and terms or possible synonyms for emotional intelligence and related constructs (e.g., "emotional intelligence" and "social intelligence"). The following databases were consulted: ScienceDirect, PsychInfo, EricLit, Pubmed, Google Scholar, and Scopus. In addition, we manually searched several key journals (e.g., JPSP, JRP, PAID, EJP, JP, PSPB) as well as reference lists of articles.

Meta-analytic sample characteristics. The literature search yielded 151 sources of Big Five-EI correlations reported in 110 articles. Some articles contained more than one set of Big Five-EI correlations because the researchers had used multiple EI measures or because they had reported multiple studies within one article. In calculating the meta-analytic values, however, we took care to use independent samples and to not include the same sample twice in our calculations. For example, if a study used measures of both trait and ability EI, which was the case in 14 samples, all data could be included in the database because we calculated meta-analytic correlations separately across the two EI constructs. If, however, a study used two (or more) different measures of trait EI in the same sample, we prevented over-sampling by including the Big Five - EI correlations averaged over the EI measures used. There were nine such studies in our sample (5.96% of all studies).

The final number of information sources was $k = 142$. The total (unique) N in the meta-analysis was 36,268. Sample sizes ranged from 30 to 1,458 with a mean of 285.57 (SD = 253.28) and a median of 211. As described above, in 14 samples, the original researchers used trait as well as ability measures. However, as the trait and ability analyses did not overlap, there was no violation of the assumption of independence and no sample was included twice in any of the analyses. Consequently, the total number of unique samples was 142 – 14 = 128.

In 95 samples in the meta-analytic database, trait EI measures were used ($k = 95$, total $N = 30{,}198$, $M_{\text{sample size}} = 317.87$; $SD = 270.12$, $Median_{\text{sample size}} = 232$). Most popular

instruments were the Emotional Quotient Inventory (EQ-i; k = 24), the Trait Emotional Intelligence Questionnaire (TEIQue; k = 22), and the Wong and Law Emotional Intelligence Scale (WLEIS; k = 18). The remaining studies used other instruments.

In 47 samples, ability measures of EI were employed (k = 47, total N = 10,258, $M_{\text{sample size}}$ = 218.26, SD = 180.34, $Median_{\text{sample size}}$ = 175). In most of these samples (k =42), the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) was used. The MSCEIT is currently one of the most widely used tests of ability EI. It involves a computerized task in which participants have to provide answers to various emotion-related questions.

In three cases, the Situational Test of Emotion Management (STEM) and the Situational Test of Emotion Understanding (STEU) were used and in the remaining two cases (Freudenthaler & Neubauer, 2005; Sharma, Gangopadhyay, Austin, & Mandal, 2013) custom-made ability EI measures were employed.

Statistical Analysis. The collected samples were used to construct meta-analytic correlation matrices containing the Big Five intercorrelations (obtained from Van der Linden et al., 2010) as well as the correlations between each of the Big Five dimensions and EI (obtained from the present meta-analysis). These correlation matrices were subsequently used as input for further analyses in which we tested the GFP-EI overlap.

We used exploratory factor analyses as well as confirmatory factor analyses/structural equation modeling (CFA/SEM). Exploratory factor analyses were conducted to examine the extent to which EI falls into the same factor space as other indicators of the GFP (in this case, the Big Five). We primarily used the Principal Axis Factoring (PAF) method, although, for validation purposes, we also examined results obtained through the Maximum Likelihood (ML) algorithm.

The correlation matrices were used as input to SEM (with the ML method) in order to compare three different models (see Figures 1a to 1c): 1a) a hierarchical model with three

levels; viz., the Big Five, two intermediate higher-order factors, and the GFP, which then relates to EI, 1b) a model with two independent higher-order factors directly relating to EI, and 1c) a model wherein each of the Big Five independently relates to EI. These models were derived from previous GFP studies (e.g., Anusic et al., 2009; Musek, 2007; Rushton & Irwing, 2011; Van der Linden et al., 2010). For example, it has been argued that there are two higher-order personality factors, namely Alpha and Beta (Digman, 1997), or Stability and Plasticity, respectively (DeYoung, Peterson, & Higgins, 2002). Alpha, or stability, represents the tendency to act in socially desirable ways and encompasses of a mixture of conscientiousness, agreeableness, and emotional stability. Beta, or plasticity, represents the tendency to seek new and pleasurable experiences and encompasses a mix of openness and extraversion.

Since the meta-analytic correlation tables contained multiple indicators of EI, we modeled a latent EI factor following the procedure proposed by Hayduk (1987), whereby the structural model with a single-indicator latent factor was identified by fixing the error variance to (1-reliability) * variance. Mean reliability estimates for EI were derived from the meta-analysis. Note that in the SEM-based method, the latent single-indicator factor is mathematically equivalent (in terms of fit, degrees of freedom, and parameters) to a model in which EI is considered an additional indicator loading on the GFP. However, the single-indicator factor is more in line with the conceptualization of EI as an established construct that overlaps with the GFP.

The main analyses were conducted on the *N*-weighted matrix (effect sizes weighted by sample size). We tested the uncorrected as well as the corrected correlation matrices. The Big Five intercorrelations were corrected for unreliability, range restriction, and sampling error (see Van der Linden et al., 2010). The correlations between the Big Five and EI were corrected for unreliability based on our meta-analytic information showing that average

reliabilities were .86 for measures of trait EI in general, .82 for measures of ability EI, .88 for the TEIQue, and .85 for the WLEIS.

As *N*s differed across specific analyses, depending on the particular combination of Big Five and EI measures, we decided to set the matrix *N* at the lowest number of observations available within that matrix. This approach is more conservative with respect to significance testing and less conservative with respect to model fit. However, it will not have any appreciable impact on the outcomes due to the fact that *N*s were very large in all cases. Specifically, *N*s were set at 8,630, 26,883, 7,626, and 4,593, for ability EI, trait EI (total), the TEIQue, and the WLEIS, respectively.

In order to assess model fit in the CFA/SEM approach, we considered the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), which is also known as the Non-Normed Fit Index, and the Root Mean Square Error of Approximation (RMSEA). To interpret these indices we relied on the guidelines by Hu and Bentler (1999), who recommended the following cut-offs as indicative for good model fit: CFI $\geq$ .95, TLI $\geq$ .95, and RMSEA $\leq$ .06. We interpreted these cut-offs flexibly, as recommended by Marsh, Hau, and Grayson (2005).

Results

Descriptive statistics. Table 1 displays the intercorrelations between the Big Five as reported in the meta-analysis by Van der Linden et al. (2010). Table 2 shows the correlations between the Big Five and EI as obtained in the present meta-analysis. From Table 2, it becomes clear that trait EI shows substantial correlations with all of the Big Five dimensions ranging from (absolute) r = |.26| to |.40| for the uncorrected matrix, and r = |.32| to |.48| for the corrected matrix.

For ability EI, the observed correlations with the Big Five dimensions were in the same directions, but clearly lower, ranging from r = |.05| to |.16|. This pattern of findings is in

line with the now standard finding that trait EI inventories typically show greater overlap with personality dimensions than ability EI tests (Petrides et al., 2007; Zeidner et al., 2008).

The specific analyses of the WLEIS (k = 18, N = 5,108) showed that the observed correlations with the Big Five fell between the ability EI values at the low end, and the trait EI values at the high end (Table 2). Notable is the low correlation between WLEIS-based EI and extraversion (r = .08). Further inspection revealed that this low value was mainly caused by a single study with a large N of 1458 (Shi & Wang, 2007). Excluding this study almost doubled the observed correlation (r = .17), while including it, but taking the unweighted correlation mean, also raised the value to $r = .17$[3].

In conclusion, although the magnitude of the correlations varied depending on the type of EI measurement, it is clear that in all cases there are meaningful correlations between personality and EI in line with expectations based on GFP theory. That is, EI correlated with the Big Five in the expected pattern of +O, +C, +E, +A, and -N, which clearly supports the rationale for testing EI-GFP associations directly.

Exploratory Factor Analysis

Trait EI measures. We used principal axis factoring (PAF) to extract the first unrotated factor from the meta-analytic and corrected matrix with the Big Five and trait EI measures, which showed 35% shared variance in the underlying components. Factor loadings were .43, .61, .58, .55, and -.64, for O, C, E, A, and N, respectively. The trait EI loading was .71, suggesting that it is strongly representative of this factor.

The matrix based on uncorrected correlations between the Big Five and trait EI was similar to the corrected matrix. The first factor showed 27% shared variance, with Big Five loadings of .36, .52, .49, .46, and - .55, for O, C, E, A, and N, respectively. The loading of trait EI on this factor was .69.

Additional analyses, focusing on the TEIQue, yielded a first unrotated factor (PAF) comprising 41% shared variance, and Big Five loadings of .42, .57, .60, .53, and -.68, for O, C, E, A, and N, respectively. Trait EI, measured with the TEIQue, loaded .91 on this factor. For the uncorrected TEIQue correlations, results yielded a first factor comprising 33% of shared variance, and Big Five loadings of .34, .49, .51, .44, and -.60, for O, C, E, A, and N, respectively. The trait EI loading was .90. Thus, PAFs of the corrected as well as of the uncorrected matrices suggest that the GFP and TEIQue trait EI are very strongly related.

Parallel analyses focusing on the WLEIS yielded a first factor accounting for 30% of shared variance and Big Five loadings of .40, .66, .51, .57, and -.66, for O, C, E, A, and N, respectively. Trait EI loaded .47 on this factor, which is approximately 50% smaller than the corresponding loading obtained with the TEIQue. The uncorrected correlations with the WLEIS yielded a factor accounting for 23% shared variance, Big Five loadings on this factor were .33, .58, .41, .47, and -.58, for O, C, E, A, and N, respectively, while trait EI had a loading of .46.

Ability EI. Similar PAFs conducted on the ability EI matrix showed that the first unrotated factor accounted for 28% of shared variance with Big Five loadings of .43, .62, .56, .59, and -.61, for O, C, E, A, and N, respectively. Ability EI loaded .23 on this factor. This was in the expected direction, but implied only a moderate relationship with the GFP. The ability EI matrix with uncorrected correlations yielded a first unrotated factor accounting for 20% shared variance with Big Five loadings of .36, .54, .47, .49, and -.52 for O, C, E, A, and N, respectively. Ability EI loaded .22 on this factor.

Confirmatory Factor Analysis (CFA)

Trait EI measures. We first tested a hierarchical model in which the Big Five load on two higher-order factors, Stability and Plasticity (or Alpha and Beta), which, in turn, load on the GFP, which is correlated to a latent trait EI factor. The overall fit indices of this

(hierarchical) model were acceptable (see Table 3). Trait EI correlated *r* = .86 with the GFP, confirming the large overlap between the two constructs (see Figure 2). The same model, based on uncorrected (observed) correlations as input matrix returned similar results in terms of goodness of fit (Table 3) and a trait EI-GFP correlation of .84.

