The moderating role of honesty-humility in the association of agreeableness with interpersonal competency: A study of managers in two countries

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Abstract

The honesty-humility factor from the HEXACO model of personality has been found to offer incremental validity in predicting several work-related criteria over the remaining factors, yet its interplay with other personality factors is rarely examined. In this study, we examined how honesty-humility (the tendency to be sincere, fair, non-materialistic, and modest) can moderate the relation between agreeableness and interpersonal competency. Specifically, drawing on the theory of self-concept, we proposed that agreeableness will have a stronger association with interpersonal competency amongst individuals who are higher on honesty-humility, and relatively less so amongst individuals who are lower on honesty-humility.

Across three samples of people in managerial roles from two different cultures (Australia and Kenya), we found that honesty-humility indeed moderated the agreeableness–interpersonal competency relation, both when the criterion was measured by self-report (Sample 1, N = 167; Sample 2, N = 320; Sample 3, N = 296) and other-report (Sample 3, N = 195). In all three samples, the positive relation of agreeableness with interpersonal competency was strongest among those who were also higher on honesty-humility. Such an interaction effect was robust after controlling for the remaining HEXACO personality factors.

Keyword: personality, honesty-humility, agreeableness, interpersonal competency, HEXACO, trait interaction
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The discovery of the “Big Five” personality structure (e.g., Goldberg, 1990; McCrae & Costa, 1989), which emerged from lexical research, has facilitated the systematic study of major personality factors as predictors of important work criteria (e.g., Barrick & Mount, 1991; Chiaburu et al., 2011; Hurtz & Donovan, 2000). More recent lexical studies indicated, however, that a six-factor structure could be replicated more robustly than the classical five-factor structure across different languages and cultures (e.g., De Raad et al., 2014; Lee & Ashton, 2008; Saucier, 2009). This six-factor model, often studied as the HEXACO, has been suggested as an important improvement over the Big Five as it provide a more expansive framework for studying major personality factors (see Ashton & Lee, 2007 for a review), and is derived from more culturally and linguistically diverse research (see e.g., Thielmann et al., 2020a for recent evidence). Further, the inclusion of HEXACO’s ‘honesty-humility’ factor has allowed the discovery of relationships of major personality factors with outcomes such as exploitation-related behaviors (see Zettler et al., 2020; Thielmann et al., 2020b for recent and large-scale meta-analyses). In line with this, honesty-humility demonstrates not only zero-order correlations with important work outcomes such as task and contextual performance, but also incremental validity over the Big Five in predicting the deviant, antisocial, or counterproductive forms of work behaviors (see Lee et al., 2019; Pletzer et al., 2019 for recent meta-analyses), highlighting the theoretical and practical importance of this personality factor.

In addition to the basic linear associations of honesty-humility with work criteria, there are theoretical reasons to suggest that this trait could potentially act as an important moderator of the relations of other personality traits and important outcomes. Indeed, the expression of a personality trait is thought to depend on the state of other traits, and these trait-trait interactions are evidenced through multiplicative relationships with outcomes.
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(Hogan & Roberts, 1996; Moon & Livne, 2011; Ones et al., 2007; Tett & Christiansen, 2007).

In particular, given that honesty-humility concerns individuals’ tendencies to be sincere, authentic, and fair (Ashton, Lee, & Goldberg, 2004) – tendencies that play crucial roles during interpersonal interactions (e.g., Ashton & Lee, 2007; Hilbig et al., 2013) – we expect this trait to have the potential to regulate individuals’ expression of the other interpersonally-oriented factor, agreeableness. As we will elaborate in detail later, drawing on the theory of self-concept (Sedikides, 1993), we propose that honesty-humility can augment individuals’ expression of agreeableness, so that the harmonious, pleasant, and cooperative work relationships formed by agreeable individuals can come across as more genuine and meaningful, as facilitated by the honesty-humility trait, hence leading to better interpersonal competency. By interpersonal competency, we mean the competency that enables individuals to work effectively with others and that is critically important in most jobs given the increasingly interdependent nature of work (e.g. Carpini et al., 2017; Griffin et al., 2007), with behaviors for such a competency typically include supporting others, showing care and empathy, working effectively with individuals and teams, among others (e.g. Bartram, 2005).

To test our proposed hypotheses, we examined the personalities and interpersonal competency of three samples of managers from two different cultural contexts (Kenya, Sample 1) and Australia (Samples 2 and 3). We collected both self-reported (all 3 samples) and other-reported (Sample 3) criteria with the aim to cross-validate the results across samples and rating sources.

Our study contributes to existing knowledge in several ways. First and foremost, our focus on the moderating role of honesty-humility adds new understanding to this relatively under-researched personality factor and highlights its role not only as an important and unique predictor of work outcomes (e.g., Lee et al., 2019; Pletzer et al., 2019), but that it could facilitate or suppress the expressions of other traits, especially when the interpersonal context
is concerned. By unpacking the moderating role of honesty-humility in the expression of agreeableness, we highlight that understanding individuals’ honesty-humility offers great value in delineating how individuals relate to others at work. Our focus on interpersonal competency also broadens the understanding of honesty-humility in relating to organizationally relevant individual work outcomes. To date, the focus of the study of this trait in the work context has been on its relationship with deviant and counterproductive work behaviors, yet given the importance of this trait in shaping individuals’ behaviors during social interactions (e.g., Ashton & Lee, 2007; Hilbig et al., 2013), it is crucial to purposefully investigate its impact to interpersonally-related criteria.

Second, our study contributes to the wider personality-outcome research field, which is still largely focused on discovering direct, linear relationship between traits and outcomes, rather than focusing on how outcomes are dependent on individuals’ standing on several traits collectively. Although some efforts have been made in understanding trait combinations in predicting work outcomes, mostly concerning the Big Five (e.g., Witt, 2002; Witt et al., 2002; Judge & Erez, 2007) and only one study we are aware of concerning HEXACO (Oh et al., 2011), the trait-trait interaction research base is still very small. Our study adds to this limited research and highlights the importance of moving beyond simply understanding each personality trait as standalone factors, a point repeatedly highlighted by researchers (e.g. Moon & Livne, 2011; Tett & Christiansen, 2007).

Finally, our unique samples warrant attention. By using managerial samples, our study contributes to the knowledge about personality profiles of interpersonally effective managers. There have been few studies investigating personality profiles of leaders, as compared to those of employees or of the general population. Our findings that leaders benefit from having a high standing on the honesty-humility factor, in addition to agreeableness, provides a more nuanced view about the relations of leaders’ personality configurations and effectiveness as
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leaders. Our additional contribution rests on a cross-cultural investigation using comparable samples (i.e., managers pursuing part-time MBA studies) collected from two different cultures. This enables us to investigate whether our proposed relationships generalize across cultures. Our inclusion of a Kenyan sample is noteworthy due to the rarity of both organizational and personality research reported from this cultural context.

**Honesty-humility as a unique personality factor**

Since its discovery, the Big Five structure of personality that resulted from a lexical approach by collating and analyzing all personality-related adjectives in the English dictionary became the dominant framework for the study of personality (e.g. Goldberg, 1990; McCrae & Costa, 1989). However, subsequent lexical studies using a more comprehensive set of personality adjectives, and including a broader scope of cultures and languages than the original lexical research, suggested that a six-factor solution would emerge reliably, demonstrate good cross-cultural equivalence, and account for variance in the personality descriptors that was not otherwise accounted for by five-factor models (e.g., Lee & Ashton, 2008; Thielmann et al., 2020a). Studies that analyzed and integrated a wide range of psycholexically based personality taxonomies from both English and non-English languages provides further evidence that the inclusion of the sixth factor provides a more comprehensive coverage of the personality domain and the six-factor model can be considered as a pan-cultural personality structure (e.g., De Raad et al., 2014; Saucier, 2009).

