# Moral Character in the Workplace

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# Supplemental Materials

The individual differences we examined in Studies 1 and 2 were: the six HEXACO personality factors (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience); guilt proneness, shame proneness, and guilt and shame action tendencies (guilt-repair orientation, shame-withdrawal orientation); empathic concern and perspective taking; moral identity-internalization and symbolization; consideration of future consequences and future self-continuity; moral idealism and moral relativism; cognitive moral development; narcissism; Machiavellianism; an self-control. In Study 3, we included many but not all of these same variables, along with moral disengagement; social value orientation; and the five moral foundations (Harm/Care, Fairness/Reciprocity, Ingroup/Loyalty, Authority/Respect, and Purity/Sanctity).

Tables S1-S4 report the descriptive statistics and bivariate correlations among the variables. Tables S5-S6 present results of latent profile analyses (LPA), principal component analyses (PCA), and exploratory factor analyses (EFA). These analyses were designed to estimate the relative importance of each variable for determining moral character.

# Variable Descriptions

## HEXACO Personality Dimensions

We measured the six broad personality dimensions with the HEXACO personality inventory (Ashton & Lee, 2007, 2009; Ashton, Lee, de Vries, 2014). According to the HEXACO framework, all aspects of personality can be categorized into six broad dimensions. We used the HEXACO personality inventory rather than a Big Five inventory because of the strong evidence supporting the six-factor structure of personality and its cross-cultural generalizability (Ashton & Lee, 2007, 2008a, 2008b, 2009; Ashton et al., 2014; Lee & Ashton, 2012; Lee et al., 2008; Marcus et al., 2007).

The 60 item HEXACO Personality Inventory assesses: (H) Honesty-Humility, (E) Emotionality, (X) Extraversion, (A) Agreeableness, (C) Conscientiousness, and (O) Openness to Experience. Each of the six factors is considered a broad personality dimension with several underlying facets. Honesty-Humility is indicative of a person’s fairness, sincerity, modesty, and greed-avoidance. Emotionality is indicative of a person’s fearfulness, anxiety, dependence, and sentimentality. Extraversion is indicative of a person’s social self-esteem, social boldness, sociability, and liveliness. Agreeableness (versus Anger) is indicative of a person’s forgivingness, gentleness, flexibility, and patience. Conscientiousness is indicative of a person’s organization, diligence, perfectionism, and prudence. Openness to Experience is indicative of a person’s aesthetic appreciation, inquisitiveness, creativity, and unconventionality.

The two broad personality dimensions with the most prominent links to integrity are Honesty-Humility (e.g., Ashton & Lee, 2008a, 2008b; Cohen, Panter, Turan, Morse, & Kim, 2013; Lee & Ashton, 2005; 2012; Lee et al., 2008; Marcus et al., 2007) and Conscientiousness (e.g., Berry et al., 2012; Berry et al., 2007; Marcus et al., 2007; Roberts et al., 2009; Schmidt & Hunter, 1998). In the workplace, relationships have been found between these constructs and low counterproductive work behavior (CWB) and high organizational citizenship behavior (OCB) across multiple cultures (Bourdage, Lee, Lee, & Shin, 2012; Cohen, Panter, Turan, Morse, & Kim, 2013; Marcus et al., 2007).

In addition to Honesty-Humility and Conscientiousness, research with Big Five measures of personality suggest that Emotional Stability and Agreeableness are also indicative of moral character and behavior (Berry et al., 2012; Berry et al., 2007; Graziano & Habashi, 2010; Graziano & Tobin, 2009; Henle & Gross, 2013), so we thought it was possible that the HEXACO analogues of these dimensions would emerge as important aspects of moral disposition as well.

## Guilt Proneness & Shame Proneness

There is a large and growing body of evidence showing that guilt proneness is a key element of moral character. Guilt proneness can be thought of as the strength of one’s conscience—would the person feel bad about making a mistake or committing a transgression even if no one knew about what they did? It is positively associated with prosocial behavior and negatively associated with antisocial behavior, as illustrated by a variety of different methods, including behavioral economics games (Bracht & Regner, 2013; Cohen, Wolf, Panter, & Insko, 2011), negotiation role-playing simulations (Cohen et al., 2011), coworker reported behaviors (Cohen, Panter, Turan, Morse, & Kim, 2013), and self-reported behaviors, in populations as diverse as inmates, adolescents, employed adults, and college students (e.g., Cohen et al., 2011; Cohen, Panter, Turan, 2013; Cohen, Panter, Turan, Morse, & Kim, 2013; Stuewig & McCloskey, 2005; Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney, Stuewig, & Martinez, 2014; for reviews see Cohen, Panter, & Turan, 2012; Tangney & Dearing, 2002; Tangney, Stuewig, & Hafez, 2011; Tangney, Stuewig, & Mashek, 2007; Tangney, Youman, & Stuewig, 2009).

The current research measured guilt proneness with the Guilt and Shame Proneness (GASP) scale, which also measures three related constructs: guilt-repair orientation; shame proneness; and shame-withdrawal orientation (Cohen et al., 2011; Cohen, Panter, Turan, Morse, & Kim, 2013). According to the GASP framework, guilt proneness refers to the likelihood that a person would feel bad about their behavior after committing a private transgression. Guilt-repair orientation refers to the likelihood that a person would take repair-oriented actions after committing a private transgression. Shame proneness refers to the likelihood that a person would feel bad about themselves after committing a public transgression. Shame withdrawal-orientation refers to the likelihood that a person would want to withdraw from public after committing a public transgression. Previous research with the GASP scale has demonstrated that guilt proneness, guilt-repair orientation, and shame proneness are negatively correlated with unethical decision making and behavior, whereas shame-withdrawal orientation is positively correlated with unethical decision making and delinquency (Cohen et al., 2011; Cohen, Panter, Turan, Morse, & Kim, 2013).