Alternative models in which the Big Five were modeled as independent dimensions each separately related to trait EI, or in which two higher-order factors above the Big Five related to trait EI (see Figures 1a to 1c), fitted the data less well. An overview of the statistics and fit indices of the tested models is provided in Table 3.

The hierarchical model depicted in Figure 2 that provided the best fit for trait EI was also used to model the relations of the GFP with TEIQue EI and WLEIS EI. For the TEIQue, initially neither the corrected nor the uncorrected matrix led to a permissible solution due to the presence of several Heywood cases. Specifically, there were negative variances and the pathway between the GFP and trait EI was > 1. This indicated that some of the assumptions in the model may have been violated. We further tested this model to trace the source of the non-convergence and found that it was not viable to model the GFP and TEIQue-EI as separate factors. Once we set the GFP and TEIQue EI factors to equality (i.e., the path = 1, and no error variance) the model was permissible and showed a rather good fit (see Table 4). This outcome is fully in line with our hypothesis that the GFP and trait EI show large overlap (and in this data matrix should be considered identical).

Analyses with the WLEIS led to acceptable models with EI-GFP correlations of .56 and .55, for the corrected and uncorrected matrices, respectively. The fit indices of these models are also shown in Table 4.

Ability EI measures. The hierarchical GFP model in the trait EI SEM (see Figure 2) also showed the best fit for ability EI (Table 5). Using the corrected matrix, ability EI correlated *r* = .28 with the GFP. Using the uncorrected matrix, it correlated *r* = .27, which can

be classified as a moderate effect size. Alternative models with separate Big Five dimensions directly relating to ability EI or separate higher-order factors directly relating to ability EI showed lower fit indices (see Table 5 for details).

Discussion

Based on meta-analytic data from dozens of studies resulting in a very large sample, the present study examined the associations between the GFP and various measures of EI. The results from the EFAs and CFAs converged, yielding several important conclusions about personality in relation to trait and ability EI.

The first is that trait EI strongly overlaps, and is perhaps substantively synonymous with the GFP. The EFAs showed that trait EI neatly fits in the same factor space as the other Big Five dimensions (see also Petrides et al., 2007). In all cases, trait EI was the highest-loading indicator on the first unrotated factor. CFAs provided further evidence of the strong overlap reflected in a disattenuated correlation with the GFP of no less than $r = .86$. To put this value in context, Big Five dimensions measured with different instruments typically correlate between $r = .40$ to .80 (e.g., Connelly & Ones, 2010), even though they are explicitly designed and assumed to measure *the same* construct (e.g., extraversion measured with the NEO-R and extraversion measured with the BFI). In addition, test-retest correlations of .80 or higher are considered adequate proof of the reliability of a single instrument. Given the strong meta-analytic correlation between the GFP and trait EI in the present study, it seems warranted to conclude that the two constructs are very closely related. This is an important breakthrough that can help elucidate the conceptual nature of the GFP and integrate its burgeoning literature within the more established literature on trait EI.

Further analyses showed that TEIQue EI had the strongest overlap with the GFP, while WLEIS-EI overlap was somewhat lower. One likely reason for the lower, but still very substantial, correlation between WLEIS-based EI and the GFP is that the former is based on a

fairly restricted range of behavior; mainly understanding and regulating emotions (Law et al., 2004). The TEIQue, on the other hand, provides comprehensive coverage of the trait EI sampling domain, which integrates a range of affective aspects of personality (Petrides et al., 2007). Considering the broad coverage of the TEIQue, it is theoretically encouraging that it is strongly related to the GFP, which itself is a broad construct hypothesized to capture socio-emotional adjustment and effectiveness (Dunkel & Van der Linden, 2014; Loehlin, 2012; Rushton et al., 2008).

Another important finding in the present meta-analysis was that ability EI showed meaningful correlations with the GFP, in the order of $r = .28$. Notably, this value is rather similar to typical correlations between trait and ability EI (Brackett & Mayer, 2003; Brannick et al., 2009). This finding provides further, albeit indirect, clues that the GFP and trait EI are highly alike.

The overlap with the GFP was clearly lower for ability EI than for trait EI. In our view, it would be too optimistic to interpret this finding as evidence of discriminant validity. Discriminant validity must be evaluated as a specific aspect of the much broader notion of construct validity (Cronbach & Meehl, 1955), which also involves strong convergent, predictive, and criterion validity. Several researchers have argued that mainstream ability EI measures, of which the MSCEIT is currently the leading one, show limitations which include an underdeveloped nomological network (Fiori et al., 2014; Maul, 2012), confounding with vocabulary size (Wilhem, 2005), tacit knowledge about emotions (Austin, 2010; Freudenthal, Neubauer, & Haller, 2008), and stereotypical judgment (O'Sullivan, 2007). An unknown combination of the foregoing limitations, in conjunction with methodological issues, such as the file-drawer problem or ambient correlation noise, may well provide alternative explanations for the modest correlations observed with other variables, including the GFP in our meta-analysis. Even though the GFP-ability EI correlation was moderate, it is

nevertheless in line with the notion that the GFP reflects a social effectiveness factor (Dunkel & Van der Linden, 2014; Loehlin, 2012). Specifically, high-GFP individuals score higher on the MSCEIT, suggesting greater social knowledge and an ability to regulate behavior in order to achieve social goals.

The present findings support general observations regarding the robustness of the GFP as a function of its extraction method. The EFA and CFA results clearly converged, once again lending support to the idea that 'any GFP is a good GFP' (see Introduction) and that cutting-edge statistical techniques yield GFPs that, more or less, have the same properties, in terms of factor loadings and criterion validities, as GFPs extracted by means of more traditional methods (e.g., PAF).

Considering the firm evidence for the overlap between the GFP and EI, our findings give rise to two important questions 1) what are the implications of this overlap, and 2) how to interpret this GFP-EI link.

Regarding the first question, the conclusion can be drawn that researchers who adopt the view that trait EI is substantive would also have to conclude the same for the GFP and vice versa. At the global level, the empirical overlap between the two constructs is so large that it is impossible to treat them as theoretically independent. Because we favor the interpretation that the GFP and trait EI indeed reflect substantive factors, it follows that high-GFP individuals may be genuinely characterized by emotionally intelligent behavior across situations. The emotionally adjusted and socially desirable actions of high-GFP individuals are cardinal aspects of their personality, giving rise to substantial intercorrelations between personality dimensions and ultimately resulting in a general factor, the GFP.

A reoccurring question in the literature is how EI relates to established personality hierarchies (Petrides & Furnham, 2001; Vernon et al., 2008; Veselka et al., 2009; Zeidner et al., 2008). The effort to integrate EI within extant taxonomies of personality began several

years before the revived interest in a general factor of personality, and was established (e.g., Petrides & Furnham, 2001; Petrides et al., 2007) around the same time as the GFP literature started to grow (Musek, 2007; Rushton et al., 2008). Petrides et al. (2007) concluded that trait EI is a distinct (because it can be isolated in personality space) and compound (because it is partially determined by the higher-order personality dimensions) construct that lies at the lower levels of personality hierarchies (because it is oblique rather than orthogonal to the Giant Three and Big Five). Linking the construct to the main body of personality literature eventually established trait EI theory as a research area of its own (500+ papers in Web of Science as of 2016).

The advent of GFP research rekindled debate on personality structure and brought to the forefront dormant questions about structure that, despite a seeming consensus on a five-factor solution, have long been lurking in the background (e.g., Block, 1995; Stankov, 2005). The GFP hypothesis inspired new research on the relationships between personality and EI (e.g., Pérez-González & Sanchez-Ruiz, 2014; Van der Linden et al., 2012). This research along with the data presented herein, indicate that trait EI may be quite similar to the GFP as regards its breadth of influence on external criteria and narrower personality facets. High-trait EI individuals are more likely to behave in socially effective ways, which will ultimately be reflected in higher scores on personality facets like friendliness, dependability, and sociability.

For ability EI, its relationship with the hierarchical structure of personality is less clear and the topic of debate in several studies (Zeidner et al., 2008). However, this construct too shows a moderate (≈ .30) relationship with the GFP, in line with the hypothesis that high-GFP individuals are socially effective.

Implications for incremental validity

Another important question regarding the GFP and EI is the extent to which they show incremental validity above and beyond well-established constructs such as the Big Five (Chang et al., 2011; O'Boyle et al., 2011). It is outside the remit of this paper to go into a detailed discussion of these questions, which have been thoroughly addressed in previous studies (e.g., Andrei et al., 2016; Joseph & Newman, 2010; Joseph, Jin, Newman, & O'Boyle, 2014; O'Boyle et al., 2011; Petrides et al., 2007; Siegling, Vesely, Petrides, & Saklofske, 2015). Here we would like to discuss the implications of the current findings in relation to incremental validity to avoid knee-jerk interpretations that may fuel fresh requests, this time for demonstrating that the GFP can predict variance over and above EI, or that the GFP-EI overlap remains after controlling for Big Five variance.

Given our demonstrations about how the GFP and EI relate to lower-order personality dimensions, incremental validity analyses would be largely unnecessary. By controlling for lower-order personality dimensions, one would already remove much of the true variance of the GFP or EI that is reflected in these personality dimensions, thus leading to a psychologically uninformative statistical competition between lower-order personality dimensions and higher-order constructs, such as the GFP.

A juxtaposition with data from the cognitive domain may be illustrative here. The general factor *g* is assumed to be strongly present in each of the lower-order and specific cognitive dimensions, such as verbal or numerical abilities (Jensen, 1998). There is a consensus that it would not be theoretically meaningful to examine whether the *g* factor predicts beyond specific cognitive dimensions because that would involve throwing out the baby with the bathwater in the very first step of the analysis (Jensen, 1988; Ree, Earles, & Teachout, 1994). Similar arguments would apply for the GFP and trait EI, although, in the latter case the requests on the incremental validity has been convincingly settled (Andrei et al., 2016; Petrides et al., 2007). Another question is that if the GFP and trait EI share so much

of their variance, one might wonder what they add in terms of incremental value over and above each other. Regarding this, it has to be emphasized that the overlap between the two constructs is not complete at the level of their sampling domains. There is a differential in the area of 10-20% suggesting that some variance in the GFP is not affect-related, while some affect-related variance in trait EI is not represented in existing personality hierarchies (Andrei et al., 2016). This differential may be partly responsible for the incremental validity that trait EI shows in relation to personality and related constructs, such as mood and coping styles (Andrei et al., 2016; Andrei & Petrides, 2013). For example, Joseph and Newman (2010) found that trait EI explained an additional 14% of the variance in job performance beyond the Big Five and cognitive ability measures, and O'Boyle et al. (2011) found that trait EI explained an additional 7% of the variance in job performance beyond those measures.