The most distinctive feature of the six-factor model is the honesty-humility factor, which does not emerge separately in five-factor models. It is defined by terms such as *sincere, fair, and unassuming* versus *sly, deceitful, and pretentious* (Ashton et al., 2004). Individuals with relatively higher levels of honesty-humility (termed “high-H individuals” henceforth) are relatively less inclined to manipulate and exploit others for personal gains, or to consider themselves as superior or entitled to special treatment, while individuals with relatively lower
levels of honesty-humility ("low-H individuals") are relatively more inclined to flatter or
manipulate others, bend rules for personal gains, and feel entitled to special status and
privilege.

Importantly, studies have revealed that honesty-humility offers incremental prediction,
beyond the Big Five factors, on a range of work-relevant outcomes (see Ashton et al., 2014,
for a review, and both Pletzer et al., 2019 and Lee et al., 2019, for recent meta-analyses). In
particular, honesty-humility appears to be negatively associated with counterproductive and
deviant aspect of work performance, such as workplace delinquency and (low) integrity
(Pletzer et al., 2019; Lee et al., 2005), organizational antisocial behavior (Lee et al., 2005),
and unethical business decision-making (Ashton & Lee, 2008). Honesty-humility also
predicts deviant behaviors more generally, such as cheating, sexual harassment, and general
delinquency (e.g. Ashton et al., 2014; Lee et al., 2003; Dunlop et al., 2012) as compared to
Big Five traits.

While there has been solid conceptual and empirical evidence supporting honesty-
humility’s independence of other traits and its unique contribution in predicting individuals’
behaviors and performance, there is the need to advance the understanding of how it could
interplay with other traits in bringing additional predictive power on different criteria. Indeed,
there has been much evidence that personality traits are not simply independent and
complementary, but can instead exhibit multiplicative relationships when predicting work
outcomes (Hogan & Roberts, 1996; Moon & Livne, 2011; Ones et al., 2007; Tett &
Christiansen, 2007). Trait-trait interactions have been observed among Big Five factors in the
prediction of various behavioral and performance criteria, such as between conscientiousness
and extraversion in the prediction of performance both in an interview context and job context
(Witt, 2002), between conscientiousness and agreeableness (Witt et al., 2002), and between
conscientiousness and emotional stability (Judge & Erez, 2007). However, these existing
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studies, in addition to being limited in number, have primarily focused on traits in the Big Five structure. As far as we are aware, there is only one trait-trait interaction study that involved honesty-humility (Oh et al., 2011), and that study focused on how the relationship between honesty-humility with self-reported workplace deviance is moderated by extraversion. In general, how honesty-humility as a ‘new’ personality factor can regulate the expression of other traits is under-researched, and existing studies also focused on a rather narrow range of work criteria, with the Big Five-based studies only concerned individuals’ overall job performance, and the only HEXACO based study only concerned self-reported deviance.

In this study, we extend earlier studies by exploring the moderating role of honesty-humility on the relationship between the agreeableness factor and individuals’ interpersonal competency. We focus on these two traits given they are traits most relevant for individuals’ behaviors in interpersonal context (Ashton & Lee, 2007; Hilbig et al., 2013). We expect that honesty-humility would impact how individuals express their trait agreeableness when relating to others. In our investigation, we focus on interpersonal competency as the key criterion, following the principle of building conceptual alignment between personality and criterion (e.g., Campbell, 1990; Hogan & Holland, 2003; Tett et al., 2003). Below we first present our focal criterion variable; we then discuss how agreeableness is associated with this outcome, and how this association will be moderated by honesty-humility.

The importance of interpersonal competency at work

To perform effectively at work, individuals need to possess a range of competencies, or “sets of behaviors that are instrumental in the delivery of desired results or outcome” (Bartram et al., 2002). Particularly crucial is interpersonal competency, as it contributes to effective social interactions and functioning in organizations (Bedwell et al., 2014; Klein et al., 2006). The increasingly interdependent nature of work (Griffin et al., 2007) means that
employees in almost all jobs are now required to work with others and to achieve common
goals through coordinated efforts. For instance, the O*NET occupational list indicated
“interpersonal relationships” as one of the three core work context factors, and this factor was
rated as important in over 80% of the occupations (Carpini et al., 2017). The interdependent
nature of work relationships is further enhanced as a result of technological change, which
creates more interdependent systems, increases the need for collaboration and renders jobs
and roles to become more socially embedded (e.g., Wang et al., 2020).

It is thus no surprise that interpersonal competency has been repeatedly highlighted
in various competency frameworks that were developed for comprehensively capturing the
criterion domain. For instance, this competency has been mentioned as “consideration /
awareness of others” (Arthur et al., 2003), “supporting and cooperating” (Bartram, 2005);
“working with people” (Varela & Landis, 2010); “interpersonal competence” (Viswesvaran et
al., 1996), among others. Of particular note, Bartram (2005) provided a comprehensive
review and integration of competencies, articulated in the “Universal Competency
Framework”, and highlighted “supporting and cooperating” as one of the eight most
fundamental competencies. Discussions relating to interpersonal effectiveness in the criterion
space can also be identified in literatures concerning employees’ work performance. For
instance, Hogan and Holland (2003) used the socioanalytic theory to argue that one of the two
major factors of individuals’ performance is “getting along with others” (versus “getting
ahead”) and is represented by behaviors such as showing interpersonal skills, exhibiting
capacity to compromise, demonstrating sensibility, among others. Moreover, the interpersonal
focus has been discussed in the literature on contextual performance and Organizational
Citizenship Behavior (OCB), represented by constructs such as interpersonal facilitation (Van
Scotter & Motowildo, 1996), personal support (Coleman & Borman, 2000), interpersonal
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citizenship behavior (ICB, Settoon & Mossholder, 2002), and the altruism aspect of OCB (OCB-I, Williams & Anderson, 1991).

It is important to highlight that, while sharing some similar elements, interpersonal competency comes with a different focus from that of OCB. Rather than focusing on the discretionary, voluntary, and extra-role behaviors as primarily concerned by OCB (Organ, 1988), interpersonal competency represents one’s core competencies in supporting and coordinating with team members to collectively achieve work goals, and is hence in closer alignment with performance constructs such as “teamwork” in Hough (1992) and Barrick et al. (2001), “team member proficiency” in Griffin et al. (2007) and Carpini et al. (2017), and “team role behavior” in Welbourne et al. (1998). Hence, we have adopted interpersonal competency as an inclusive term that reflects the type of interpersonal behaviors that act as an essential component of people’s day to day job.

While interpersonal competency is important for all employees, its critical role can be further amplified for managers and leaders, whose key job roles involve coordinating, motivating, and enlisting others to achieve work results. The nature of managerial roles requires them to spend a significant amount of their working hours with other people (see Oshagbemi, 1995, for a review). Through these frequent interpersonal interactions, managers must effectively build mutually beneficial relationships, gain trust from others, and provide care and support as needed by others, and such behaviors are often considered as critical parts of leadership (e.g. Bass & Bass, 2008; Boyatzis, 1982; Kouzes & Posner, 2007). In several meta-level competency models purposefully developed for understanding managerial competencies, such a focus on interpersonal competency has been frequently emphasized. For instance, it has been represented as “people orientation” in Tett et al.’s (2000) model, and in the integrative framework developed by Dierdorff et al. (2009), the authors articulated “interpersonal” as one of the three most broad and fundamental domains in understanding
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managerial work (next to “conceptual” and “technical/administrative”). Interestingly, however, scholars often highlight that managers lack effective interpersonal competency, arguing this aspect to be the focus of leader development programs (Beenen & Pichler, 2016), including MBA education (e.g. Bedwell et al., 2014; Rubin & Dierdorff, 2009). In sum, interpersonal competency is a critical criterion especially for managers and leaders.