## Empathy & Perspective Taking

The positive relationship between empathy and prosocial behavior is well-established, as is the negative relationship between empathy and anti-social behavior (e.g., Batson et al., 2003; Eisenberg, 2000; Eisenberg & Miller, 1987; Hogan, 1973; Miller & Eisenberg, 1988; Stephan & Finlay, 1999). People who are empathic and take others’ perspectives are generally more willing to help others and less willing to harm them. In the current research we included measures of empathic concern and perspective taking from the Interpersonal Reactivity Index (Davis, 1983), both of which are aspects of empathy. The former represents the more affective component of empathy and the latter represents the more cognitive component of empathy. Specifically, empathic concern refers to the tendency to experience feelings of warmth, compassion, and concern for other people. Perspective taking refers to the tendency to adopt the point of view of other people.

## Moral Identity

We measured moral identity with the Self-Importance of Moral Identity scale, which includes two subscales: moral identity-internalization and moral identity-symbolization (Aquino & Reed, 2002). The internalization dimension captures the extent to which morality is important to an individual’s private sense of self. The symbolization dimension is more public; this subscale captures the extent to which individuals want others to see that they are moral. Both moral identity subscales have been found to predict moral behavior across multiple domains, with the internalization component generally having stronger effects (Shao, Aquino, & Freeman, 2008). For example, an internalized moral identity extends one’s circle of moral regard to those outside one’s ingroup, and this extended moral regard manifests itself in increased feelings of moral obligation to help outgroup members and donate money to them (Reed & Aquino, 2003).

More recent work on moral identity posits a social cognitive approach to moral behavior (Aquino et al., 2009). According to this framework, an individual’s moral identity is a knowledge structure stored in memory that consists of one’s “moral values, goals, traits and behavioral scripts” (Aquino, Freeman, Reed, & Felps, 2009, p. 124). As such, moral identity is thought to vary not only across individuals but also across situations, depending on what aspect of that knowledge structure has been activated. In line with this argument, Aquino and colleagues (2009) find that moral behavior increases when situational factors activate one’s moral identity (i.e., when the accessibility of morality to one’s identity increases), whereas moral behavior decreases when situational factors decrease accessibility of morality to one’s identity.

## Consideration of Future Consequences and Future Self-Continuity

Consideration of future consequences refers to the extent to which individuals think about the long-term consequences of their behavior and modify their future behavior accordingly (Strathman, Gleicher, Boninger, & Edwards, 1994). Individuals high on this individual difference are willing to sacrifice immediate gratification and happiness in order to achieve future outcomes, whereas those low on this individual difference focus on immediate outcomes and convenience. Consideration of future consequences has been linked to greater disapproval of unethical negotiation strategies and increased altruistic behavior (Hershfield, Cohen, & Thompson, 2012; Joireman, Kamdar, Daniels, & Duell, 2006; Joireman, Lasane, Bennett, Richards, & Solaimani, 2001; Joireman, Strathman, & Balliet, 2006). We used the scale developed by Strathman and colleagues (1994) in our studies.

Related to consideration of future consequences is the construct of future self-continuity, which refers to the extent to which one feels connected to one’s future self (e.g., one’s self in 10 years) (Ersner-Hershfield, Garton, Ballard, Samanez-Larkin, & Knutson, 2009). A person who is high in future self-continuity believes his or her future self will be fundamentally the same as his or her current self, whereas a person who is low in future self-continuity believes his or her future self will be fundamentally different from his or her current self. We used the single-item measure developed by Ersner-Hershfield and colleagues (2009), which has been found to correlate negatively with lying, cheating, and endorsement of unethical negotiation tactics (Hershfield, Cohen, & Thompson, 2012). However, the authors suggest that these effects could be accounted for by corresponding individual differences in consideration of future consequences.

## Moral Idealism & Relativism

Moral idealism and moral relativism are moral ideologies that differ according to the value placed on universal moral principles and concern for the welfare of others (Forsyth, 1980). Idealists are concerned about behaving fairly and justly towards others, and they believe that an action should never be taken if it may cause harm to another. Relativism is defined by a belief in situationally-based ethics. Unlike idealists, relativists reject the notion of universal moral principles and instead base their moral judgments on their feelings toward the situation at hand. We measured idealism and relativism with the Ethics Position Questionnaire (EPQ) developed by Forsyth (1980). A meta-analysis by Kish-Gephart and colleagues (Kish-Gephart, Harrison, & Treviño, 2010) on unethical choices at work found that unethical intentions were negatively related to moral idealism and positively related to moral relativism.

## Cognitive Moral Development

Cognitive moral development, also referred to as moral reasoning ability, is indicative of the complexity of a person’s thoughts about difficult moral dilemmas. We measured this construct with the short form of the most widely-used test of moral reasoning ability—the Defining Issues Test (DIT; Rest, 1986). It is based on Kohlberg’s theory of moral judgment (Kohlberg, 1969). According to the theory, there are six stages of moral development, and people in later stages are more adept at reasoning about difficult moral dilemmas than those in earlier stages. Those in advanced stages think about moral dilemmas in a sophisticated way, considering justice and societal concerns rather than obedience and punishment concerns. A meta-analysis by Kish-Gephart and colleagues (2010) found that cognitive moral development was associated with less unethical behavior in the workplace.