Limitations

While this is by far the most extensive meta-analysis on the relationships between personality and EI, certain limitations need to be acknowledged. First, our meta-analytic data did not include measures of social desirability or cognitive ability (IQ). Therefore, we were unable to control for their effects on GFP-EI relationships.

Second, even though it has now been established that the GFP can be extracted from various personality models and measures (e.g., Loehlin, 2012) we extracted the GFP from the Big Five personality dimensions only. Nevertheless, this limitation is perhaps not crucial since it has been shown that GFPs from different personality measures assess the same construct (Loehlin, 2012; Van der Linden et al., 2011).

A third limitation we wish to mention is that the meta-analysis was not gender-specific because very few of the primary studies reported the requisite information. However, there are no indications that gender strongly influences the correlations between EI and the GFP. For example, Siegling, Saklofske, Vesely, and Nordstokke (2012) analyzed five different samples

and concluded that, overall, there are no gender differences in the associations between trait EI and the Big Five. Furthermore, McIntyre (2010) indicated that there may be some gender differences with regard to specific EI facets, but at the global EI level, associations tend to be similar.

Finally, we did not include studies comparing self- with other-ratings of personality and EI because we are not aware of any such studies in the existing literature. There are studies that have examined self-other correlations within the Big Five (Connely & Ones, 2010; Oh, Wang, & Mount, 2011) or within EI (Guliandolo, Costa, Cozzocrea, Larcan, & Petrides, 2015; Petrides, Niven, & Mouskovati, 2006; Van Rooy & Viswesvaran, 2004), but not in tandem. Future research may well want to address this gap in the literature in order to establish whether self- and other-ratings of the GFP and EI yield similar levels of overlap as those reported in our meta-analysis.

Concluding Remarks

For researchers interested in exploring the nature of the GFP, knowing that it overlaps with trait and ability EI is useful and in line with the hypothesis that it reflects emotional adjustment and social effectiveness (Dunkel & Van der Linden, 2014; Loehlin, 2012; Rushton et al., 2008; Van der Linden et al., 2016). Scoring high or low on the GFP would not necessarily indicate a good versus bad personality (Rushton & Irwing, 2011). Instead, it would mainly reflect the extent to which one uses emotional knowledge and skills in order to cooperate with others and obtain personal goals. Note that such knowledge and skills can, in principle, be used for ethical (e.g., maintaining friendships and working in teams) or unethical (e.g., deceiving and corrupting others) causes. Thus, similar to EI, the GFP can have a ‘bright’ as well as a ‘dark’ side (Côté, DeCelles, McCarty, Van Kleef, & Hideg, 2011).

For researchers whose main interest is in EI, knowing how this construct relates to the highest-order factor in personality connects it to mainstream models in differential

psychology, in this case the Big Five. Although there are different opinions on the nature and measurement of EI (Côté, 2010; Joseph & Newman, 2010; O'Boyle et al., 2011; Petrides, 2010), a general and consistent tendency to act in emotionally adjusted and socially effective ways, either as a trait or an ability, would generally be considered an important part of one's personality. Personality obviously has much to do with how one deals with our emotions and with potentially stressful events (e.g., emotional stability), how one deals with other people (e.g., sociability), and whether one is able to motivate oneselve in order to reach our goals (e.g., conscientiousness). These aspects of personality are hypothesized to be partly under the influence of EI. When consensus has been reached about the boundaries of EI (e.g., Petrides, Sevdalis, & Mason, 2012), then it will become possible to recast core personality variance currently scattered across multiple dimensions as part of an integrated EI model with obvious interpretational benefits. In the fullness of time, instead of having to rely on theoretically fuzzy linear combinations of the Big Five factors, we will be able to utilize coherent constructs that have been specifically aligned to the core psychological processes underlying the emotional and social aspects of human behavior.

References

(Articles with an * are used in the meta-analysis)

*Afolabi, O. A., & Ehigie, B. O. (2005). Psychological diversity and team interaction processes: A study of oil-drilling work teams in Nigeria. *Team Performance Management, 11,* 280-301. doi: 10.1108/13527590510635161

Andrei, F., & Petrides, K. V. (2013). Trait emotional intelligence and somatic complaints with reference to positive and negative mood. *Psihologija, 46,* 5-15. doi: 10.2298/PSI1301005A

Andrei F., Siegling A. B., Aloe, A. M., Baldaro, B., & Petrides, K. V. (2016). The incremental validity of the Trait Emotional Intelligence Questionnaire (TEIQue): A systematic review and meta-analysis. *Journal of Personality Assessment,* in press.

Anusic, I, Schimmack, U., Pinkus, R. T., & Lockwood, P. (2009). The nature and structure of correlations among Big Five ratings: The Halo-Alpha-Beta model. *Journal of Personality and Social Psychology, 97,* 1142-1156. doi: 10.1037/a0017159

* Arteche, A., Chamorro-Premuzic, T., Furnham, A., & Crump, J. (2008). The relationship of trait EI with personality, IQ and sex in a UK sample of employees. *International Journal of Selection and Assessment, 4,* 421-426. doi: 10.1111/j.1468-2389.2008.00446.x

Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review, 11,* 150-166. doi: 10.1177/1088868306294907

Ashton, M. C., Lee, K., Goldberg, L. R. & De Vries, R. E. (2009). Higher-order factors of personality: Do they exist? *Personality and Social Psychology Review, 13,* 79-91. doi: 10.1177/1088868309338467

* Atta, M., Ather, M., & Bano, M. (2013). Emotional intelligence and personality traits among university teachers: Relationship and gender differences. *International Journal of Business and Social Science, 4*, 253-259. doi: 9b0470bdace9b33267956dc58567f91b

Austin , E. J.(2010). Measurement of ability emotional intelligence: Results for two new tests. *British Journal of Psychology*, 101, 563 – 578. doi: 10.1348/000712609X474370

* Austin, E. J., Dore, T. C. P., & O'Donovan, K. M. (2008). Associations of personality and emotional intelligence with display rule perceptions and emotional labour. *Personality and Individual Differences, 44*, 679-688. doi: 10.1016/j.paid.2007.10.001

* Austin, E. J., Farrelly, D., Black, C., & Moore, H. (2007). Emotional intelligence, machiavellianism and emotional manipulation: Does EI have a dark side? *Personality and Individual Differences, 43*, 179-189. doi:10.1016/j.paid.2006.11.019

* Austin, E. J., Saklofske, D. H., & Egan, V. (2005). Personality, well-being and health correlates of trait emotional intelligence. *Personality and Individual Differences, 38*, 547-558. doi: 10.1016/j.paid.2004.05.009

Bäckström, M., Björklund, F., & Larsson, M. R. (2009). Five-factor inventories have a major general factor related to social desirability which can be reduced by framing items neutrally. *Journal of Research in Personality, 43*, 335-344. doi: 10.1016/j.jrp.2008.12.013

* Bastian, V. A., Burns, N. R., & Nettelbeck, T. (2005). Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities. *Personality and Individual Differences, 39*, 1135-1145. doi: 10.1016/j.paid.2005.04.006.

* Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin, 29*, 1147-1158. doi: 10.1177/0146167203254596

* Brackett, M. A., Mayer, J. D., & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behaviour. *Personality and Individual Differences, 36*, 1387-1402. doi:10.1016/S0191-8869(03)00236-8

Brannick, M. T., Wahi, M. M., Arce, M., Johnson, H. A., Nazian, S., & Goldin, S. B. (2009) Comparisons of trait and ability emotional intelligence measures in medical students. *Medical education, 43*, 1062-1068. doi: 10.1111/j.1365-2923.2009.03430.x

Block, J. (1995). A contrarian view of the five-factor approach to personality description. *Psychological bulletin, 117*, 187-215. doi: 10.1037/0033-2909.117.2.187

* Byrne, J. C., Dominick, P. G., Smither, J. W., & Reilly, R. R. (2007). Examination of the discriminant, convergent, and criterion-related validity of self-ratings on the emotional competence inventory. *International Journal of Selection and Assessment, 15*, 341-353. doi: 10.1111/j.1468-2389.2007.00393.x

Carroll, J. B. (1991). No demonstration that g is not unitary, but there's more to the story: Comment on Kranzler and Jensen. *Intelligence, 15*, 423-436. doi: 10.1016/0160-2896(91)90004-W

* Caruso, D. R., Mayer, J. D., & Salovey, P. (2002). Relation of an ability measure of emotional intelligence to personality. *Journal of Personality Assessment, 79*, 306-320. doi: 10.1207/S15327752JPA7902_12

Caspi, A., Houts, R. M., Belsky, D. W., Goldman-Mellor, S. J., Harrington, H., Israel, S., Meier, M. H., Ramrakha, S., Shalev, I., Poulton, R., & Moffitt, T. E. (2014). The *p* factor: one general psychopathology factor in the structure of psychiatric disorders? *Clinical Psychological Science, 2*, 119–137. doi: 10.1177/2167702613497473

* Cavazotte, F., Moreno, V., & Hickmann, M. (2012). Effects of leader intelligence, personality and emotional intelligence on transformational leadership and managerial performance. *The Leadership Quarterly, 23*, 443-455. doi: 10.1016/j.leaqua.2011.10.003

* Chamorro-Premuzic, T., Bennett, E., & Furnham, A. (2007). The happy personality: Mediational role of trait emotional intelligence. *Personality and Individual Differences, 42,* 1633-1639. doi:10.1016/j.paid.2006.10.029

* Chamorro-Premuzic, T., Swami, V., & Cermakova, B. (2012). Individual differences in music consumption are predicted by uses of music and age rather than emotional intelligence, neuroticism, extraversion or openness. *Psychology of Music, 40*, 285-300. doi:10.1177/0305735610381591

Chang, L., Connelly, B. S., & Geeza, A. A. (2012). Separating method factors and higher order traits of the Big Five: A meta-analytic multitrait–multimethod approach. *Journal of Personality and Social Psychology, 102,* 408-426. doi: 10.1037/a0025559

* Chapman, B. P. (2005). *Emotional intelligence at mid-life: A cross sectional investigation of structural variance, social correlates, and relationship to established personality and ability taxonomies.* Unpublished doctoral dissertation, University of North Texas, Denton, United States.

* Chapman, B. P., & Hayslip, B. (2005). Incremental validity of a measure of emotional intelligence. *Journal of Personality Assessment, 85,* 154-169. doi:10.1207/s15327752jpa8502_08.