The relationship between agreeableness and interpersonal competency

We now discuss how agreeableness is the most conceptually linked personality trait for this criterion. Agreeable individuals, in the HEXACO model, are those who tend to be cooperative, forgiving, even-tempered, and lenient, and can be expected to get along well with others and therefore to demonstrate high interpersonal competency.

Evidence about how agreeableness (most commonly studied using the agreeableness in the Big Five model, which has a slightly different definition) is the most relevant personality trait linking to interpersonal-related constructs can be found in various meta-analytical studies that comprehensively investigated the criterion domain. For instance, meta-analyses by Hough (1992) and Barrick et al. (2001) found that agreeableness (out of the Big Five) showed strongest and most positive relationship with “teamwork”, the criterion representing individuals’ ability to collaborate with others. Hogan and Holland (2003) found that agreeableness (measured by “likeability” in the Hogan Personality Inventory) demonstrated strongest relationship with the corresponding criterion reflecting quality of interpersonal relationships. Bartram (2005) found that agreeableness was the strongest personality antecedent of the competency “supporting and coordinating” in the Universal Competency Framework. Additionally, although interpersonal competency is different from OCB as we discussed earlier, it is useful to draw on evidence in that space given some aspects of OCB concerns interpersonal relationships. Using meta-analyses, Organ and Ryan (1995) revealed that agreeableness was associated with self-rated altruism, while Hurtz and Donovan
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(2000) found that agreeableness had among the highest relationship with the interpersonal facilitation aspect of OCB. Finally, in the broader research on how personality relates to outcomes in general (rather than work-specific), agreeableness has been conceptually and empirically linked to behaviors such as cooperating with others and tolerating unfairness (Zettler et al., 2020). In sum, evidence across multiple research domains collectively highlights the role of individuals’ agreeableness in building effective interpersonal relationships and achieving high interpersonal competency at work.

Although there is comparatively less research attention on the role of agreeableness among managers and leaders, evidence is present such that agreeable leaders tend to be more supportive of their subordinates, demonstrate interpersonal warmth, show concern for others’ welfare, and share power (De Vries, 2008; 2012; using HEXACO agreeableness). Among the Big Five, agreeableness also presented among the highest associations with the individualized consideration aspect of leadership, based on meta-analytic findings (Bono & Judge, 2004; Deinert et al., 2015). Additional evidence can be drawn from studies focusing on leadership styles that specifically concern leaders’ care, consideration and compassion for followers, such as servant leadership, and research shows that more agreeable leaders tend to display higher servant leadership (e.g. Hunter et al., 2013). Furthermore, there is evidence that compared to non-managers, managers demonstrated higher level of agreeableness, and the difference is larger than that on other four traits in the Big Five model (Lounsbury et al., 2016), indicating that agreeableness can be even more important for managers. In sum, we expect that in our managerial samples, agreeableness will show a positive relationship with interpersonal competency.

Hypothesis 1: Agreeableness will be positively associated with interpersonal competency.
Honesty-humility as a moderator of the agreeableness – interpersonal competency relationship

Although we expect a positive association of agreeableness with interpersonal competency, we also expect that the strength of this association will be dependent on individuals’ honesty-humility. Drawing on the theory of self-concept, we argue that the characteristics of honesty-humility have implications on individuals’ self-evaluation motives, and thereby affect how individuals regulate the manifestation of their trait agreeableness. According to self-concept theory, individuals are governed by self-enhancement motives (i.e., the motive to maintain a favorable image) and self-assessment motives (i.e., the motive to seek accurate information, regardless of its favorability), and these two motives can often be in competition (e.g., Dunning, 1995; Morling & Epstein, 1997; Swann et al., 1989). Although both motives are important, it is reasonable to expect individuals vary in terms of their valence regarding these two motives (e.g., Taylor & Brown, 1988). Self-enhancement motives involve a biased self-view such that individuals tend to be selective in processing self-relevant information and focus on information that enhances the positivity of their self-images (Sedikides, 1993). In contrast, self-assessment motives involve a more realistic and honest self-assessment in feedback seeking for the purpose of arriving at accurate information, even if that feedback is negative (Sedikides, 1993; Swann et al., 1989).

We propose that individuals’ honesty-humility will be indicative of their valences associated with each motive when interacting with others. Specifically, high-H individuals will be relatively more motivated than low-H individuals to focus more strongly on self-assessment rather than self-enhancement. The high-H individuals’ need for consistency and accuracy in self-evaluation means they are relatively more willing than low-H individuals to reveal their true thoughts, feelings, and attributes (e.g., Kraus & Chen, 2012; Maltby et al., 2012). Such motives can be particularly crucial for interpersonal contexts, as, when
presenting themselves in front of others, high-H individuals are more likely to desire an
authentic expression of their ‘true’ (dis)agreeableness.

By contrast, low-H individuals may harbor weaker accurate self-assessment motives,
relative to their motives to self-enhance, especially with the view to influence others. Thus,
low-H individuals are more likely to disguise and suppress their ‘true selves’ to achieve their
goals (Lee & Ashton, 2012). For instance, empirical research confirms that low-H individuals
are more likely to engage in strategic impression management (Bourdage et al., 2015), or
strategic cooperation (Hilbig & Zettler, 2009; Hilbig et al., 2012). Thus, in effect, the honesty-
humility trait may act as an internal source of self-regulation, functioning in similar ways as
the external regulator of situational constraints, which have been argued to either enhance the
manifestation of personality traits in weak situations or to suppress the manifestation of
personality traits in strong situations (Tett & Burnett, 2003). Altogether, we expect that,
depending on individuals’ level on honesty-humility, agreeableness may either be freely
enacted or deliberately regulated, and thus its relationship with interpersonal competency
could either be made more salient or more trivial.

Specifically, among high-H individuals, the tendency toward authentic self-expression
will mean that (dis)agreeableness will be more readily expressed when interacting and
working with others. That is, highly agreeable individuals will freely and authentically
express their inclination to be patient, flexible, lenient, and forgiving, to others; however,
highly disagreeable individuals will not hide their disagreeableness simply for the sake of
pleasing others. Therefore, the relationship between agreeableness and interpersonal
competency will be more salient among those who are relatively high on honesty-humility. In
contrast, those who are low-H may be more likely to strategically conceal their true selves,
and the result will be a dampened association of their agreeableness with interpersonal
competency. Even when low-H individuals are agreeable, these individuals will appear as,
what Lee and Ashton described as, “inoffensive but insincere” (2012, p. 54). In other words, although these individuals can be tolerating and forgiving, because of their agreeableness, their tendency to manipulate others and their willingness to deceive people for personal gains, as a result of their low honesty-humility, can potentially lead to “fake friendliness” (Lee & Ashton, 2012, p. 55) that does not necessarily translate into effective interpersonal competency. Therefore, among these individuals, the positive relation between agreeableness and interpersonal competency will be tempered by low honesty-humility.

Although little research has been conducted directly on how honesty-humility acts as a moderator for other personality traits, indirect evidence can be drawn from studies which examined some closely related constructs, such as authenticity and humility in leadership context, which is relevant to our study. For instance, it has been found that leaders’ authenticity can moderate the way followers perceive their ethical behaviors, with better results obtained among more authentic leaders (e.g. Zhu et al., 2004). Similarly, it has been proposed that humility can moderate the way leaders’ behaviors translate into results, as higher leader humility would enable followers to positively attribute leaders’ behaviors as honest and trustworthy, thus having an “amplifying effect” and leading to more positive outcomes (e.g. Nielsen et al., 2010; Sousa & van Dierendonck, 2015). Therefore, we expect that higher levels of honesty-humility would amplify the impact of agreeableness trait, so that agreeableness can be manifested in a more authentic way. We propose:

**Hypothesis 2:** There will be an interaction between honesty-humility and agreeableness such that the positive association of agreeableness with interpersonal competency will become stronger with higher levels of honesty-humility.