## Narcissism

Narcissism is considered a member of the “Dark Triad” of personality, along with Machiavellianism and psychopathy (O'Boyle, Forsyth, Banks, & McDaniel, 2012; Paulhus & Williams, 2002; Rhodewalt & Peterson, 2009). The construct has several facets, the most maladaptive of which is exploitiveness-entitlement (E/E) (Ames, Rose, & Anderson, 2006; White, 2011). People who are high in E/E find it easy to manipulate others and insist on getting respect. Prior research has demonstrated that E/E, but not other dimensions of narcissism, harms trust and relationships with negotiation counterparts (White, 2011). Due to time constraints, only the exploitiveness-entitlement facet of the Narcissism Personality Inventory-16 (Ames et al., 2006) was measured in Studies 1 and 2; in Study 3 the full NPI-16 was included.

## Machiavellianism

Machiavellianism refers to the extent to which a person is manipulative and dishonest in their interactions with others (Christie & Geis, 1970). Individuals who are high in in Machiavellianism believe in telling people what they want to hear, and that it is better to be important and dishonest rather than humble and honest. In this way, it is similar to the Honesty-Humility factor from the HEXACO (Lee & Ashton, 2005). Individuals who are low in Machiavellianism value honesty and believe that people get ahead in the world by leading moral lives. Machiavellianism is associated with unethical decision making and behavior across a variety of contexts (Hegarty & Sims, 1978; Jones & Paulhus, 2009; Kish-Gephart et al., 2010; O'Boyle et al., 2012), which is why it is considered a member of the “Dark Triad” or personality, along with psychopathy and narcissism (O'Boyle et al., 2012; Paulhus & Williams, 2002). We measured Machiavellianism with the MACH-IV Scale (Christie & Geis, 1970).

## Self-Control

Self-control refers to an ability to override desires and work effectively toward long-term goals (Baumeister, Vohs, & Tice, 2007; Tangney, Baumeister, & Boone, 2004). People who are high in self-control are disciplined and refrain from doing things that are bad for them. A number of studies have demonstrated a relationship between low self-control and increased unethical behavior (e.g., Gino, Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). We measured self-control with the brief self-control measure (Tangney et al., 2004).

## Moral Disengagement

First introduced by Albert Bandura (1986), moral disengagement refers to the extent to which individuals mentally divorce ethically-relevant features from their judgments and behavior in order to behave unethically without feeling bad for doing so (Moore, Detert, Kleve, Treviño, Baker, & Mayer, 2012). Driven by a desire to view one’s own behavior in a more positive light, those who morally disengage cognitively reframe unethical acts so that they appear less detrimental to others. Recent empirical evidence demonstrates that individuals high in moral disengagement are more likely to act unethically (e.g., lie, cheat, steal) (Moore et al., 2012). Moral disengagement was assessed only in Study 3, using a newly developed measure that was not published when we designed Studies 1 and 2 (Moore et al., 2012).

## Social Value Orientation

 Social value orientation (SVO) measures people’s resource allocation preferences. Building on earlier work by Messick and McClintock (1968) on motives in social dilemmas, SVO assesses whether people make competitive, individualistic, prosocial, or altruistic resource allocation choices (Murphy, Ackermann, & Handgraaf, 2011; Van Lange, Otten, De Bruin, & Joireman, 1997). Those with a competitive orientation are concerned with maximizing the relative difference between their own and others’ outcomes whereas people with an individualistic orientation are concerned only with their own absolute outcomes. Prosocials aim to maximize the joint outcomes of both parties, whereas the focus of concern for altruists is on maximizing others’ outcomes. Social value orientation influences cooperative and competitive behavior in social dilemmas (Balliet, Parks, & Joireman, 2009), and prosocials report donating to the poor and the ill more than individualists and competitors (Van Lange, Bekkers, Schuyt, & Van Vugt, 2007). Social value orientation was included only in Study 3, using a newly developed continuous measure that was not published when we designed Studies 1 and 2 (Murphy et al., 2011).

## Moral Foundations

Themoral foundationsframework has achieved a great deal of attention in the field of moral psychology (Graham, Haidt, & Nosek, 2009; Graham, Nosek, Haidt, Iyer, Koleva, & Ditto, 2011; Haidt, 2007). According to this perspective, there are five intuitive moral concepts, or moral foundations, that individuals may be concerned about: 1) Harm/Care 2) Fairness/Reciprocity, 3) Ingroup/Loyalty, 4) Authority/Respect, and 5) Purity/Sanctity. We measured these constructs in Study 3 with the Moral Foundation Questionnaire (MFQ; Graham et al., 2011). Harm/Care refers to wanting to avoid inflicting harm on other people. Fairness/Reciprocity represents a concern for maintaining reciprocal social relationships and achieving justice. For these two dimensions, concerns about the proper relations between individuals is the underlying focus (Graham et al., 2009). Ingroup/Loyalty refers to a desire to do what is best for one’s ingroup. Authority/Respect is represented by a concern for compliance, especially in regards to respected authority figures. Finally, Purity/Sanctity refers to a concern for maintaining bodily cleanliness and avoiding immoral activities that may contaminate oneself or affiliated others. Unlike Harm/Care and Fairness/Reciprocity, for those who value the latter dimensions, the group or collective (plus the self, for purity), not just relations between individuals, is the focus of moral concern.

While little work has investigated the relationship between moral foundations and behavior, a number of studies have explored moral judgments, social attitudes, and personality traits (Graham et al., 2009; Graham et al., 2011; Koleva, Graham, Ditto, Iyer, & Haidt, 2012; Van Leeuwen & Park, 2009). The Harm/Care and Fairness/Justice subscales, for example, have been linked to empathic concern, psychopathy, and other variables relevant to morality and ethics (Graham et al., 2011).