* Charbonneau, D., & Nicol, A. A. M. (2002). Emotional intelligence and leadership in adolescents. *Personality and Individual Differences, 33*, 1101-1113. doi:10.1016/S0191-8869(01)00216-1

* Ciarrochi, J. V., Chan, A. Y. C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences, 28,* 539-561. doi:10.1016/S0191-8869(99)00119-1

* Collins, E., Freeman, J., & Chamarro-Premuzic, T. (2012). Personality traits associated with problematic and non-problematic massively multiplayer online role playing game use. *Personality and Individual Differences, 52*, 133-138. doi:10.1016/j.paid.2011.09.015

Connelly, B. S., & Ones, D. S. (2010). Another perspective on personality: Meta-analytic integration of observers‟ accuracy and predictive validity. *Psychological Bulletin, 136*, 1092-1122. doi: 10.1037/a0021212

Côté, S. (2010). Taking the "intelligence" in emotional intelligence seriously. *Industrial and organizational psychology: Perspectives on science and practice, 3*, 127-130. doi: 10.1111/j.1754-9434.2010.01211.x

Côté, S. (2014). Emotional intelligence in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 459-488. doi: 10.1146/annurev-orgpsych-031413-091233

* Côté, S., & Miners, C. T. H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly, 51*, 1-28. doi: 10.2189/asqu.51.1.1

Côté, S. DeCelles, K. A., McCarthy, J. M.., Van Kleef, G. A. & Hideg, I.(2011). The Jekyll and Hide of emotional Intelligence: emotion-regulation knowledge facilitates both prosocial and interpersonally deviant behavior. *Psychological Science*, *22*, 1073-1080. doi: 10.1177/0956797611416251

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281–302. doi: 10.1037/h0040957

* Davies, M., Stankov, L., & Roberts, R. D. (1998). Emotional intelligence: In search of an elusive construct. *Journal of Personality and Social Psychology, 75*, 989-1015. doi: 10.1037/0022-3514.75.4.989

* Davis, S. K., & Humphrey, N. (2012). The influence of emotional intelligence (EI) on coping and mental health in adolescence: Divergent roles for trait and ability EI. *Journal of Adolescence, 35*, 1369-1379. doi:10.1016/j.adolescence.2012.05.007

Davies, S. E., Connelly, B. S., Ones, D. S., & Birkland. A. S. (2015). The General Factor of Personality: The "Big One," a self-evaluative trait, or a methodological gnat that won't go away? *Personality and Individual Differences, 81*, 13 – 22. doi:10.1016/j.paid.2015.01.006

* Dawda, D., & Hart, S. D. (2000). Assessing emotional intelligence: Reliability and validity of the bar-on emotional quotient inventory (EQ-i) in university students. *Personality and Individual Differences, 28*, 797-812. doi:10.1016/S0191-8869(99)00139-7

* Day, A. L., & Carroll, S. A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviours. *Personality and Individual Differences, 36*, 1443-1458. doi:10.1016/S0191 - 8869(03)00240-X

* Day, A. L., Therrien, D. L., & Carroll, S. A. (2005). Predicting psychological health: Assessing the incremental validity of emotional intelligence beyond personality, type A behaviour, and daily hassles. *European Journal of Personality, 19*, 519-536. doi:10.1002/per.552

Depue, R. A., & Collins, P. F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. *Behavioral and Brain Sciences, 22*, 491-569.

* De Raad, B. (2005). The trait-coverage of emotional intelligence. *Personality and Individual Differences, 38*, 673-687. doi:10.1016/j.paid.2004.05.022.

De Vries, R. (2011). No evidence for a general factor of personality in the HEXACO personality inventory. *Journal of Research in Personality*, 45, 229–232. doi:10.1016/j.jrp.2010.12.002

DeYoung, C. G., Peterson, J. B., & Higgins, D. M. (2002). Higher-order factors of the Big Five predict conformity: Are there neuroses of health? *Personality and Individual Differences, 30*, 533-552. doi:10.1016/S0191-8869(01)00171-4

* Di Fabio, A., Palazzeschi, L., & Bar-On, R. (2012). The role of personality traits, core self-evaluation, and emotional intelligence in career decision-making difficulties. *Journal of Employment Counseling, 49*, 118-129. doi: 10.1002/j.2161-1920.2012.00012.x

* Di Fabio, A., Palazzeschi, L., Asulin-Peretz, L., & Gati, I. (2013). Career indecision versus indecisiveness: Associations with personality traits and emotional intelligence. *Journal of Career Assessment, 21*, 42-56. doi:10.1177/1069072712454698

* Di Fabio, A., & Kenny, M. E. (2011). Promoting emotional intelligence and career decision making among Italian high school students. *Journal of Career Assessment, 19*, 21-34. doi:10.1177/1069072710382530

* Di Fabio, A., & Palazzeschi, L. (2009). Emotional intelligence, personality traits and career decision difficulties. *International Journal for Educational and Vocational Guidance, 9*, 135-146. doi: 10.1002/j.2161-1920.2012.00012.x

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology, 73*, 1246– 1256. doi: 10.1037/0022-3514.73.6.1246

* Douglas, C., Dwight, F. D., & Ferris, G. R. (2004). Emotional intelligence as a moderator of the relationship between conscientiousness and performance. *Journal of Leadership & Organizational Studies, 10*, 2-13. doi:10.1177/107179190401000301

* Downey, L. A., Lee, B., & Stough, C. (2011). Recruitment consultant revenue: Relationships with IQ, personality, and emotional intelligence. *International Journal of Selection and Assessment, 19*, 280-286. doi:10.1111/j.1468-2389.2011.00557.x

* Dulewicz, V., & Higgs, M. (1999). Can emotional intelligence be measured and developed? *Leadership & Organization Development Journal, 20*, 242-253. doi:10.1108/01437739910287117

Dunkel, C. S. (2013). The general factor of personality and general intelligence: evidence for a substantial association. *Intelligence, 41*, 423-427.

Dunkel, C. S., Cabeza De Baca, T., Woodley, M. A., & Fernandes, H. B. F. (2014). The General Factor of Personality and general intelligence: Testing hypotheses from Differential-K, Life History Theory, and strategic differentiation–integration effort. *Personality and Individual Differences, 61–62*, 13-17. doi:10.1016/j.paid.2013.12.017

Dunkel, C. S., & Van der Linden, D. (2014). Evidence for the general factor of personality as social effectiveness. *Personality and Individual Differences, 64,* 147-151. doi:10.1016/j.paid.2014.02.030

Dunkel, C. S., Summerville, L. A., Mathes, E. W., Kesserling, S. N., Yockey, S. D., Reeve, S. D., & Stolmeier, J. M. (2014). Using the Prisoner's Dilemma Task to examine the cooperative and social effectiveness hypotheses of the General Factor of Personality. *Human Ethology Bulletin, 29*, 14-22.

Dunkel, C. S., Nedelec, J., & Van der Linden, D. (2014). Predicting the general factor of personality: From adolescence though adulthood. *Human Ethology Bulletin, 29*, 4-12.

* Emery, C. (2012). Uncovering the role of emotional abilities in leadership emergence. A longitudinal analysis of leadership networks. *Social Networks, 34*, 429-437. doi:10.1016/j.socnet.2012.02.001

* Extremera, N., Ruiz-Aranda, D., Pineda-Galán, C., & Salguero, J. M. (2011). Emotional intelligence and its relation with hedonic and eudaimonic well-being: A prospective study. *Personality and Individual Differences, 51,* 11-16. doi:10.1016/j.paid.2011.02.029

Eysenck, H. J. & Eysenck, S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire*, Hodder & Stoughton, London.

* Ferguson, F. J., & Austin, E. J. (2010). Associations of trait and ability emotional intelligence with performance on theory of mind tasks in an adult sample. *Personality and Individual Differences, 49,* 414-418. doi:10.1016/j.paid.2010.04.009

* Ferrando, M., Prieto, M. D., Almeida, L. S., Ferrándiz, C., Bermejo, R., López-Pina, J. A., & Fernández, M. (2011). Trait emotional intelligence and academic performance: Controlling for the effects of IQ, personality, and self-concept. *Journal of Psychoeducational Assessment, 29,* 150-159. doi:10.1177/0734282910374707

Figueredo, A.J., Vásquez, G., Brumbach, B.H., & Schneider, S.M.R. (2004). The heritability of life history strategy: The K-factor, covitality, and personality. *Social Biology, 51,* 121-143. doi: 10.1080/19485565.2004.9989090

Figueredo, A. J., Vasquez, G., Brumbach, B. H., Schneider, S. M. R., Sefcek, J. A., Tal, I. R. (2006). Consilience and Life History Theory: From genes to brain to reproductive strategy. *Developmental Review, 26,* 243-275.

Figueredo, A.J., Vásquez, G., Brumbach, B.H., & Schneider, S. M. R. (2007). The K-factor, covitality, and personality: A psychometric test of life history theory. *Human Nature, 18,* 47-73. doi:10.1016/j.dr.2006.02.002

Figueredo, A.J. & Rushton, J. P. (2009). Evidence for shared genetic dominance between the general factor of personality, mental and physical health, and life history traits. *Twin Research and Human Genetics, 12,* 555-563. doi: 10.1375/twin.12.6.555

Figueredo, A. J., Wolf, P.S.A. Gladden, P.R., Olderbak, S.G., Andrzejczak, D.J., & Jacobs, W. J. (2011). Ecological approaches to personality. In Buss, D.M., & Hawley, P.H., (Eds.). *The Evolution of Personality and Individual Differences*. New York, NY: Oxford University Press.

* Fiori, M., & Antonakis, J. (2011). The ability model of emotional intelligence: Searching for valid measures. *Personality and Individual Differences, 50*, 329-334. doi:10.1016/j.paid.2010.10.010.

Fiori M, Antonietti J. P., Mikolajczak, M., Luminet, O., Hansenne, M., et al. (2014) What is the ability emotional intelligence test (MSCEIT) good for? An evaluation using item response theory. PLoS ONE 9: e98827. doi:10.1371/journal.pone.0098827

Fisher, R. A. (1954). *The genetical theory of natural selection (2nd rev. ed.),* New York: Dover.

Fiske, D. W. (1949). Consistency of the factorial structures of personality ratings from different sources. *Journal of Abnormal and Social Psychology. 44*, 329-344. doi: 10.1037/h0057198

* Freudenthaler, H. H., Neubauer, A. C., Gabler, P., Scherl, W. G., & Rindermann, H. (2008). Testing and validating the Trait Emotional Intelligence Questionnaire (TEIQue) in a German-speaking sample. *Personality and Individual Differences, 45,* 673-678. doi:10.1016/j.paid.2008.07.014

* Freudenthaler, H. H., & Neubauer, A. C. (2005). Emotional intelligence: The convergent and discriminant validities of intra- and interpersonal emotional abilities. *Personality and Individual Differences, 39*, 569-579. doi:10.1016/j.paid.2005.02.004.

Freudenthaler, H. H., Neubauer, A. C., & Haller, U. (2008). Emotional intelligence: Instruction effects and sex differences in emotional management abilities. *Journal of Individual Differences*, 29, 105–115. doi: 10.1027/1614-0001.29.2.105

* Fukunishi, I., Wise, T. N., Sheridan, M., Shimai, S., Otake, K., Utsuki, N., & Uchiyama, K. (2001). Validity and reliability of the Japanese version of the Emotional Intelligence Scale among college students and psychiatric outpatients. *Psychological Reports, 89,* 625-632. doi: 10.2466/pr0.2001.89.3.625

* Gallagher, E. N., & Vella-Brodrick, D. A. (2008). Social support and emotional intelligence as predictors of subjective well-being. *Personality and Individual Differences, 44,* 1551-1561. doi:10.1016/j.paid.2008.01.011

Galton, F. (1887). Good and bad temper in English families. *Fortnightly Review*, *42*, 21–30.