**Method**

We collected data from three samples of managers in different countries to test our hypotheses. Sample 1 comprised 167 managers who were pursuing part-time MBA study in a
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Kenyan university (59% male, mean age = 34.74, SD = 7.36). As part of the requirement in an introductory course in the MBA program, these managers were asked to complete an online survey and were informed that feedback on their personality profiles would be provided in a later session of the course. Data were collected from two cohorts of MBAs attending the same course over 2 years. Sample 2 comprised 320 managers who were pursuing part-time MBA study in an Australian university (62% male, mean age = 35.18, SD = 6.91). Prior to their MBA orientation day, these managers were invited to partake in the online survey and were informed that feedback on their personality profiles would be provided during the orientation event. Hence, although participation was voluntary, most of the cohort participated. Data forming this sample were aggregated from newly enrolled MBA students into the program over a period of 1.5 years. Sample 3 comprised a different cohort of 296 managers who were pursuing part-time MBA study in the same Australian university (63% male, mean age = 34.08, SD = 7.00), and the recruitment procedure was the same as Sample 2, except that we also asked these managers to invite peers from work – if applicable and if they were willing – to provide rating on their interpersonal competency. Peer ratings were available for 195 participants in this sample. Data from Sample 3 were aggregated from newly enrolled MBA students over a period of 1.5 years. In all three samples, tenure at the participants’ workplaces were not available, but based on the average working experience for the MBA classes in these two business schools, students had an average 9.6 years’ working experience in the Kenyan university and 11 years in the Australian university.

In all samples, participants reported their demographic background, completed the HEXACO personality inventory, and either reported their own interpersonal competency (Samples 1, 2 and 3) or invited their peers to report their interpersonal competency (Sample 3).

Measures

Personality
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Participants reported their personality via the English version of the HEXACO-60 personality inventory (Ashton & Lee, 2009), with 10 items assessing each of the six traits.\footnote{For a full list of items, administration instructions, and scoring key please see HEXACO website at https://hexaco.org/hexaco-inventory.} Reliability of all scales was assessed via McDonald’s omega coefficients (\(\omega\); Zinbarg et al., 2005), which were calculated using the Jamovi software (www.jamovi.org), and the coefficients are presented for Samples 1-3 in Tables 1-4 respectively. They ranged from .64 to .80 across the six factors in Sample 1, .67 to .78 in Sample 2, and .70 to .84 (among participants with peer-ratings), and .67 to .83 (among all participants) in Sample 3. It should be noted that the reliability of honesty-humility tended to be the lowest of the six traits in all samples. Further, as we explain later, we employed single-indicator latent variable modeling in Samples 2 and 3 to improve our estimates of the relations of personality with interpersonal competency. For Sample 1, because of its smaller size, we calculated traditional HEXACO ‘scale’ scores by calculating the mean of the responses to the items for the corresponding scale.\footnote{We ran a model using single-indicator latent variables in this sample as well. The pattern of results was similar; however, the standard errors of the regression parameters in that model were noticeably larger, which we attribute to the smaller sample size coupled with uncertainty in estimating latent variables.} We also conducted multigroup measurement invariance test to establish measurement equivalence of the personality measures across the two cultures. Following recommendations in a recent large-scale cross-cultural test on HEXACO (Thielmann et al., 2020a), we conducted this test by using the Exploratory Structural Equation Modeling approach on facet composites of our two focal personality factors, honesty-humility and agreeableness, and we combined the two Australian samples into one and compared it with the Kenyan sample. The results\footnote{For detailed findings on this test please see supplementary material at our OSF site for this study.} largely confirmed Thielmann et al.’s (2020a) finding, which supported configural and metric invariance but not scalar invariance, suggesting that the factor structure and the underlying meaning of the personality factors are equivalent across the two cultures, but not mean-level scores on the traits. As our research was concerned with relationships between the
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personality variables and the interpersonal competency outcomes, having invariant intercepts on personality measures across cultures would not impact our findings.

**Interpersonal Competency**

We employed a range of measures for the criterion variable, with the aim to examine if results can be replicated. In Sample 1, we used a single ‘overall’ interpersonal competency item taken from the overall job performance scale developed by Pearce and Porter (1986).

This item asks respondents to rate on the item “ability to get along with others”, based on how the participant compares to others in similar positions, in percentile terms, on a scale of 1 – 10. For example, a rating of 9 indicates that the participant rates him or herself as better than 90% of others in similar positions (Goffin & Olson, 2011).

For Samples 2 and 3 (self-ratings), we constructed a three-item scale of interpersonal competency using items selected from Podsakoff et al. (1990) and Rafferty and Griffin (2004) scales, which represented interpersonal behaviors of leadership. The items are “behaves in a manner which is thoughtful about others’ personal needs”; “develops a team attitude and spirit amongst others” and “commends others when they do a better than average job”. These items reflect the “supporting and cooperating” competency in Bartram’s (2005) Universal Competency Framework, capturing behaviors such as “understanding/caring for others”, “building team spirit”, and “recognizing and rewarding contributions”, and hence deemed appropriate to assess interpersonal competency. Using items from leadership measures to represent leaders’ interpersonal competency is in line with the approaches taken by other researchers (e.g. De Vries, 2008; Hansen et al., 2014). Respondents were asked to rate to what extent they agreed that the focal person (in this case, self) demonstrates these behaviors in their day-to-day job, on a scale of 1 (strongly disagree) - 5 (strongly agree). We observed very strong negative skew in the responses with no participants selecting strongly disagree to any item, and relatively few selecting disagree (approximately 1-2%). Accordingly, in the
analyses, we treated this variable as a factor with three indicators and used 2-parameter item-
response modelling in Mplus to model that factor. We are not aware of an agreed upon
estimate of reliability for these types of models, so we inspected the standardized factor
loadings and observed a mean in Sample 2 of .715 and Sample 3 of .623.

In Sample 3, we also adapted the items from the same measure to make them
appropriate for peer-ratings. To collect peer-ratings, participants were asked to identify at
least three peers who were working with them and surveys were then sent to each of the peers.
A total of 668 peers (62% male, mean age = 40.10, SD = 10.32) provided ratings to 195
participants, with each participant rated by an average of 3.43 peers. Although we ultimately
employed structural equation modeling to predict these ratings for the final analyses, we first
calculated mean responses to the three items from each peer to estimate the intra-class
correlation of the ratings across peers. The intra-class correlation was .47, which represented a
moderate level of agreement among raters and comparable to those reported in earlier studies
where peer ratings are used (e.g. Berry et al., 2013; Conway & Huffcutt, 1997). McDonald’s
$\omega$ for interpersonal competency indicated by the aggregated peer-reported items was .78.

Controls

We controlled for age and gender in all analysis as both variables are known to be
associated with both personality and interpersonal competency (Ashton & Lee, 2016; Lee &
Ashton, 2020). As described earlier, we also included all six personality factors in the analysis,
to establish the incremental validity of the hypothesized interaction effect beyond the
remaining factors. In Sample 3 where peer ratings were used, we further controlled for the
other raters’ familiarity with the target participant, as assessed by an item asking the peer to
rate “to what extent are you familiar with this person” on a scale of 1 – 5, with 1 indicating
“not at all familiar” and 5 indicating “extremely familiar”. We considered it important to
control for familiarity when criteria are rated by others, as ‘closer’ others may have more
Honesty-humility, Agreeableness, and Interpersonal Competency

Information available in providing the rating and thus could judge interpersonal competency more accurately (e.g., Biesanz et al., 2007).