# Statistical Analyses

In order to fully explore our data, we estimated Principal Components Analysis (PCA) and Exploratory Factor Analysis (EFA) models in addition to the Latent Profile Analysis (LPA) models reported in the main text of the article. PCA reduces a larger set of variables to a smaller set, while retaining as much information as possible from the larger set. EFA, on the other hand, identifies relationships between measured variables and latent factors (Fabrigar & Wegener, 2012). In contrast to PCA, which uses raw scores from measured variables to derive principal components, EFA assumes that measured variables are a function of latent common factors and measurement error.

We estimated a one-factor PCA and a one-factor EFA in each study. Given the set of variables we selected, we are assuming that moral character is the common factor in these models, and as such, expected that the variables that best distinguished the low-moral-character and high-moral-character classes in the LPA models would have the highest communalities in the PCA models and highest factor loadings in the EFA models. Likewise, we expected that the variables that did not distinguish the low-moral-character and high-moral-character classes in the LPA models would have the lowest communalities and factor loadings.

We note that PCA and EFA are often used to determine the number of components or latent factors underlying a battery of measures. Given that all six HEXACO scales were included in the analyses along with many other variables, we would no doubt find that multiple personality factors are represented in our battery, and by implication, that a one-factor solution would fit less well than multi-factor solutions. However, our goal was not to explore the dimensionality or number of factors underlying the variables in our dataset, but rather to determine the extent to which each variable relates to moral character.

Tables S5 and S6 present the PCA and EFA results, alongside the LPA results. In general, the variables with the largest communalities and factor loadings were the same variables that the LPA models identified as most diagnostic of moral character.

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**Table S1.** Descriptive statistics for individual difference variables (Study 1 & Study 2).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  | ***Study 1*** | ***Study 2*** |
|  | ***Items*** | ***Min*** | ***Max*** | ***Test-Retest***  | ***M*** | ***SD*** | **α** | ***M*** | ***SD*** | **α** |
| 1. Honesty-Humility
 | 10 | 1 | 5 | .66 | 3.47 | 0.61 | 0.71 | 3.51 | 0.63 | 0.72 |
| 1. Emotionality
 | 10 | 1 | 5 | .75 | 3.09 | 0.62 | 0.74 | 3.08 | 0.61 | 0.72 |
| 1. Extraversion
 | 10 | 1 | 5 | .78 | 3.51 | 0.64 | 0.80 | 3.56 | 0.70 | 0.84 |
| 1. Agreeableness
 | 10 | 1 | 5 | .74 | 3.27 | 0.62 | 0.77 | 3.31 | 0.65 | 0.80 |
| 1. Conscientiousness
 | 10 | 1 | 5 | .71 | 3.83 | 0.57 | 0.78 | 3.86 | 0.62 | 0.81 |
| 1. Openness to Experience
 | 10 | 1 | 5 | .83 | 3.49 | 0.68 | 0.79 | 3.53 | 0.68 | 0.79 |
| 1. Guilt Proneness
 | 4 | 4 | 28 | .67 | 22.67 | 4.74 | 0.75 | 22.91 | 4.71 | 0.73 |
| 1. Guilt-Repair Orientation
 | 4 | 4 | 28 | .58 | 22.73 | 4.01 | 0.72 | 23.11 | 3.97 | 0.70 |
| 1. Shame Proneness
 | 4 | 4 | 28 | .58 | 21.45 | 4.70 | 0.68 | 21.67 | 4.95 | 0.70 |
| 1. Shame-Withdrawal Orientation
 | 4 | 4 | 28 | .56 | 11.64 | 4.88 | 0.68 | 11.69 | 4.87 | 0.62 |
| 1. Empathic Concern
 | 7 | 1 | 5 | .68 | 3.80 | 0.71 | 0.82 | 3.82 | 0.70 | 0.77 |
| 1. Perspective Taking
 | 7 | 1 | 5 | .64 | 3.61 | 0.64 | 0.77 | 3.69 | 0.63 | 0.75 |
| 1. Moral Identity-Internalization
 | 5 | 1 | 7 | .63 | 5.81 | 1.11 | 0.84 | 5.79 | 1.08 | 0.82 |
| 1. Moral Identity-Symbolization
 | 5 | 1 | 7 | .58 | 4.78 | 1.11 | 0.81 | 4.88 | 1.11 | 0.79 |
| 1. Cognitive Moral Development a
 | 51 | -- | -- | -- | 27.56 | 12.55 | -- | 28.05 | 12.30 | -- |
| 1. Moral Idealism
 | 10 | 1 | 7 | .57 | 5.17 | 0.93 | 0.84 | 5.25 | 0.89 | 0.83 |
| 1. Moral Relativism
 | 10 | 1 | 7 | .59 | 4.13 | 1.05 | 0.85 | 4.21 | 1.06 | 0.84 |
| 1. Consideration of Future Consequences
 | 12 | 1 | 5 | .59 | 3.42 | 0.56 | 0.79 | 3.42 | 0.56 | 0.76 |
| 1. Future Self-Continuity
 | 1 | 1 | 7 | .30 | 5.29 | 1.81 | -- | 5.06 | 1.98 | -- |
| 1. Exploitiveness-Entitlement
 | 5 | 0 | 1 | .59 | 0.23 | 0.23 | 0.49 | 0.20 | 0.23 | 0.50 |
| 1. Self-Control b
 | 12 | 1 | 5 | .68 | -- | -- | -- | 2.65 | 0.43 | 0.86 |
| 1. Machiavellianism b
 | 20 | 1 | 5 | .62 | -- | -- | -- | 3.62 | 0.68 | 0.73 |

*Note*. The min and max represent the scale’s minimum and maximum values (rather than the observed values). Test-retest correlations are based on 845 respondents who completed the initial and final surveys (combined data from Study 1 and 2), which were 13 weeks apart (all *ps* < .001).

a Cognitive moral development is the N2 score from the Defining Issues Test-Short Form; it was computed by *The* Center for the Study of Ethical Development. This measure was not included in the final survey.

b Study 1 did not include self-control or Machiavellianism.