* Gannon, N., & Ranzijn, R. (2005). Does emotional intelligence predict unique variance in life satisfaction beyond IQ and personality? *Personality and Individual Differences, 38,* 1353-1364. doi:10.1016/j.paid.2004.09.001.

* Ghiabi, B., & Besharat, M. A. (2011). Emotional intelligence, alexithymia, and interpersonal problems. *Social and Behavioral Sciences, 30,* 98-102. doi:10.1016/j.sbspro.2011.10.020

* Godse, A. S., & Thingujam, N. S. (2010). Perceived emotional intelligence and conflict resolution styles among information technology professionals: Testing the mediating role of personality. *Singapore Management Review, 32,* 69-83.

Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicon. *Journal of Personality and Social Psychology*, *59*, 1216-1229.

Gottfredson, L. S. (1997). Why g matters: the complexity of daily life. *Intelligence, 24*, 79-132.

* Greven, C., Chamorro-Premuzic, T., Arteche, A., & Furnham, A. (2008). A hierarchical integration of dispositional determinants of general health in students: The Big Five, trait

emotional intelligence and humour styles. *Personality and Individual Differences, 44*, 1562-1573. doi:10.1016/j.paid.2008.01.012

* Grubb, W. L., & McDaniel, M. A. (2007). The fakability of Bar-On's emotional quotient inventory short form: Catch me if you can. *Human Performance, 20*, 43-59. doi:10.1080/08959280709336928

Gugliandolo, M. C., Costa, S., Cuzzocrea, F., Larcan, R., & Petrides, K. V. (2015). Trait emotional intelligence and behavioral problems among adolescents: A cross-informant design. *Personality and Individual Differences, 74*, 16-21. doi:10.1016/j.paid.2014.09.032

* Hafen, C. A., Singh, K., & Laursen, B. (2011). The happy personality in India: The role of emotional intelligence. *Journal of Happiness Studies, 12*, 807-817. doi:10.1007/s10902-010-9228-4.

Hayduk, L.A. (1987). *Structural equations modeling with LISREL*. Baltimore, MD: Johns Hopkins University Press.

Hopwood, C. J., Wright, A. G. C., & Donnellan, M. B. (2011). Evaluating the evidence for the general factor of personality across multiple inventories. *Journal of Research in Personality*, *45*, 68-478. doi:10.1016/j.jrp.2011.06.002

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55. doi: 10.1080/10705519909540118

* Iliescu, D., Ilie, A., Ispas, D., & Ion, A. (2013). Examining the psychometric properties of the Mayer-Salovey-Caruso Emotional Intelligence Test: Findings from an Eastern European culture. *European Journal of Psychological Assessment, 29*, 121-128. doi: 10.1027/1015-5759/a000132

* Iliescu, D., Ilie, A., Ispas, D., & Ion, A. (2012). Emotional intelligence in personnel selection: Applicant reactions, criterion, and incremental validity. *International Journal of Selection and Assessment, 20,* 347-358. doi:10.1111/j.1468-2389.2012.00605.x

Irwing, P., Booth, T., Nyborg, H., & Rushton, J.P. (2012). Are *g* and the General Factor of Personality (GFP) correlated? *Intelligence, 40,* 296-305.

Irwing, P. (2013). The general factor of personality: Substance or artefact? *Personality and Individual Differences, 55,* 534-542.

* Ivcevic, Z., Brackett, M. A., & Mayer, J. D. (2007). Emotional intelligence and emotional creativity. *Journal of Personality, 75,* 199-236. doi:10.1111/j.1467-6494.2007.00437.x

* James, C., Bore, M., & Zito, S. (2012). Emotional intelligence and personality as predictors of psychological well-being. *Journal of Psychoeducational Assessment, 30,* 425-438. doi:10.1177/0734282912449448.

Jensen, A. R. (1998). *The g factor: The science of mental ability*. London: Praeger. doi: 10.1111/j.1467-6494.1996.tb00522.x

Jensen, A. R., & Weng, L. (1994). What is a good *g*? *Intelligence, 18*, 231-258, doi:10.1016/0160-2896(94)90029-9

* Johnson, S. J., Batey, M., & Holdsworth, L. (2009). Personality and health: The mediating role of trait emotional intelligence and work locus of control. *Personality and Individual Differences, 47,* 470-475. doi:10.1016/j.paid.2009.04.025.

Joseph, D. L., Jin, J., Newman, D. A., & O'Boyle, E. H. (2014). Why does self-reported emotional intelligence predict job performance? A meta-analysis of common antecedents. *Journal of Applied Psychology, 100.* 298-342, doi 10.1037/a0037681

* Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology, 95,* 54-78. doi: 10.1037/a0017286.

Kandler, C. , & Riemann, R. (2010). Construct validation using multitrait-multimethod-twin data: The case of the general factor of personality. *European Journal of Personality, 24*, 258-277. doi: 10.1002/per.760

* Karim, J., & Weisz, R. (2010). Cross-cultural research on the reliability and validity of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). *Cross-Cultural Research, 44*, 374-404. doi:10.1177/1069397110377603

* Killian, K. D. (2012). Development and validation of the Emotional Self-Awareness Questionnaire: A measure of emotional intelligence. *Journal of Marital and Family Therapy, 38*, 502-514. doi:10.1111/j.1752-0606.2011.00233.x

* Kim, H. J., & Agrusa, J. (2011). Hospitality service employees' coping styles: The role of emotional intelligence, two basic personality traits, and socio-demographic factors. *International Journal of Hospitality Management, 30*, 588-598. doi:10.1016/j.ijhm.2010.11.003

* Kluemper, D. H. (2006). *An examination of ability-based emotional intelligence in the structured employment interview.* Unpublished doctoral dissertation, Oklahoma State University, Stillwater, United States.

* Kluemper, D. H. (2008). Trait emotional intelligence: The impact of core-self evaluations and social desirability. *Personality and Individual Differences, 44*, 1402-1412. doi:10.1016/j.paid.2007.12.008

* Kluemper, D. H., DeGroot, T., & Choi, S. (2013). Emotion management ability: Predicting task performance, citizenship, and deviance. *Journal of Management, 39*, 878-905. doi:10.1177/0149206311407326

* Law, K. S., Wong, C. S., & Song, L. J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology, 89*, 483-496. doi: 10.1037/0021-9010.89.3.483

* Libbrecht, N., Lievens, F., Carette, B., & Côté, S. (2014). Emotional intelligence predicts success in medical school. *Emotion, 14*, 64-73. doi: 10.1037/a0034392

* Libbrecht, N., & Lievens, F. (2012). Validity evidence for the situational judgment test paradigm in emotional intelligence measurement. *International Journal of Psychology, 47*, 438-447. doi:10.1080/00207594.2012.682063

* Livingstone, H. A., & Day, A. L. (2005). Comparing the construct and criterion-related validity of ability-based and mixed-model measures of emotional intelligence. *Educational and Psychological Measurement, 65*, 757-779. doi:10.1177/0013164405275663

Loehlin, J. C. (2012). How general across inventories is a general factor of personality? *Journal of Research in Personality, 46*, 258-263. doi:10.1016/j.jrp.2012.02.003

Loehlin, J. C., & Martin, N. G. (2011). The general factor of personality: Questions and elaborations. *Journal of Research in Personality, 45*, 44–49. doi:10.1016/j.jrp.2010.11.008

Lopes, P.N., Brackett, M.A., Nezlek, J.B., Schütz, A., Sellin, I., & Salovey, P. (2004). Emotional intelligence and social interaction. *Personality and Social Psychological Bulletin, 30*, 1018-1034. doi: 10.1177/0146167204264762

* Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences, 35*, 641-658. doi:10.1016/S0191-8869(02)00242-8

* Lyusin, D. B. (2006). Emotional intelligence as a mixed construct: Its relation to personality and gender. *Journal of Russian & East European Psychology, 44*, 54-68. doi:10.2753/RPO1061-0405440604.

Marsh, H. W., Hau, K-T., & Grayson, D. (2005). Goodness of fit evaluation in Structural Equation Modeling. In A. Maydeu-Olivares & J. McCardle (Eds.), *Psychometrics. A Festschrift to Roderick P. McDonald*. Hillsdale, NJ: Erlbaum.

Martins, A., Ramalho, N. & Morin, E. (2010). A comprehensive meta-analysis of the relationship between emotional intelligence and health. *Personality and Individual Differences, 49,* 554–564. doi:10.1016/j.paid.2010.05.029

Maul, A. (2012). The validity of the Mayer-Salovey-Caruso emotional intelligence test (MSCEIT) as a measure of emotional intelligence. *Emotion Review, 4,* 394–402. doi: 10.1177/1754073912445811

Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence, 27,* 267-298. doi:10.1016/S0160-2896(99)00016-1

* McIntyre, H. H. (2010). Gender differences in the nature and linkage of higher-order personality factors to trait and ability emotional intelligence. *Personality and Individual Differences, 48,* 617-622. doi:10.1016/j.paid.2009.12.019.

McCrae, R. R., & Costa, P. T. (1986). Clinical assessment can benefit from recent advances in personality psychology. *American Psychologist, 41,* 1001–1003. doi: 10.1037/0003-066X.41.9.1001

* Mikolajczak, M., Luminet, O., Leroy, C., & Roy, E. (2007). Psychometric properties of the Trait Emotional Intelligence Questionnaire: Factor structure, reliability, construct, and incremental validity in a French-speaking population. *Journal of Personality Assessment, 88,* 338-353. doi:10.1080/00223890701333431

Miyake, A., & Friedman, N. P. (2012). The nature and organization of individual differences in executive functions: Four general conclusions. *Current Directions in Psychological Science, 21,* 8-14. doi: 10.1177/0963721411429458

* Montasem, A., Brown, S. L., & Harris, R. (2013). Do core self-evaluations and trait emotional intelligence predict subjective well-being in dental students? *Journal of Applied Social Psychology, 43,* 1097-1103. doi:10.1111/jasp.12074

Musek, J. (2007). A general factor of personality: Evidence for the Big One in the five-factor model. *Journal of Research in Personality, 41,* 1213-1233. doi:10.1016/j.jrp.2007.02.003

* Newsome, S., Day, A. L., & Catano, V. M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29,* 1005-1016. doi:10.1016/S0191-8869(99)00250-0

O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2011). The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior, 32,* 788-828. doi: 10.1002/job.714

* O'Connor, R. M., & Little, I. S. (2003). Revisiting the predictive validity of emotional intelligence: Self-report versus ability-based measures. *Personality and Individual Differences, 35,* 1893-1902. doi:10.1016/S0191-8869(03)00038-2.