Results

Preliminary Analyses

Tables 1-4 present descriptive statistics of the study variables in each sample. Agreeableness exhibited a significant association with the interpersonal competency ($r = .28$ to .43, all $p < .01$) across the three samples. This result is consistent with Hypothesis 1.

Analytical Strategy

To test the two hypotheses, across all samples, we conducted two-step hierarchical SEM analyses in Mplus 8.4, with step 1 containing control variables and the HEXACO main effects, and step 2 adding an honesty-humility × agreeableness interaction term. Where an interaction effect emerged, to investigate its form, we conducted simple slopes tests, setting the values of honesty-humility to one standard deviation below the mean (“low”), the mean (“mean”), and one standard deviation above the mean (“high”), using the “MODEL CONSTRAINT” function in Mplus. Finally, we created simple slopes plots to examine the form of the interactions (Figure 1).

In Sample 1, because of the relatively small sample size, the HEXACO factors were modeled using manifest ‘scale’ scores (i.e., mean responses to the items in the scale), and a manifest product interaction term in step 2. All continuous variables were mean-centered. Thus, the analyses we performed to test the hypothesis is identical to a two-step multiple regression analysis.

In Samples 2 and 3, with the benefits of larger sample sizes and a multiple-item criterion measure (and multiple peer ratings in sample 3), we modeled personality and the criterion using latent variables. The criterion variable was modeled using a three-item factor model approach (see Measures for details). For the HEXACO factors, we employed a single-
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indicator latent variables technique, as recommended by Antonakis et al. (2010), for reducing parameter estimation bias that can result from endogeneity due to measurement error. The procedure for creating a single indicator latent variable is illustrated with honesty-humility from Sample 2 as an example, and was reproduced for all HEXACO factors in Samples 2 and 3. To model honesty-humility as a single-indicator latent variable, we first calculate a ‘manifest scale score’ that is equal to the mean of the responses to the 10 items that comprise the honesty-humility scale. That mean score is then used as the lone indicator of the honesty-humility latent variable, with a loading of 1. The residual variance for that lone indicator is then fixed to a value equal to the observed variance of the scale score multiplied by \((1 - \omega)\). In other words, the residual variance is equal to the total variance multiplied by the proportion of that variance that is assumed to be measurement error. In the case of honestly-humility in Sample 2, the observed variance was .2916 and \(\omega\) was .6725, thus the error variance was fixed in Mplus to .0955.

From there, the analyses we undertook are very similar to regression, with the main differences being that the HEXACO predictors and criteria were latent variables, and the control variables, age and gender, were manifest. That is, Step 1 involved regressing the criterion factor on the two control variables plus the six single-indicator HEXACO factors. In step 2 of the analyses, a latent interaction term was specified in Mplus using the “XWITH” command (Kenny & Judd, 1984). A SEM diagram depicting our modeling approach, along with all syntax and output are available on the project’s Open Science page:

https://osf.io/vk4qh/?view_only=d55783895ac844daba5d8b236da9e3cf.

Hypothesis Tests

Tables 5 and 6 show the results of the regression analyses across all three samples. In Sample 1, as shown in Table 5, we observed positive main effects of agreeableness \((b = .44, p = .011)\), and extraversion \((b = .80, p < .001)\) on interpersonal competency. In line with
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Hypothesis 2, we also observed a significant positive interaction between honesty-humility and agreeableness ($b = .77, p = .003$). Simple slopes analyses, along with its corresponding plot (see Figure 1) revealed that agreeableness was a relatively strong predictor of interpersonal competency when honesty-humility was higher (simple slope = .88, $p < .001$), and near-zero when honesty-humility was lower (simple slope = .01, $p = .968$). The addition of the interaction term improved $R^2$ by .038.

For Sample 2, interpersonal competency was modeled as latent variables with three indicators, and the HEXACO predictors were modeled as single-indicator latent variables. The analyses, shown in Table 5, revealed that emotionality ($b = 0.66, p = .003$), and extraversion ($b = 1.05, p = .001$), and agreeableness ($b = 0.94, p = .009$) were positive predictors of interpersonal competency. This result lends support to Hypothesis 1, but like Sample 1, also revealed other personality predictors of interpersonal competency, especially extraversion. The interaction between honesty-humility and agreeableness was again a positive and significant predictor ($b = 1.23, p = .024$). The simple slopes analyses (also see plot in Figure 1) showed that agreeableness was again a stronger predictor of interpersonal performance when honesty-humility was higher (simple slope = 1.48, $p = .003$), and a non-significant predictor when honesty-humility was lower (simple slope = .41, $p = .264$). The inclusion of the interaction term improved the overall model’s $R^2$ by .041. Thus, overall, while there were inconsistencies with respect to the ‘main effects’ of the personality traits, the hypothesized interaction effect and its form was consistent between Samples 1 and 2.

Overall model fit at step 1 was reasonable ($\chi^2(16), N = 320) = 26.22, p = .051$; RMSEA = .045 (90% CI = [.000, .074]); CFI = .972; SRMR = .025). At step 2, we estimated the effect on overall model fit with the addition of the latent interaction term through the difference in log-likelihood test described by Maslowsky et al. (2015). This test involved subtracting the H0 log likelihood of the model with the interaction term from that of the
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model without the interaction term, multiplying this difference by -2 and then evaluating its statistical significance through a \( \chi^2 \) test with degrees of freedom equal to the differences in the number of free parameters between the models (1 in this case). In this case, the test value was \( \chi^2(1, N = 236) = 5.59 \) \( (p = .018) \), indicating that exclusion of the interaction term results in significant loss of fit.

In Sample 3, we first used the whole of Sample 3 \( (N = 296) \) to analyze the self-reported criterion, and the results are shown in Table 5. These analyses showed that extraversion \( (b = 1.04, p = .001) \) and agreeableness \( (b = 1.09, p = .005) \) were significant predictors of interpersonal competency. The hypothesized interaction term was not significant \( (b = 1.01, p = .116) \), yet it was in the same direction as that was hypothesized. We do not contend that this result supports our hypotheses, and we proceeded cautiously with simple slopes analyses to ascertain whether the pattern of results is consistent. These analyses revealed again that the effect of agreeableness declined as honestly-humility was lower; the effect of agreeableness was non-significant at low levels of honestly-humility, but significant at high levels (simple slope at higher honestly-humility = 1.54, \( p = .005 \) and lower honestly-humility = .65, \( p = .108 \)). Overall variance in the criterion explained by the predictors (\( R^2 \)) improved by .031 with the inclusion of the interaction term. Overall model fit at Step 1 was sound \( (\chi^2(16, N = 296) = 27.32, p = .038; \text{RMSEA} = .049 \ (90\% \text{ CI} = [.011, .079]); \text{CFI} = .957) \). The test for the effect on fit borne from the addition of the interaction term was not statistically significant \( (\chi^2(1, N = 296) = 3.79, p = .052) \).

Finally, we restricted the analyses to the 195 participants that had peer ratings on the criterion, and the results are shown in Table 6. With respect to peer-rated interpersonal competency, both familiarity with the target \( (b = .24, p < .001) \) and agreeableness \( (b = .34, p = .001) \) were positive and significant predictors. This result supports the main effect of agreeableness as specified in Hypothesis 1. The interaction between honesty-humility and
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agreeableness was again a positive and significant predictor ($b = .49$, $p = .009$). The simple slopes analyses were consistent with those from other samples (see Figure 1), with agreeableness being a stronger predictor of interpersonal competency when honesty-humility was higher (simple slope = .57, $p < .001$) but not so at lower honesty-humility (simple slope = .14, $p < .217$). Overall $R^2$ improved by .068 with the inclusion of the interaction term.