**Table S2.** Correlations among individual difference variables (Study 1 & Study 2).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* |
| 1. Honesty-Humility
 | -- | -.08 | .15 | .28 | .38 | .14 | .51 | .32 | .22 | -.31 | .37 | .30 |
| 1. Emotionality
 | -.07 | -- | -.24 | -.10 | .00 | -.06 | .11 | .12 | .29 | .20 | .29 | -.01 |
| 1. Extraversion
 | .10 | -.29 | -- | .30 | .41 | .36 | .22 | .26 | -.02 | -.24 | .31 | .40 |
| 1. Agreeableness
 | .29 | -.19 | .33 | -- | .18 | .20 | .26 | .28 | .06 | -.09 | .33 | .50 |
| 1. Conscientiousness
 | .41 | -.12 | .46 | .31 | -- | .34 | .35 | .40 | .19 | -41 | .41 | .34 |
| 1. Openness to Experience
 | .20 | -.08 | .44 | .30 | .40 | -- | .20 | .29 | .08 | -.18 | .28 | .36 |
| 1. Guilt Proneness
 | .47 | .07 | .19 | .26 | .34 | .20 | -- | .60 | .53 | -.13 | .47 | .37 |
| 1. Guilt-Repair Orientation
 | .28 | .11 | .22 | .27 | .39 | .29 | .57 | -- | .48 | -.14 | .44 | .43 |
| 1. Shame Proneness
 | .23 | .29 | .01 | .13 | .18 | .12 | .52 | .49 | -- | .09 | .34 | .15 |
| 1. Shame-Withdrawal Orientation
 | -.26 | .23 | -.28 | -.12 | -.43 | -.26 | -.15 | -.16 | .05 | -- | -.20 | -.19 |
| 1. Empathic Concern
 | .34 | .23 | .24 | .32 | .43 | .31 | .45 | .39 | .36 | -.25 | -- | .58 |
| 1. Perspective Taking
 | .29 | -.04 | .39 | .51 | .48 | .41 | .37 | .41 | .25 | -.21 | .58 | -- |
| 1. Moral Identity-Internalization
 | .35 | .09 | .23 | .18 | .40 | .26 | .36 | .38 | .30 | -.37 | .58 | .40 |
| 1. Moral Identity-Symbolization
 | .02 | .07 | .36 | .28 | .20 | .28 | .19 | .22 | .19 | -.06 | .23 | .35 |
| 1. Cognitive Moral Development
 | .16 | .03 | -.02 | -.07 | .09 | .14 | .15 | .14 | .09 | -.10 | .09 | .09 |
| 1. Moral Idealism
 | .25 | .13 | .20 | .22 | .27 | .20 | .33 | .35 | .32 | -.07 | .40 | .41 |
| 1. Moral Relativism
 | -.32 | .06 | .01 | -.04 | -.17 | -.06 | -.21 | -.08 | -.13 | .20 | -.19 | -.06 |
| 1. Consideration of Future
 | .36 | -.05 | .23 | .16 | .50 | .36 | .30 | .34 | .23 | -.32 | .44 | .41 |
| 1. Future Self-Continuity
 | .17 | -.09 | .28 | .11 | .25 | .21 | .15 | .18 | .05 | -.19 | .18 | .19 |
| 1. Exploitiveness-Entitlement
 | -.47 | -.08 | .02 | -.30 | -.24 | -.06 | -.32 | -.19 | -.19 | .20 | -.38 | -.31 |
| 1. Self-Control
 | .45 | -.26 | .50 | .44 | .66 | .39 | .30 | .26 | .09 | -.28 | .34 | .45 |
| 1. Machiavellianism
 | -.49 | .04 | -.40 | -.44 | -.41 | -.25 | -.46 | -.29 | -.22 | .25 | -.52 | -.49 |