O'Sullivan, M. (2007). Trolling for trout, trawling for tuna: The methodological morass in measuring emotional intelligence. In Matthews, G. , Zeidner, M., & Robers, R. D. (Eds.) *The science of emotional intelligence* (p 258-287). New York: Oxford.

Oh, I., Wang, G., & Mount, M. K. (2011). Validity of observer ratings of the Five-Factor Model of personality traits: A meta-analysis. *Journal of Applied Psychology, 96,* 762-773. doi: 10.1037/a0021832

* Ono, M., Sachau, D. A., Deal, W. P., Englert, D. R., & Taylor, M. D. (2011). Cognitive ability, emotional intelligence, and the Big Five personality dimensions as predictors of criminal investigator performance. *Criminal Justice and Behavior, 38,* 471-491. doi:10.1177/0093854811399406

* Parker, J. D. A., Keefer, K. V., & Wood, L. M. (2011). Toward a brief multidimensional assessment of emotional intelligence: Psychometric properties of the Emotional Quotient Inventory-Short Form. *Psychological Assessment, 23,* 762-777. doi: 10.1037/a0023289.

Peabody, D. & Goldberg, L. R. (1989). Some determinants of factor structures from personality-trait descriptors. *Journal of Personality and Social Psychology, 57,* 552-567. doi: 10.1037/0022-3514.57.3.552

Pelt, D. H. M., Van der Linden, D., Dunkel, C. S., & Born, M. Ph. (2015). The general factor of personality and job performance: Meta-analytic evidence. *Paper presented at the conference of the International Society for the Study of Individual Differences (ISSID).* London, Ontario, Canada.

* Pérez-González, J. C., & Sanchez-Ruiz, M. (2014). Trait emotional intelligence anchored within the Big Five, Big Two and Big One frameworks. *Personality and Individual Differences, 65,* 53-58. doi:10.1016/j.paid.2014.01.021

Petrides, K. V. (2009). Psychometric properties of the Trait Emotional Intelligence Questionnaire. In C. Stough, D. H. Saklofske, and J. D. Parker, *Advances in the assessment of emotional intelligence*. New York: Springer. doi: 10.1007/978-0-387-88370-0_5

Petrides, K. V. (2010). Trait emotional intelligence theory. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 3,* 136-139. doi: 10.1111/j.1754-9434.2010.01213.x

Petrides, K. V. (2011). Ability and trait emotional intelligence. In Chamorro-Premuzic, T., Furnham, A., & von Stumm, S. (Eds.), *The Blackwell-Wiley Handbook of Individual Differences*. New York: Wiley.

Petrides, K. V. & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences, 29,* 313-320. doi:10.1016/S0191-

8869(99)00195-6

Petrides, K. V. & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality, 15,* 425-448. doi: 10.1002/per.416

Petrides, K. V., Niven, L., & Mouskounti, T. (2006). The trait emotional intelligence of ballet dancers and musicians. *Psicothema, 18,* 101–107.

Petrides, K. V. & Furnham, A. (2003). Trait emotional intelligence: Behavioural validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality, 17,* 39-57. doi: 10.1002/per.466

Petrides, K. V., Mason, M., & Sevdalis, N. (2011). Preliminary validation of the construct of trait social intelligence. *Personality and Individual Differences, 50,* 874-877. doi:10.1016/j.paid.2010.12.029

Petrides, K. V., Pérez-González, J. C., & Furnham, A. (2007). On the criterion and incremental validity of trait emotional intelligence. *Cognition and Emotion, 21,* 26-55. doi: 10.1080/02699930601038912

* Petrides, K. V., Pita, R., & Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. *British Journal of Psychology, 98*, 273-289. doi:10.1348/000712606X120618

* Petrides, K. V., Vernon, P. A., Schermer, J. A., Ligthart, L., Boomsma, D. I., & Veselka, L. (2010). Relationships between trait emotional intelligence and the Big Five in the Netherlands. *Personality and Individual Differences, 48*, 906-910. doi:10.1016/j.paid.2010.02.019.

Pettersson, E., & Turkheimer, E. (2012). The role of evaluation in the genetic structure of externalizing and internalizing spectra. *Behavior Genetics*, *42*, 960–960.

* Prentice, C., & King, B. E. M. (2013). Emotional intelligence and adaptability – service encounters between casino hosts and premium players. *International Journal of Hospitality Management, 32*, 287-294. doi:10.1016/j.ijhm.2012.06.004

* Qualter, P., Gardner, K. J., Pope, D. J., Hutchinson, J. M., & Whiteley, H. E. (2012). Ability emotional intelligence, trait emotional intelligence, and academic success in British secondary schools: A 5 year longitudinal study. *Learning and Individual Differences, 22*, 83-91. doi:10.1016/j.lindif.2011.11.007

Ree, M. J., Earles, J. A., Teachout, M. S. (1994). Predicting job performance: Not much more than g. *Journal of Applied Psychology*, *79*, 518-524. doi: 10.1037/0021-9010.79.4.518

Revelle, W., & Wilt, J. (2013). The general factor of personality: A general critique. *Journal of Research in Personality, 47*, 493–504. doi:10.1016/j.jrp.2013.04.012

* Rey, L., Extremera, N., & Trillo, L. (2013). Exploring the relationship between emotional intelligence and health-related quality of life in patients with cancer. *Journal of Psychosocial Oncology, 31*, 51-64. doi:10.1080/07347332.2012.703770

* Rieck, T., & Callahan, J. L. (2013). Emotional intelligence and psychotherapy outcomes in the training clinic. *Training and Education in Professional Psychology, 7*, 42-52. doi: 10.1037/a0031659

* Roberts, R., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet traditional standards for an intelligence? Some new data and conclusions. *Emotion, 1*, 196-231. doi: 10.1037/1528-3542.1.3.196

* Rode, J. C., Mooney, C. H., Arthaud-day, M. L., Near, J. P., Rubin, R. S., Baldwin, T. T., & Bommer, W. H. (2008). An examination of the structural, discriminant, nomological, and incremental predictive validity of the MSCEIT© V2.0. *Intelligence, 36*, 350-366. doi:10.1016/j.intell.2007.07.002

* Rossen, E., & Kranzler, J. H. (2009). Incremental validity of the Mayer–Salovey–Caruso Emotional Intelligence Test version 2.0 (MSCEIT) after controlling for personality and intelligence. *Journal of Research in Personality, 43,* 60-65. doi:10.1016/j.jrp.2008.12.002

Rushton, J. P., Bons, T. A., & Hur, Y. (2008). The genetics and evolution of a general factor of personality. *Journal of Research in Personality, 42,* 1173-1185. doi:10.1016/j.jrp.2008.03.002

Rushton, J. P., Bons, T. A., Ando, J., Hur, Y., Irwing, P., Vernon, P.A., Petrides, K. V., Barbaranelli, C. (2009). A general factor of personality from multi-trait multi-method data and cross-national twins. *Twin research and Human Genetics, 12,* 356-365. doi:10.1375/twin.12.4.356

Rushton, J. P., & Irwing, P. (2009). A general factor of personality in 16 sets of the Big Five, the Guilford–Zimmerman Temperament Survey, the California Psychological Inventory, and the Temperament and Character Inventory. *Personality and Individual Differences, 47,* 558–564. doi:10.1016/j.paid.2009.05.009

Rushton, J. P., & Irwing, P. (2011). The General Factor of Personality: Normal and abnormal. T. Chamorro-Premuzic, S. von Strumm, A. Furnham (Eds.). *The Wiley-Blackwell handbook of individual differences,* Blackwell Publishing.

* Russo, P. M., Mancini, G., Trombini, E., Baldaro, B., Mavroveli, S., & Petrides, K. V. (2012). Trait emotional intelligence and the Big Five: A study on Italian children and preadolescents. *Journal of Psychoeducational Assessment, 30,* 274-283. doi:10.1177/0734282911426412

* Saklofske, D. H., Austin, E. J., Galloway, J., & Davidson, K. (2007). Individual difference correlates of health-related behaviours: Preliminary evidence for links between emotional

intelligence and coping. *Personality and Individual Differences, 42*, 491-502. doi:10.1016/j.paid.2006.08.006

* Saklofske, D. H., Austin, E. J., Mastoras, S. M., Beaton, L., & Osborne, S. E. (2012). Relationships of personality, affect, emotional intelligence and coping with student stress and academic success: Different patterns of association for stress and success. *Learning and Individual Differences, 22*, 251-257. doi:10.1016/j.lindif.2011.02.010

* Saklofske, D. H., Austin, E. J., & Minski, P. S. (2003). Factor structure and validity of a trait emotional intelligence measure. *Personality and Individual Differences, 34*, 707-721. doi:10.1016/S0191-8869(02)00056-9

* Saklofske, D. H., Austin, E. J., Rohr, B. A., & Andrews, J. J. W. (2007). Personality, emotional intelligence and exercise. *Journal of Health Psychology, 12*, 937-948. doi:10.1177/1359105307082458

Salovey, P. & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.

* Sanchez-Ruiz, M., Mavroveli, S., & Poullis, J. (2013). Trait emotional intelligence and its links to university performance: An examination. *Personality and Individual Differences, 54*, 658-662. doi:10.1016/j.paid.2012.11.013

Saucier, G. (1994). Mini-Markers: A brief version of Goldberg's unipolar Big-Five markers. *Journal of Personality Assessment, 63*, 506-516.

Schmidt, F. (2002). The role of general cognitive ability and job performance: Why there cannot be a debate. *Human Performance, 15*, 187-202. doi:10.1080/08959285.2002.9668091

* Schulte, M. J., Ree, M. J., & Carretta, T. R. (2004). Emotional intelligence: Not much more than g and personality. *Personality and Individual Differences, 37*, 1059-1068. doi:10.1016/j.paid.2003.11.014

* Sharma, S., Gangopadhyay, M., Austin, E., & Mandal, M. K. (2013). Development and validation of a situational judgment test of emotional intelligence. *International Journal of Selection and Assessment, 21,* 57-73. doi:10.1111/ijsa.12017

* Shi, J., & Wang, L. (2007). Validation of emotional intelligence scale in Chinese university students. *Personality and Individual Differences, 43,* 377-387. doi:10.1016/j.paid.2006.12.012

Siegling, A. B., Furnham, A., & Petrides, K. V. (2015). Trait emotional intelligence and personality: Gender-invariant linkages across different measures of the Big Five. *Journal of Psychoeducational Assessment, 33,* 57-67. doi:10.1177/0734282914550385

* Siegling, A. B., Saklofske, D. H., Vesely, A. K., & Nordstokke, D. W. (2012). Relations of emotional intelligence with gender-linked personality: Implications for a refinement of EI constructs. *Personality and Individual Differences, 52,* 776-781. doi:10.1016/j.paid.2012.01.003

* Siegling, A. B., Vesely, A. K., & Saklofske, D. H. (2013). Advancing the trait EI content domain: Further evidence for the distinctiveness of interpersonal facets. *Personality and Individual Differences, 54,* 81-86. doi:10.1016/j.paid.2012.08.010

Siegling, A. B., Vesely, A. K., Petrides, K. V., & Saklofske, D. H. (2015). Incremental validity of the Trait Emotional Intelligence Questionnaire–Short Form (TEIQue–SF). *Journal of Personality Assessment, 97,*525-535. doi: 10.1027/1015-5759/a000267

* Singh, M., & Woods, S. A. (2008). Predicting general well-being from emotional intelligence and three broad personality traits. *Journal of Applied Social Psychology, 38,* 635-646. doi:10.1111/j.1559-1816.2007.00320.x.