Overall model fit at Step 1 was sound ($\chi^2(18), N = 195) = 34.89, p = .009; RMSEA = .069 (90\% CI = [.033, .104]); CFI = .940; SRMR = .029$). The test for the effect on fit borne from the addition of the interaction term was also statistically significant ($\chi^2(1, N = 195) = 7.46, p = .006$).

Altogether, the results from four analyses revealed a consistent pattern with respect to the prediction of interpersonal competency by agreeableness, supporting Hypothesis 1; furthermore, the interaction of honesty-humility and agreeableness in predicting interpersonal competency (Hypothesis 2) was found in three out of the four analyses. The hypothesized interaction term fell shy of statistical significance in the prediction of self-reported interpersonal competency in Sample 3, though a cautious interpretation showed that the pattern of the relation of agreeableness, conditional on different levels of honesty-humility was similar with what we had hypothesized.4

Discussion

In this study, we examined how the honesty-humility factor of personality interacts with agreeableness to contribute to the prediction of interpersonal competency. Across three managerial samples from two different cultural settings (Kenya and Australia), and using self-reports (Sample 1, 2 and 3) or other-reports (Sample 3) of the criterion, we found support for our hypotheses in all four analyses for the main effect of agreeableness in predicting

4 On the suggestion of the review team, we also explored whether other traits would moderate the relation of honesty-humility and the criteria, but did not find any evidence of this. Results of these exploratory tests are available on our OSF page.
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interpersonal competency, and in three samples out of four, for the moderating role of honesty-humility in this relationship.

**Personality antecedent of interpersonal competency at work**

In line with previous findings, our results support the hypothesis that HEXACO agreeableness was positively associated with interpersonal competency. This result is consistent with earlier findings about the critical role of agreeableness in relation to competencies and work behaviors concerning effective interpersonal relationships (Barrick et al., 2001; Bartram, 2005; Hogan & Holland, 2003; Hough, 1992; Organ & Ryan, 1995), and is also in line with studies on leadership that suggest agreeable managers tend to be more supportive and considerate of others (e.g., De Vries, 2008; 2012).

Our finding that agreeableness but not honesty-humility related to the outcome lends credence to the notion that there is utility in considering agreeableness and honesty-humility as distinct constructs with implications for social and interpersonal interactions. Indeed, Ashton and Lee (2007) and others (Hilbig et al., 2013) have clarified that while both traits describe how individuals relate to others, they do so in rather different ways. Specifically, whereas high levels of honesty-humility represent people’s tendency to cooperate when exploitation is an option, agreeableness represents people’s tendency to cooperate with others even when they may have been exploited previously. In our study, where generalized interpersonal effectiveness at work is concerned, we found that the effect mainly came from agreeableness, as it captures individuals’ general tendency to develop harmonious relationships and forgive past indiscretions.

It also appeared interesting that in all analyses where the criterion was self-reported there was also a relatively strong effect of extraversion. Extraverted individuals tend to exercise more positive judgments when evaluating themselves, possibly due to the positive affect these individuals tend to demonstrate in general (e.g. Lucas & Baird, 2004). Also, as
extraverted individuals are socially active, they may tend to regard themselves as relatively highly interpersonally competent. It is worth noting, however, that when interpersonal competency is rated by peers (Sample 3), the main effect from extraversion disappeared, and we only observed the hypothesized main effect of agreeableness.

**The interplay of honesty-humility and agreeableness in interpersonal context**

More importantly, we extend existing research by revealing important interplays between agreeableness and honesty-humility. Supporting our hypothesis, the relation of agreeableness with interpersonal competency was stronger among high-H individuals, but relatively trivial among low-H individuals. This finding is consistent with the notion that honesty-humility represents an internal self-regulating source that affects the extent to which agreeableness is manifested and translated into interpersonal behaviors. High-H individuals, with the stronger motive for accurate self-assessment, may tend to activate and express their ‘true’ agreeableness when interacting with others. In cases where high-H individuals are also relatively low on agreeableness, they would not be inclined to strategically manage their impressions on others by pretending to be collaborative, easygoing, accommodating, and forgiving. On the other hand, low-H individuals, possibly due to a stronger motive to enhance themselves and manipulate others’ impressions, may inhibit the expression of their ‘true’ agreeableness, and cooperate or compete with others more strategically. Indeed, researchers have suggested that honesty-humility trait plays a central role in one’s impression management behaviors, such that low honesty-humility can be associated with high self-promotion or ingratiative behaviors (e.g. Bourdage et al., 2015). Our results may thus indicate that when individuals engage in such tactics, their agreeableness failed to directly translate into effective interpersonal interactions.

It is worth noting is that among all the profiles with different combinations of agreeableness and honesty-humility, it was individuals who were higher on both traits that
Honesty-humility, Agreeableness, and Interpersonal Competency were perceived as being most effective interpersonally, either based on self or others’ perceptions. Being higher on agreeableness, these individuals are more easygoing, caring, empathetic, patient and forgiving to others’ misdemeanors (Ashton et al., 1998; McCullough, 2001). For those individuals who are also higher on honesty-humility, their agreeableness can be amplified as such agreeableness is perceived as authentic, genuine, and with integrity. In other words, the combination of higher scores on these two traits enables these individuals to present themselves as highly pleasant individuals who also have a high moral standard. In contrast, those with higher agreeableness, yet lower honesty-humility, tend to attract less favorable evaluations, thus not fully reaping the ‘social benefits’ from their agreeableness. It is possible that these individuals may be more selectively agreeable, or their agreeableness is less sincere. For instance, their agreeableness, such as friendliness and forgiveness towards others, may be presented with an underlying motive to gain benefits for themselves when opportunities permit, and this would thus be perceived less favorably interpersonally. Further, the multiplicative relationship between the two traits suggests that both individuals themselves, and their peers, can identify individuals whose high agreeableness is accompanied by high-H, from individuals whose high agreeableness is accompanied by low-H, and such identification has important implications on interpersonal judgment.

Overall, our findings provide evidence that honesty-humility as a unique personality trait holds great potential in advancing our understanding of personality – criterion relationships, such that rather than merely acting as important predictor for work outcomes (Lee et al., 2019; Pletzer et al., 2019), it can also facilitate the expression of trait agreeableness, enabling individuals to function most effectively in the interpersonal context. Our finding also add to the limited research on trait-trait interactions, and highlight the importance of considering dynamic, multiplicative relationship among personality traits in
Implications for leadership and cross-cultural studies in relation to personality

By studying our proposed relationships using managerial samples, our study makes contributions to the leadership literature. In general, research on leaders’ personality is limited, compared to the vast majority of studies focusing on employees’ personality. Of particular relevance to our study are a small handful of studies by De Vries and colleagues, using the HEXACO model. For instance, De Vries (2008, 2012) found that agreeableness was strongly associated with considerate and supportive style of leadership; and in a more recent study, Breevaart and De Vries (2017) found that among the six traits, agreeableness and honesty-humility of leaders’ personality demonstrated most significant and negative relationship with subordinates’ perception on leaders’ abusive leadership – the type of leadership that is perhaps least interpersonally effective. Our study adds to these limited studies on leader personality, highlighting that beyond simple, linear effect, these two interpersonally-related traits can have a multiplicative relationship, and that it is the combination of higher agreeableness and higher honesty-humility that creates most interpersonally capable managers.

We also comment on the cross-cultural implications of our study, as we collected samples from two very different cultures. The HEXACO model emerged as an improvement of the Big Five, with one of its advantages being derived from lexical research undertaken with more linguistically and culturally diverse data (e.g., Lee & Ashton, 2008; Thielmann et al., 2020a). Our study lends indirect support to HEXACO model as a universal framework, as our identified relationships were replicated across Australia and Kenya. The inclusion of a Kenyan sample is noteworthy, due to that such data are rarely reported in international journals. In fact, even among the numerous published international studies conducted on HEXACO, to our knowledge, Kenyan data has not been represented until a very recent large-
sample, multi-national study (Lee & Ashton, 2020). Our study adds to the dearth of studies in this regard by reporting research evidence from this unique cultural context.