***Table S2 continued…***

***Table S2 continued…***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *13* | *14* | *15* | *16* | *17* | *18* | *19* | *20* | *21* | *22* |
| 1. Honesty-Humility
 | .33 | .06 | .08 | .22 | -.36 | .33 | .21 | -.44 | -- | -- |
| 1. Emotionality
 | .15 | .09 | -.01 | .18 | .04 | -.05 | -.11 | -.04 | -- | -- |
| 1. Extraversion
 | .26 | .36 | .05 | .26 | .00 | .27 | .18 | -.09 | -- | -- |
| 1. Agreeableness
 | .13 | .24 | -.03 | .26 | -.03 | .13 | .12 | -.38 | -- | -- |
| 1. Conscientiousness
 | .47 | .19 | .13 | .26 | -.25 | .50 | .16 | -.16 | -- | -- |
| 1. Openness to Experience
 | .29 | .26 | .13 | .19 | -.03 | .37 | .10 | -.08 | -- | -- |
| 1. Guilt Proneness
 | .44 | .26 | .17 | .37 | -.25 | .37 | .10 | -.37 | -- | -- |
| 1. Guilt-Repair Orientation
 | .45 | .27 | .16 | .38 | -.14 | .37 | .09 | -.28 | -- | -- |
| 1. Shame Proneness
 | .33 | .14 | .14 | .27 | -.11 | .22 | .00 | -.16 | -- | -- |
| 1. Shame-Withdrawal Orientation
 | -.34 | .04 | -.13 | -.06 | .24 | -.33 | -.12 | .15 | -- | -- |
| 1. Empathic Concern
 | .56 | .33 | .11 | .50 | -.20 | .37 | .12 | -.39 | -- | -- |
| 1. Perspective Taking
 | .35 | .32 | .08 | .35 | -.06 | .36 | .12 | -.33 | -- | -- |
| 1. Moral Identity-Internalization
 | -- | .31 | .22 | .41 | -.23 | .44 | .10 | -.31 | -- | -- |
| 1. Moral Identity-Symbolization
 | .21 | -- | -.01 | .37 | .04 | .11 | .07 | -.16 | -- | -- |
| 1. Cognitive Moral Development
 | .13 | -.04 | -- | .00 | -.17 | .22 | .03 | -.04 | -- | -- |
| 1. Moral Idealism
 | .35 | .32 | .02 | -- | .06 | .15 | .11 | -.23 | -- | -- |
| 1. Moral Relativism
 | -.26 | .13 | -.27 | .14 | -- | -.30 | -.10 | .16 | -- | -- |
| 1. Consideration of Future
 | .42 | .17 | .27 | .19 | -.37 | -- | .10 | -.20 | -- | -- |
| 1. Future Self-Continuity
 | .13 | .14 | .03 | .14 | -.02 | .11 | -- | -.09 | -- | -- |
| 1. Exploitiveness-Entitlement
 | -.32 | -.07 | -.06 | -.22 | .21 | -.19 | -.08 | -- | -- | -- |
| 1. Self-Control
 | .27 | .32 | -.01 | .25 | -.15 | .38 | .26 | -.26 | -- | -- |
| 1. Machiavellianism
 | -.46 | -.32 | -.14 | -.34 | .34 | -.40 | -.21 | .37 | -.48 | -- |

*Note*. Study 1 correlations are presented above the diagonal; Study 2 correlations are presented below the diagonal. Study 1 did not include self-control or Machiavellianism.

**Table S3.** Descriptive statistics for individual difference variables (Study 3).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | ***Items*** | **α** | ***N*** | ***M*** | ***SD*** | ***Min*** | ***Max*** |
| 1. Honesty-Humility
 | 10 | .71 | 571 | 3.72 | 0.59 | 2.00 | 5.00 |
| 1. Emotionality
 | 10 | .77 | 571 | 3.19 | 0.64 | 1.00 | 4.90 |
| 1. Extraversion
 | 10 | .84 | 571 | 3.29 | 0.71 | 1.00 | 5.00 |
| 1. Agreeableness
 | 10 | .78 | 571 | 3.30 | 0.60 | 1.30 | 4.80 |
| 1. Conscientiousness
 | 10 | .79 | 571 | 3.81 | 0.56 | 2.30 | 5.00 |
| 1. Openness to Experience
 | 10 | .80 | 571 | 3.40 | 0.70 | 1.00 | 5.00 |
| 1. Moral Identity Internalization
 | 5 | .84 | 578 | 6.23 | 0.90 | 1.80 | 7.00 |
| 1. Guilt Proneness
 | 5 | .80 | 572 | 4.14 | 0.81 | 1.00 | 5.00 |
| 1. Guilt Repair Orientation
 | 4 | .74 | 572 | 4.06 | 0.77 | 1.00 | 5.00 |
| 1. Empathic Concern
 | 7 | .83 | 574 | 3.86 | 0.70 | 1.00 | 5.00 |
| 1. Perspective Taking
 | 7 | .78 | 574 | 3.59 | 0.67 | 1.00 | 5.00 |
| 1. Consideration of Future Consequences
 | 12 | .80 | 568 | 3.48 | 0.58 | 1.58 | 5.00 |
| 1. Self-Control
 | 12 | .81 | 577 | 3.62 | 0.61 | 1.33 | 5.00 |
| 1. Machiavellianism
 | 20 | .73 | 574 | 2.62 | 0.41 | 1.30 | 3.90 |
| 1. Narcissism
 | 16 | .74 | 538 | 0.23 | 0.19 | 0.00 | 1.00 |
| 1. Moral Disengagement
 | 8 | .83 | 573 | 2.39 | 0.97 | 1.00 | 7.00 |
| 1. Social Value Orientation a
 | 6 | -- | 524 | 19.72 | 19.09 | -16.26 | 61.39 |
| 1. Harm Moral Foundation
 | 6 | .71 | 513 | 3.67 | 0.85 | 0.00 | 5.00 |
| 1. Fairness Moral Foundation
 | 6 | .69 | 513 | 3.64 | 0.78 | 0.00 | 5.00 |
| 1. Ingroup Moral Foundation
 | 6 | .73 | 513 | 3.22 | 0.90 | 0.00 | 5.00 |
| 1. Authority Moral Foundation
 | 6 | .73 | 513 | 3.46 | 0.86 | 0.33 | 5.00 |
| 1. Purity Moral Foundations
 | 6 | .81 | 513 | 3.39 | 1.03 | 0.00 | 5.00 |
| 1. Delinquency
 | 6 | .68 | 534 | 0.00 | 0.62 | -.38 | 4.72 |
| 1. Approval of Unethical Negotiation Behaviors
 | 13 | .95 | 569 | 2.37 | 1.22 | 1.00 | 7.00 |

*Note*. Sample sizes change due to some people failing to complete the survey or particular measures within the survey. The min and max represent the observed minimum and maximum values.

a Higher scores on Social Value Orientation indicate a more altruistic, less competitive orientation.