Sitser, T.B., Van Linden, D., & Born, M.Ph. (2013). Predicting six different sales performance criteria with personality measures: The use of the General Factor of Personality, the Big Five and narrow traits. *Human Performance, 26,* 126-149.

doi:10.1080/08959285.2013.765877

* Sjoberg, L. (2001). Emotional intelligence: A psychometric analysis. *European Psychologist, 6*, 79-95. doi: 10.1027//1016-9040.6.2.79

* Song, L. J., Huang, G., Peng, K. Z., Law, K. S., Wong, C., & Chen, Z. (2010). The differential effects of general mental ability and emotional intelligence on academic performance and social interactions. *Intelligence, 38*, 137-143. doi:10.1016/j.intell.2009.09.003

Spearman, C. (1904). "General intelligence", objectively determined and measured. *American Journal of Psychology, 15*, 201-292.

Stankov, L. (2005). *g factor: Issues of design and interpretation*. Thousand Oaks, CA, Sage Publications Inc.

* Sy, T., Tram, S., & O'Hara, L. A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behavior, 68*, 461-473. doi:10.1016/j.jvb.2005.10.003

* Tok, S., & Morali, S. L. (2009). Trait emotional intelligence, the Big Five personality dimensions and academic success in physical education teacher candidates. *Social Behavior and Personality, 37*, 921-931. doi:10.2224/sbp.2009.37.7.921

* Vakola, M., Tsausis, I., & Nikolaou, I. (2004). The role of emotional intelligence and personality variables on attitudes toward organizational change. *Journal of Managerial Psychology, 19*, 88-110. doi: 10.1108/02683940410526082.

Van der Linden, D., Dunkel, C.S., Beaver, K. M., & Louwen, M. (2015) The unusual suspect: The General Factor of Personality (GFP), Life History Theory, and delinquent behavior. *Evolutionary Behavioral Sciences, 9*, 145-160. doi: 10.1037/ebs0000027

Van der Linden, D., Te Nijenhuis, J., & Bakker, A.B. (2010). The General Factor of

Personality: A meta-analysis and a criterion-related validity study. *Journal of Research in Personality, 44,* 315-327. doi:10.1016/j.jrp.2010.03.003

Van der Linden, D. (2011). The general factor of personality and peer-rated social status: A rejoinder to de Vries (2011). *Personality and Individual Differences, 51,* 836-839. doi:10.1016/j.paid.2011.07.010

Van der Linden, D., Te Nijenhuis, J., Cremers, M., & Van de Ven, C. (2011). General factors of personality in six datasets and a criterion-related validity study at the Netherlands Armed Forces. *International Journal of Selection and Assessment, 19,* 157-169. doi: 10.1111/j.1468-2389.2011.00543.x

Van der Linden, D., Scholte, R. H. J., Cillessen, A. H. N, Te Nijenhuis, J. & Segers, E. (2010). Classroom ratings of likeability and popularity are related to the Big Five and the general factor of personality. *Journal of Research in Personality, 44*, 669-672. doi:10.1016/j.jrp.2010.08.007

Van der Linden, D., Tsaousis, I., & Petrides, K.V. (2012). Overlap between General Factors of Personality in the Big Five, Giant Three, and trait emotional intelligence. *Personality and Individual Differences, 53,* 175-179. doi:10.1016/j.paid.2012.03.001

Van der Linden, D., Vreeke, L., & Muris, P. (2013). Don't be afraid of the general factor of personality (GFP): Its relationship to behavioral inhibition and anxiety in children. *Personality and Individual Differences,54,* 367-372. doi:10.1016/j.paid.2012.10.002

Van der Linden, D., Van Klaveren, D., & Dunkel, C. S. (2015). Emotional intelligence (EI) is an indicator of a slow life history strategy: A test of ability and trait EI. *Personality and Individual Differences,73,* 84-87. doi:10.1016/j.paid.2014.09.027

Van der Linden, D., Dunkel, C. S., & Petrides, K. V. (2016). The general factor of personality (GFP) as social effectiveness: Review of the literature. *Personality and Individual Differences, 101*, 98-105. doi:10.1016/j.paid.2016.05.020

* Van Rooy, D. L., Alonso, A., & Viswesvaran, C. (2005). Group differences in emotional intelligence scores: Theoretical and practical implications. *Personality and Individual Differences, 38*, 689-700. doi:10.1016/j.paid.2004.05.023.

Van Rooy, D. L., & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior, 65*, 71-95. doi:10.1016/S0001-8791(03)00076-9

Veselka, L., Just, C., Jang, K. L., Johnson, A. M., & Vernon, P. A. (2012). The general factor of personality: A critical test. *Personality and Individual Differences, 52*, 261–264. doi:10.1016/j.paid.2011.10.007

Veselka, L., Schermer, J. A., Petrides, K. V., Cherkas, L. F., Spector, T. D., & Vernon, P. A. (2009). A general factor of personality: Evidence from the HEXACO model and a measure of trait emotional intelligence. *Twin Research and Human Genetics, 12,* 420-424. doi:10.1016/j.paid.2011.10.007

Veselka, L., Schermer, J. A., Martin, R. A., Cherkas, L. F., Spector, T. D., & Vernon, P. A. (2010). A behavioral genetic study of relationships between humor styles and the six HEXACO personality factors. *Europe's Journal of Psychology, 3*, 9-33. doi: 10.5964/ejop.v6i3.206

* Warwick, J., & Nettelbeck, T. (2004). Emotional intelligence is…? *Personality and Individual Differences, 37*, 1091-1100. doi:10.1016/j.paid.2003.12.003

Webb, E. (1915). *Character and intelligence: An attempt at an exact study of character*. Cambridge: Cambridge University Press.

* Webb, C. A., Schwab, Z. J., Weber, M., DelDonno, S., Kipman, M., Weiner, M. R., & Killgore, W. D. S. (2013). Convergent and divergent validity of integrative versus mixed

model measures of emotional intelligence. *Intelligence, 41*, 149-156. doi:10.1016/j.intell.2013.01.004

Wilhelm, O. (2005). Measures of emotional intelligence: practice and standards. In R. Schulze, & R. D. Roberts (Eds.), *International handbook of emotional intelligence* (pp. 131-154). Seattle, WA: Hogrefe & Huber.

* Wong, C., Foo, M., Wang, C., & Wong, P. (2007). The feasibility of training and development of EI: An exploratory study in Singapore, Hong Kong and Taiwan. *Intelligence, 35*, 141-150. doi:10.1016/j.intell.2006.04.008

* Wong, C. S., Wong, P. M., & Law, K. S. (2007). Evidence of the practical utility of Wong's Emotional Intelligence Scale in Hong Kong and mainland China. *Asia Pacific Journal of Management, 24*, 43-60. doi:10.1007/s10490-006-9024-1

* Zeidner, M., & Olnick-Shemesh, D. (2010). Emotional intelligence and subjective well-being revisited. *Personality and Individual Differences, 48*, 431-435. doi:10.1016/j.paid.2009.11.011

Zeidner, M., Roberts, R. D., & Matthews, G. (2008). The science of emotional intelligence: Current consensus and controversies. *European Psychologist, 13*, 64-78. doi: 10.1027/1016-9040.13.1.64

Table 1. *Uncorrected Big Five Intercorrelations (r), Corrected Big Five Intercorrelations (ρ), and Credibility Intervals in the Meta-Analysis by Van der Linden et al. (2010, N = 144,117)*

	r	*SD(r)*	*ρ*	*SD(ρ)*	80 % Credibility Interval
O-C	.14	.15	.20	.21	(-.06, .46)
O-E	.31	.12	.43	.09	(.30, .57)
O-A	.14	.12	.21	.15	(.01, .41)
O-N	-.12	.12	-.17	.15	(-.36, .02)
C-E	.21	.15	.29	.16	(.06, .52)
C-A	.31	.14	.43	.12	(.26, .61)
C-N	-.32	.18	-.43	.16	(-.69, -.16)
E-A	.18	.15	.26	.19	(.01, .50)
E-N	-.26	.11	-.36	.08	(-.48, -.23)
A-N	-.26	.14	-.36	.09	(-.55, -.17)

Note: O = Openness, C = Conscientiousness, E = Extraversion, A = Agreeableness, N = Neuroticism.

Table 2.

Uncorrected Big Five-EI correlations (r), Corrected Big Five-EI correlations (ρ), and Credibility Intervals

	Trait EI measures															**Ability EI measures**				
	Total					TEIQue					WLEIS									
	r	*SD*	*ρ*	*SD*	80% credibility interval	*r*	*SD*	*ρ*	*SD*	80% credibility interval	*r*	*SD*	*ρ*	*SD*	80% credibility interval	*r*	*SD*	*ρ*	*SD*	80% credibility interval
O	.27	.11	.34	.14	(.16, .52)	.31	.08	.38	.10	(.25, .51)	.15	.11	.19	.14	(.01, .37)	.14	.12	.18	.15	(-.01, .37)
C	.34	.14	.41	.17	(.19, .63)	.40	.15	.47	.18	(.24, .70)	.30	.11	.36	.13	(.19, .53)	.09	.10	.11	.12	(-.04, .26)
E	.34	.19	.41	.23	(.12, .70)	.47	.08	.56	.10	(.43, .69)	.07	.17	.08	.21	(-.19, .35)	.05	.07	.06	.09	(-.06, .18)
A	.29	.14	.36	.17	(.14, .58)	.37	.08	.45	.10	(.32, .58)	.19	.11	.24	.14	(.06, .42)	.16	.09	.20	.11	(.06, .34)
N	-.40	.21	-.48	.25	(-.80, -16)	-.58	.11	-.68	.13	(-.85,-.51)	-.32	.16	-.38	.19	(-.62,-.14)	-.09	.08	-.11	.10	(-.24, .02)

Note: O = Openness to experience, C = Conscientiousness, E = Extraversion, A = Agreeableness, N = Neuroticism

Table 3.
Statistics and Fit Indices of (Corrected and Uncorrected) Models of the Overlap between the GFP and Trait EI

		Trait EI measures					
		χ^2	*df*	*p*	TLI	CFI	RMSEA
Corrected	Hierarchical model	1423.59	9	<.001	.93	.96	.08
	Two-factor model	5629.17	9	<.001	.74	.84	.15
	Big Five model	12480.33	11	<.001	.52	.65	.20
Uncorrected	Hierarchical model	664.93	9	<.001	.95	.97	.05
	Two-factor model	3166.30	9	<.001	.76	.85	.11
	Big Five model	10371.48	11	<.001	.35	.52	.19

Table 4.