**Limitation and future directions**

Several limitations of our study should be noted. First, we note that the reliability of the honesty-humility measure was low especially in the Kenyan sample. While we have retained the full scale to enable comparison across samples, we did conduct an item-level analysis with the Kenyan sample, and results demonstrated that one item (“I’d be tempted to use counterfeit money, if I were sure I could get away with it”) had an unusual distribution of responses such that 73.7% of the sample selected strongly disagree to it. There is so little known about the assessment of the HEXACO personality factors in Kenyan populations, and it is possible that this item, or the scale more generally, do not function equivalently in this context. Interestingly, the reliability of the honesty-humility scale also tended to be lower than the remaining traits in all samples. Perhaps, members the study population – managers completing an MBA program – possess certain unusual trait configurations. More research is needed on leaders’ HEXACO personality profiles across cultures to shed light on this issue.

Second, in some of the samples (Sample 1) we used a single item measure to capture interpersonal competency, which could raise concerns about reliability and validity. However, we have attempted to address this limitation by including multi-item scales in Study 2 and 3 and the general replication of results provided some assurance for using single-item measures. Furthermore, single-item operationalization of constructs has been suggested to have benefits of higher face validity, higher cost-effectiveness in survey administration, and can yield comparable reliability and validity as compared to multi-item measures (Gardner et al., 1998), and prior organizational research has used such measures in measuring work outcomes (e.g. Chan & Schmitt, 2002; Wright & Cropanzano, 2000).
Future research could extend this study by examining the mechanisms through which honesty-humility interplays with agreeableness to understand what specific behaviors are demonstrated as associated with different profiles. It may also be of value to examine which facets of these traits would reveal most important and interesting multiplicative relationships in predicting outcomes (e.g. Wang et al., 2013), which would require capturing the facets in a more reliable way by using the longer version of the HEXACO scale.

References


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Zinbarg, R. E., Revelle, W., Yovel, I., & Li, W. (2005). Cronbach’s α, Revelle’s β, and McDonald’s ω H: Their relations with each other and two alternative conceptualizations of reliability. *Psychometrika, 70*(1), 123-133.
Table 1.
Mean, standard deviation, and intercorrelations among study variables in Sample 1 (Kenya) with self-rated interpersonal competency ($N = 167$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>34.74</td>
<td>7.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Participant is Female</td>
<td>41%F</td>
<td></td>
<td>-.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Honesty-Humility</td>
<td>3.72</td>
<td>0.57</td>
<td>.08</td>
<td>.18*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.64)</td>
</tr>
<tr>
<td>4. Emotionality</td>
<td>3.06</td>
<td>.60</td>
<td>-.08</td>
<td>.35**</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.74)</td>
</tr>
<tr>
<td>5. Extraversion</td>
<td>3.49</td>
<td>.54</td>
<td>-.01</td>
<td>-.14</td>
<td>.13</td>
<td>-.17*</td>
<td></td>
<td></td>
<td></td>
<td>(.77)</td>
</tr>
<tr>
<td>6. Agreeableness</td>
<td>3.19</td>
<td>.52</td>
<td>.02</td>
<td>-.16*</td>
<td>.19*</td>
<td>-.23**</td>
<td>.17*</td>
<td></td>
<td></td>
<td>(.70)</td>
</tr>
<tr>
<td>7. Conscientiousness</td>
<td>3.86</td>
<td>.56</td>
<td>.04</td>
<td>.17*</td>
<td>.34**</td>
<td>.02</td>
<td>.20**</td>
<td>-.10</td>
<td></td>
<td>(.80)</td>
</tr>
<tr>
<td>8. Openness</td>
<td>3.53</td>
<td>.65</td>
<td>-.16*</td>
<td>-.02</td>
<td>.19*</td>
<td>-.12</td>
<td>.27**</td>
<td>.03</td>
<td>.30**</td>
<td>(.80)</td>
</tr>
<tr>
<td>9. Interpersonal competency (1 item)</td>
<td>7.65</td>
<td>1.25</td>
<td>-.07</td>
<td>-.07</td>
<td>.19*</td>
<td>-.09</td>
<td>.40**</td>
<td>.28**</td>
<td>.06</td>
<td>.11</td>
</tr>
</tbody>
</table>

Notes.

$N = 167$. Response scale 1 – 5 for personality measures; 1 – 10 for Interpersonal competency. Coefficients in parentheses along the diagonal reflects McDonald’s omega coefficients for the corresponding measure. $F = $ Female.

** $p < .01$, * $p < .05$
Table 2.

Mean, standard deviation and intercorrelations among study variables in Sample 2 with self-rated interpersonal competency ($N = 320$)

<table>
<thead>
<tr>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>35.18</td>
<td>6.91</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Participant is Female</td>
<td>38% F</td>
<td>0.00</td>
<td></td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Honesty-Humility</td>
<td>0.00</td>
<td>0.44</td>
<td>0.16*</td>
<td>0.15*</td>
<td>(.67)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Emotionality</td>
<td>0.00</td>
<td>0.54</td>
<td>0.01</td>
<td>0.43**</td>
<td>-0.11</td>
<td>(.78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Extraversion</td>
<td>0.00</td>
<td>0.42</td>
<td>0.08</td>
<td>0.12</td>
<td>0.13</td>
<td>-0.21**</td>
<td>(.77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Agreeableness</td>
<td>0.00</td>
<td>0.40</td>
<td>0.05</td>
<td>-0.12</td>
<td>0.35**</td>
<td>-0.22**</td>
<td>0.29**</td>
<td>(.71)</td>
<td></td>
</tr>
<tr>
<td>7. Conscientiousness</td>
<td>0.00</td>
<td>0.41</td>
<td>0.02</td>
<td>0.09</td>
<td>0.38**</td>
<td>-0.17*</td>
<td>0.23**</td>
<td>0.03</td>
<td>(.76)</td>
</tr>
<tr>
<td>8. Openness</td>
<td>0.00</td>
<td>0.50</td>
<td>0.02</td>
<td>0.17</td>
<td>0.14</td>
<td>0.00</td>
<td>0.23**</td>
<td>0.02</td>
<td>0.11</td>
</tr>
<tr>
<td>9. Interpersonal competency</td>
<td>0.00</td>
<td>1.00</td>
<td>0.12</td>
<td>0.14</td>
<td>0.30**</td>
<td>0.11</td>
<td>0.42**</td>
<td>0.38**</td>
<td>0.20*</td>
</tr>
</tbody>
</table>

Note.

Personality traits were operationalized as single indicator latent variables and Interpersonal competency was operationalized as a three-item latent variable, hence means of these variables are zero. Values in the diagonal, where applicable, are McDonald's omega reliability coefficients. F = Female.