**Table S4.** Correlations among individual difference variables (Study 3).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* |
| 1. Honesty-Humility
 | -- |  |  |  |  |  |  |  |  |  |  |  |
| 1. Emotionality
 | -.06 | -- |  |  |  |  |  |  |  |  |  |  |
| 1. Extraversion
 | .08 | -.21 | -- |  |  |  |  |  |  |  |  |  |
| 1. Agreeableness
 | .32 | -.13 | .34 | -- |  |  |  |  |  |  |  |  |
| 1. Conscientiousness
 | .35 | -.14 | .39 | .26 | -- |  |  |  |  |  |  |  |
| 1. Openness to Experience
 | .09 | -.11 | .33 | .13 | .28 | -- |  |  |  |  |  |  |
| 1. Moral Identity Internalization
 | .33 | .17 | .25 | .28 | .33 | .18 | -- |  |  |  |  |  |
| 1. Guilt Proneness
 | .45 | .10 | .15 | .24 | .26 | .09 | .41 | -- |  |  |  |  |
| 1. Guilt Repair Orientation
 | .30 | .14 | .21 | .28 | .32 | .16 | .50 | .68 | -- |  |  |  |
| 1. Empathic Concern
 | .31 | .33 | .27 | .35 | .31 | .24 | .45 | .37 | .44 | -- |  |  |
| 1. Perspective Taking
 | .31 | .05 | .31 | .48 | .37 | .32 | .34 | .30 | .39 | .56 | -- |  |
| 1. Consideration of Future
 | .38 | -.06 | .22 | .15 | .54 | .31 | .36 | .34 | .37 | .35 | .39 | -- |
| 1. Self-Control
 | .32 | -.20 | .43 | .39 | .61 | .19 | .21 | .16 | .18 | .24 | .33 | .40 |
| 1. Machiavellianism
 | -.52 | -.03 | -.33 | -.41 | -.37 | -.16 | -.40 | -.45 | -.35 | -.43 | -.36 | -.33 |
| 1. Narcissism
 | -.38 | -.19 | .28 | -.17 | .06 | .13 | -.17 | -.21 | -.16 | -.22 | -.15 | -.11 |
| 1. Moral Disengagement
 | -.48 | -.01 | -.16 | -.17 | -.43 | -.20 | -.47 | -.43 | -.39 | -.41 | -.27 | -.50 |
| 1. Social Value Orientation a
 | .15 | -.04 | .04 | .07 | -.01 | .13 | .00 | .05 | .00 | .09 | .14 | .09 |
| 1. Harm Moral Foundation
 | .12 | .29 | .13 | .23 | .10 | .12 | .32 | .27 | .33 | .52 | .37 | .17 |
| 1. Fairness Moral Foundation
 | .03 | .18 | .14 | .17 | .15 | .10 | .32 | .23 | .33 | .43 | .33 | .20 |
| 1. Ingroup Moral Foundation
 | .00 | .10 | .20 | .15 | .12 | -.07 | .17 | .18 | .22 | .20 | .14 | -.04 |
| 1. Authority Moral Foundation
 | .09 | .09 | .18 | .18 | .21 | -.12 | .26 | .23 | .26 | .18 | .11 | .02 |
| 1. Purity Moral Foundations
 | .15 | .13 | .17 | .19 | .16 | -.06 | .24 | .28 | .26 | .27 | .16 | .07 |

***Table S4 continued…***

***Table S4 continued…***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *13* | *14* | *15* | *16* | *17* | *18* | *19* | *20* | *21* | *22* |
| 1. Honesty-Humility
 |  |  |  |  |  |  |  |  |  |  |
| 1. Emotionality
 |  |  |  |  |  |  |  |  |  |  |
| 1. Extraversion
 |  |  |  |  |  |  |  |  |  |  |
| 1. Agreeableness
 |  |  |  |  |  |  |  |  |  |  |
| 1. Conscientiousness
 |  |  |  |  |  |  |  |  |  |  |
| 1. Openness to Experience
 |  |  |  |  |  |  |  |  |  |  |
| 1. Moral Identity Internalization
 |  |  |  |  |  |  |  |  |  |  |
| 1. Guilt Proneness
 |  |  |  |  |  |  |  |  |  |  |
| 1. Guilt Repair Orientation
 |  |  |  |  |  |  |  |  |  |  |
| 1. Empathic Concern
 |  |  |  |  |  |  |  |  |  |  |
| 1. Perspective Taking
 |  |  |  |  |  |  |  |  |  |  |
| 1. Consideration of Future
 |  |  |  |  |  |  |  |  |  |  |
| 1. Self-Control
 | -- |  |  |  |  |  |  |  |  |  |
| 1. Machiavellianism
 | -.38 | -- |  |  |  |  |  |  |  |  |
| 1. Narcissism
 | .05 | .15 | -- |  |  |  |  |  |  |  |
| 1. Moral Disengagement
 | -.27 | .44 | .25 | -- |  |  |  |  |  |  |
| 1. Social Value Orientation a
 | -.02 | -.10 | -.06 | -.09 | -- |  |  |  |  |  |
| 1. Harm Moral Foundation
 | .10 | -.23 | -.22 | -.16 | .16 | -- |  |  |  |  |
| 1. Fairness Moral Foundation
 | .10 | -.17 | -.11 | -.15 | .01 | .71 | -- |  |  |  |
| 1. Ingroup Moral Foundation
 | .12 | -.16 | -.05 | .07 | -.01 | .50 | 0.43 | -- |  |  |
| 1. Authority Moral Foundation
 | .16 | -.24 | -.08 | .02 | .01 | .44 | 0.40 | .74 | -- |  |
| 1. Purity Moral Foundations
 | .20 | -.27 | -.09 | -.08 | .02 | .46 | 0.37 | .67 | .72 | -- |

*Note*. a Higher scores on social value orientation indicate a more altruistic, less competitive orientation.