Statistics and Fit Indices for the TEIQue and WLEIS models

		χ^2	*df*	*p*	TLI	CFI	RMSEA
TEIQue	Corrected	946.48	10	<.001	.90	.93	.11
	Uncorrected	433.31	10	<.001	.94	.96	.07
WLEIS	Corrected	606.72	9	<.001	.81	.89	.12
	Uncorrected	323.04	9	<.001	.82	.89	.09

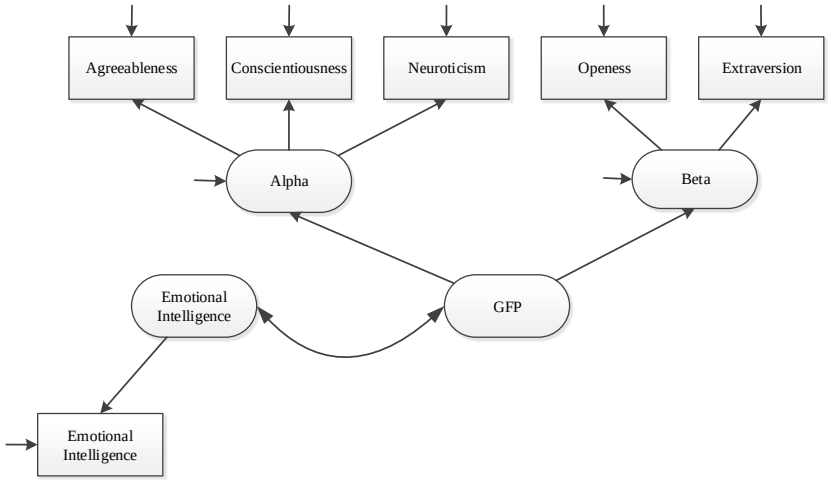
Note: TEIQue = Trait Emotional Intelligence Questionnaire, WLEIS = Wong and Law Emotional Intelligence Scale.

Table 5.

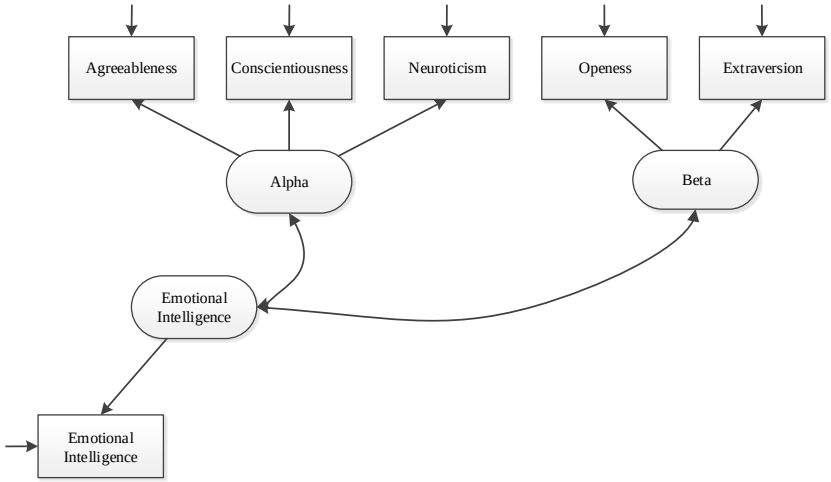
Statistics and Fit Indices of (Corrected and Uncorrected) Models on the Overlap between the GFP and Ability EI.

	Ability EI measures						
		χ^2	*df*	*p*	TLI	CFI	RMSEA
Corrected	Hierarchical model	496.27	9	<.001	.88	.93	.09
	Two-factor model	1599.82	9	<.001	.60	.76	.16
	Big Five model	8850.31	11	<.001	-.81	.00	.33
Uncorrected	Hierarchical model	232.62	9	<.001	.90	.94	.06
	Two-factor model	894.03	9	<.001	.59	.75	.12
	Big Five model	6370.25	11	<.001	-1.43	.00	.28

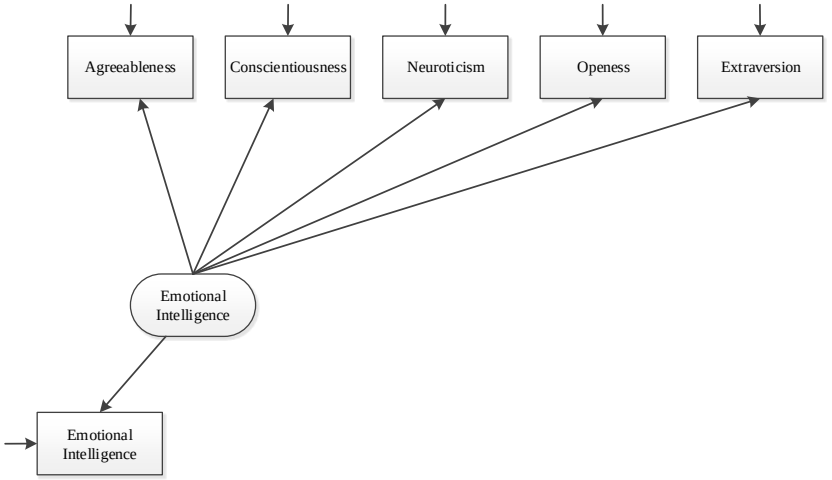
Figure 1 Models used in the Confirmatory Factor Analysis.



1a) Hierarchical Model

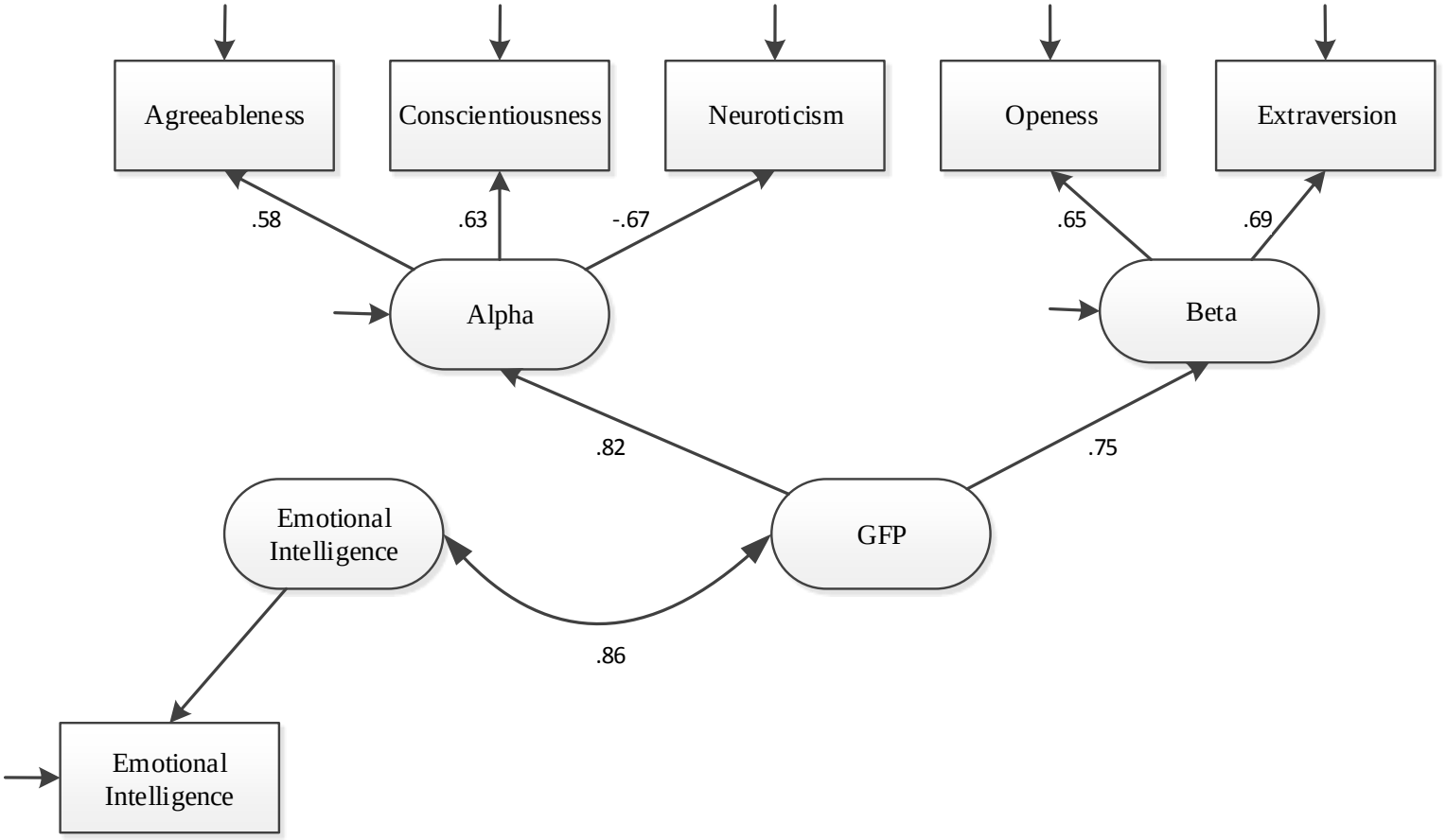


1b) Two-factor Model



1c) Big Five Model

Figure 2. Hierarchical Model Results Trait-EI Measures



Footnotes

1. An exception is the use of Principal Component analysis because in that case the shared as well as unique variance is taken into account leading to overestimation of the general factor.

2. The means of the observed Big Five intercorrelations reported in the EI articles were rather similar to the means of the observed correlations in Van der Linden et al. (2010). Based on K = 80 studies that reported the intercorrelations (58.6% of the studies), those values were; OC = .16, OE = .27, OA = .17, ON = -.07, CE = .20, CA = .26, CN = -.19, EA = .24, EN = -.16, AN = -.14. (Based on *N*s ranging from 21,902 to 23,169). Re-testing the models with the Big Five correlations of the more restricted set led to virtually identical results. For example, based on the uncorrected matrix, the correlation of r = .84 between the GFP and trait EI reported in the main text, was r = .88 using the matrix of the restricted set.

3. The study of Shi and Wang (2007) had a negligible effect on the overall correlations between trait EI and the Big Five. The only differences involved attenuating the E-EI correlation (from r = .34 to .37) and increasing the O-EI correlation (from r = .26 to .27).