** $p < .01$, * $p < .05$
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Table 3.
Mean, standard deviation and intercorrelations among study variables in Sample 3 with self-rated interpersonal competency (N = 296)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>34.08</td>
<td>7.00</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>37%</td>
<td></td>
<td>--</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honesty-Humility</td>
<td>0.00</td>
<td>0.43</td>
<td>.15*</td>
<td>.12</td>
<td>(.67)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotionality</td>
<td>0.00</td>
<td>0.45</td>
<td>.03</td>
<td>.34**</td>
<td>-.21*</td>
<td>(.70)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.00</td>
<td>0.44</td>
<td>-.10</td>
<td>.12</td>
<td>.21**</td>
<td>-.20**</td>
<td>(.78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>0.00</td>
<td>0.44</td>
<td>.06</td>
<td>-.07</td>
<td>.42**</td>
<td>-.19*</td>
<td>.28**</td>
<td>(.73)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>0.00</td>
<td>0.44</td>
<td>-.09</td>
<td>.18**</td>
<td>.43**</td>
<td>-.06</td>
<td>.17*</td>
<td>.02</td>
<td>(.77)</td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td>0.00</td>
<td>0.60</td>
<td>.18**</td>
<td>.07</td>
<td>.22**</td>
<td>-.06</td>
<td>.12</td>
<td>.15*</td>
<td>.01</td>
<td>(.83)</td>
</tr>
<tr>
<td>Interpersonal competency</td>
<td>0.00</td>
<td>0.41</td>
<td>.11</td>
<td>.00</td>
<td>.22*</td>
<td>-.07</td>
<td>.44**</td>
<td>.43**</td>
<td>.17</td>
<td>.18</td>
</tr>
</tbody>
</table>

Note.
Personality traits were operationalized as single indicator latent variables and Interpersonal competency was operationalized as a three-item latent variable, hence means of these variables are zero. Values in the diagonal are McDonald’s omega reliability coefficients. F = Female.

**p < .01, * p < .05
Table 4.
Mean, standard deviation and intercorrelations among study variables in Sample 3 with peer-rated interpersonal competency (N = 195)

|   | Mean | SD  | 1     | 2   | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    |
|---|------|-----|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | Age  | 34.21 | 7.02 | --  |       |       |       |       |       |       |       |       |       |
| 2 | Participant is Female | 36%F | -- | -0.08 | -- |       |       |       |       |       |       |       |       |
| 3 | Familiarity | 3.71 | 0.55 | -0.21 | 0.01 | -- |       |       |       |       |       |       |       |
| 4 | Honesty-Humility | 0.00 | 0.44 | -0.12 | 0.08 | 0.11 | (0.70) |       |       |       |       |       |       |
| 5 | Emotionality | 0.00 | 0.45 | 0.08 | 0.41** | -0.08 | -0.15 | (0.71) |       |       |       |       |       |
| 6 | Extraversion | 0.00 | 0.39 | -0.04 | 0.19* | 0.03 | 0.11 | -0.21* | (0.74) |       |       |       |       |
| 7 | Agreeableness | 0.00 | 0.43 | -0.05 | -0.12 | -0.10 | 0.29** | -0.22* | 0.16 | (0.73) |       |       |       |
| 8 | Conscientiousness | 0.00 | 0.44 | -0.09 | 0.18* | 0.17* | 0.45** | -0.10 | 0.20* | -0.04 | (0.77) |       |       |
| 9 | Openness | 0.00 | 0.62 | 0.10 | 0.11 | 0.07 | 0.11 | 0.01 | 0.02 | 0.02 | 0.01 | (0.84) |       |
| 10 | Interpersonal competency | 0.00 | 0.40 | -0.06 | 0.14 | 0.28** | 0.17 | 0.04 | 0.10 | 0.32** | 0.02 | -0.01 | (0.78) |

Note.
Personality traits were operationalized as single indicator latent variables and Interpersonal competency was operationalized as a three-item latent variable, hence means of these variables are zero. Values in the diagonal, where applicable, are McDonald's omega reliability coefficients. F = Female.

** p < .01, * p < .05
### Table 5.

Regressions of self-rated interpersonal competency on demographics and personality (Step 1) and the interaction between honesty-humility and agreeableness (Step 2) in Samples 1 and 2.

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Sample 1 – Kenya (N = 167)</th>
<th>Sample 2 – Australia (N = 320)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step 2</td>
</tr>
<tr>
<td>Constant</td>
<td>7.67 (0.12)</td>
<td>7.641 (-0.77)</td>
</tr>
<tr>
<td>Mean Centered Age</td>
<td>-0.02 (0.01)</td>
<td>-0.015 (0.01)</td>
</tr>
<tr>
<td>Participant is Female</td>
<td>-0.05 (0.18)</td>
<td>-0.073 (0.18)</td>
</tr>
<tr>
<td>Honesty-Humility</td>
<td>0.30 (0.17)</td>
<td>0.33+ (0.17)</td>
</tr>
<tr>
<td>Emotionality</td>
<td>0.02 (0.16)</td>
<td>0.11 (0.16)</td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.84** (0.17)</td>
<td>0.80** (0.17)</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>0.46* (0.18)</td>
<td>0.44* (0.17)</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.07 (0.18)</td>
<td>-0.14 (0.17)</td>
</tr>
<tr>
<td>Openness</td>
<td>-0.05 (0.14)</td>
<td>-0.08 (0.14)</td>
</tr>
<tr>
<td>Honesty-Humility × Agreeableness</td>
<td>--</td>
<td>0.77** (0.26)</td>
</tr>
</tbody>
</table>

\[
R^2 
\]

\[
R^2 \text{ change} 
\]

### Notes.

Aside from participant is female, all predictor variables were mean-centered. Unless otherwise denoted, figures are unstandardized regression coefficients with standard errors in parentheses. For Sample 2, the six personality variables were modeled as latent variables with the manifest ‘scale scores’ as single indicators and error variances set to \((1-\omega) \times \text{scale score variance}\). Interpersonal competency is standardized in Sample 2.

\[+ p = .10, *p < .05, ** p < .01. \text{ } p\text{-values are available to three decimals in the main text.}\]
Honesty-humility, Agreeableness and Interpersonal Competency

Table 6.

Regressions of self-rated and peer-rated interpersonal competency on demographics, familiarity, and personality (Step 1) and the interaction between honesty-humility and agreeableness (Step 2) in Sample 3.

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Self-Rated Interpersonal Competency</th>
<th>Peer-Rated Interpersonal Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N = 296, three-item latent)</td>
<td>(N = 195, three-item latent)</td>
</tr>
<tr>
<td></td>
<td>Step 1</td>
<td>Step 2</td>
</tr>
<tr>
<td>Mean Centered Age</td>
<td>0.02 (.01)</td>
<td>0.02 (.02)</td>
</tr>
<tr>
<td>Participant is Female</td>
<td>-0.13 (.22)</td>
<td>-0.14 (.22)</td>
</tr>
<tr>
<td>Familiarity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honesty-Humility</td>
<td>-0.27 (.38)</td>
<td>-0.33 (.38)</td>
</tr>
<tr>
<td>Emotionality</td>
<td>0.20 (.30)</td>
<td>0.23 (.30)</td>
</tr>
<tr>
<td>Extraversion</td>
<td>1.00** (.32)</td>
<td>1.04** (.31)</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>1.02** (.38)</td>
<td>1.09** (.39)</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>0.47 (.32)</td>
<td>0.40 (.31)</td>
</tr>
<tr>
<td>Openness</td>
<td>0.18 (.20)</td>
<td>0.18 (.20)</td>
</tr>
<tr>
<td>Honesty-Humility × Agreeableness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* \( R^2 \)

<table>
<thead>
<tr>
<th>( R^2 ) change</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.343</td>
</tr>
<tr>
<td>0.374</td>
</tr>
<tr>
<td>0.248</td>
</tr>
<tr>
<td>0.316</td>
</tr>
</tbody>
</table>

Notes.

The six personality variables were modeled as latent variables with the manifest ‘scale scores’ as single indicators and error variances set to \((1-\omega)\) × scale score variance. Unless otherwise denoted, figures are unstandardized regression coefficients with standard errors in parentheses. * \( p < .05 \), ** \( p < .01 \). *-values are available to three decimals in the main text. Self-Rated interpersonal competency is standardized.
Honesty-humility, Agreeableness and Interpersonal Competency

Figure 1.
The interaction plots of Honesty-Humility and Agreeableness, with simple slopes tests, in predicting self-rated interpersonal competency in samples 1, 2, and 3 and peer-rated interpersonal competency in sample 3.