**Table S5.** LPA, PCA, and EFA results indicating the relative importance of each variable for determining moral character (Study 1 & Study 2).

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable**  | **LPA: Mean difference between high and low moral character classes** | **PCA:****Communality estimates** | **EFA: Factor loadings** |
| Machiavellianism | -- / 1.87 | -- / .54 | -- / -.71 |
| Self-Control | -- / 1.65 | -- / .46 | -- / .65 |
| Empathic Concern  | 1.95 / 1.80 | .75 / .49 | .75 / .70 |
| Moral Identity-Internalization | 1.92 / 1.70 | .50 / .40 | .69 / .62 |
| Guilt Proneness | 1.76 / 1.56 | .51 / .39 | .69 / .60 |
| Guilt-Repair Orientation | 1.75 / 1.44 | .48 / .38 | .68 / .57 |
| Conscientiousness | 1.62 / 1.79 | .41 / .49 | .61 / .70 |
| Perspective Taking | 1.60 / 1.82 | .47 / .50 | .64 / .71 |
| Consideration of Future Consequences | 1.46 / 1.61 | .37 / .38 | .57 / .59 |
| Honesty-Humility  | 1.41 / 1.48 | .35 / .33 | .55 / .57 |
| Moral Idealism | 1.40 / 1.14 | .31 / .24 | .53 / .48 |
| Exploitiveness-Entitlement | 1.20 / 1.14 | .27 / .29 | -.46 / -.44 |
| Shame Proneness | 1.17 / 0.96 | .21 / .16 | .44 / .39 |
| Extraversion | 1.13 / 1.29 | .24 / .24 | .44 / .49 |
| Openness to Experience | 1.11 / 1.29 | .21 / .28 | .43 / .50 |
| Shame-Withdrawal Orientation | 0.97 / 1.07 | .14 / .18 | -.34 / -.40 |
| Moral Identity-Symbolization | 0.97 / 0.97 | .20 / .14 | .40 / .38 |
| Agreeableness | 0.96 / 1.35 | .22 / .30 | .42 / .51 |
| Moral Relativism | 0.70 / 0.86 | .08 / .11 | -.28 / -.27 |
| Cognitive Moral Development | 0.57 / 0.47 | .04 / .04 | .20 / .17 |
| Future Self-Continuity | 0.49 / 0.67 | .05 / .09 | .19 / .30 |
| Emotionality | 0.33 / 0.08 | .01 / .01 | .11 / -.04 |

*Note*. Study 1 *N* = 1020 / Study 2 *N* = 494. Estimates from Study 1 shown before the slash / Estimates from Study 2 shown after the slash. Mean differences (in standardized units) between the high-moral-character and low-moral-character classes were derived from a Latent Profile Analysis (LPA). Communality estimates were derived from a one-factor Principal Components Analysis (PCA). Factor loadings were derived from a one-factor Exploratory Factor Analysis (EFA). Variables that are more diagnostic of moral character have larger mean differences in the LPA, communalities that are larger in magnitude in the PCA, and factor loadings that are larger in magnitude in the EFA.

**Table S6.** Study 3:LPA, PCA, and EFA results indicating the relative importance of each variable for determining moral character (Study 3).

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable**  | **LPA: Mean difference between high and low moral character classes** | **PCA:****Communality estimates** | **EFA: Factor loadings** |
| Harm Moral Foundation | 1.87 | 0.41 | .61 |
| Guilt Proneness | 1.81 | 0.35 | .62 |
| Guilt-Repair | 1.81 | 0.41 | .66 |
| Empathic Concern | 1.78 | 0.54 | .69 |
| Moral Identity-Internalization | 1.77 | 0.41 | .64 |
| Fairness Moral Foundation | 1.64 | 0.35 | .53 |
| Moral Disengagement | 1.57 | 0.34 | -.58 |
| Machiavellianism | 1.56 | 0.45 | -.64 |
| Perspective Taking | 1.46 | 0.40 | .62 |
| Purity Moral Foundation | 1.38 | 0.32 | .49 |
| Honesty-Humility | 1.37 | 0.21 | .55 |
| Authority Moral Foundation | 1.36 | 0.26 | .46 |
| Conscientiousness | 1.31 | 0.33 | .57 |
| Consideration of Future Consequences | 1.28 | 0.28 | .55 |
| Ingroup Moral Foundation | 1.22 | 0.21 | .43 |
| Agreeableness | 1.06 | 0.32 | .50 |
| Self-Control | 0.95 | 0.28 | .47 |
| Extraversion | 0.92 | 0.25 | .41 |
| Narcissism | 0.78 | 0.06 | -.23 |
| Openness to Experience | 0.66 | 0.08 | .29 |
| Emotionality | 0.45 | 0.04 | .11 |
| Social Value Orientation | 0.32 | 0.02 | .09 |

*Note*. Study 3. Mean differences (in standardized units) between the high-moral-character and low-moral-character classes were derived from a Latent Profile Analysis (LPA), *N* = 659. Communality estimates were derived from a one-factor Principal Components Analysis (PCA, *N* = 254). Factor loadings were derived from a one-factor Exploratory Factor Analysis (EFA, *N* = 659). Variables that are more diagnostic of moral character have larger mean differences in the LPA, communalities that are larger in magnitude in the PCA, and factor loadings that are larger in magnitude in the EFA.