

Evaluating Validity and Deviant Personality: What the Myers Briggs Type Indicator Overlooks

Mikayla A. Burton

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**Abstract**

Perhaps the most widely recognized personality assessment in the world, the MBTI has been implemented as a valuable predictive and diagnostic tool by innumerable businesses, coaches, psychologists, and interested individuals. However, recent research has shown that the MBTI is host to a variety of significant validity issues, and the test altogether fails to address any aspects of deviant personality. A review will draw attention to the consequential validity issues of the MBTI, its overlooking of deviant personality characteristics, and the repercussions of using such an unsound and exclusive personality test. The suitability of HEXACO as a viable alternative for the MBTI will demonstrate the capability of HEXACO in assessing deviant personality.

*Keywords:* criminal psychology, MBTI validity, criminal personality assessment, HEXACO and criminal behavior, HEXACO validity

## **Evaluating Validity and Deviant Personality: What the Myers Briggs Type Indicator Overlooks**

The Myers Briggs Type Indicator (MBTI) is one of the most widely employed self-report personality questionnaires, frequently utilized by psychologists, businesses, coaches, universities, and interested individuals. Rooted in the dichotomy-heavy psychological theory proposed by Swiss psychiatrist Carl Jung, the MBTI dictates test takers to be one of sixteen personalities found within four overarching archetypes (The Myers and Briggs Foundation, 2022). The MBTI is commonly used as an assessment tool to predict a healthy, socially normal individual's behaviors, develop understanding of his or her motives and ambitions, and/or speculate the individual's compatibility with others. For example, during the hiring process, many companies will require applicants to complete the MBTI. The data collected from the test are analyzed to determine if the potential employees' personalities will align with the business's goals and current staff, as well as to inform career paths and policy for conflict resolution. However, despite the global acceptance of the MBTI as an invaluable personality assessment instrument, recent research has shown that the MBTI is psychometrically unsound, harboring an extensive collection of validity issues. Such validity concerns have yet to even address the failure of the MBTI to account for deviant behavior and personality traits. In order to obtain a significantly more accurate, functional, and comprehensive evaluation of both average and deviant personality, interested parties must disregard the grossly invalid Myers Briggs Type Indicator in favor of a more comprehensive, defensible personality type assessment.

### **Understanding the MBTI**

The Myers Briggs Type Indicator is a self-report questionnaire that classifies test-takers as one of sixteen MBTI-recognized personality types. Individuals respond to a series of ninety-

four forced-choice items based on the following four bipolar dimensions: introversion-extraversion, sensation-intuition, thinking-feeling, and judging-perceiving (Coulacoglou & Saklofske, 2018). For each item, two statements are presented: one statement that agrees with one end of a bipolar dimension, and one statement that correlates with the other end (Ashton, 2013). Test-takers must select one of the two statements as describing their personality. After all items have been responded to, participants receive their personality type which consists of four words: one word from each of the four dimensions (ex: INFJ = Introverted, Intuitive, Feeling, and Judging personality type). As described by The Myers-Briggs Company (2022) itself, the MBTI “measures four pairs of opposing preferences, which are inborn and value-neutral, to form a person’s four-letter type” (n.p.). These types are assigned based on which end of the bipolar dimension the test-taker agreed with the most. For example, individuals who more frequently selected statements corresponding with thinking, rather than feeling, will be designated as thinkers, rather than feelers. Unlike other personality assessments, the MBTI does not produce or analyze composite scores from the participants’ responses.

### **Popularity**

Undeniably, the MBTI has garnered considerable attention since its creation in 1943. It is estimated that the test accumulates over two million takers annually, and this estimation continues to grow (Essig, 2014). Even more interesting are the settings in which the test is regularly employed. Recent appraisals indicate that the MBTI is used in at least eighty-nine of the *Fortune* 100 companies. Individuals at these companies, as well as persons in a diversity of other environments, believe the test is a valuable tool in assessing personality, increasing self-enlightenment, and encouraging understanding of colleagues’ and peers’ personalities (Ashton, 2013; Nguyen, 2018). It is interesting to note that the MBTI has become so well-known and

commonplace that even a quick Google search about fictional characters on a television series or in a movie will often yield information about their four-letter personality types. Furthermore, many groups have been formed in various cities and on social media platforms to connect individuals who received the same four-letter personality type from the MBTI (Le Cunff, 2022).

### **Fallibilities of the MBTI**

The Myers Briggs Type Indicator borrows heavily from the four dichotomies (extraversion-introversion, thinking-feeling, sensing-intuition, and judging-perceiving) of Carl Jung. However, founding mother-daughter duo Katherine Cook Briggs and Isabel Briggs Myers severely distorted Jung's dichotomies into a form of typology psychology (Kelly, 2019). According to Furnham (2020), "typological theory suggests a discontinuity between similar behaviors" (p.109). Rather than having its basis in assessment of personality, the MBTI categorizes test-takers into either-or categories. For example, as aforementioned, one bipolar dimension focused on by the MBTI is extraversion-introversion. Individuals taking the MBTI, based on their responses, will be categorized as either extraverted or introverted—there is no middle ground (Owens, 2020). This either-or nature of the MBTI has made it susceptible to a variety of validity and reliability issues. The subsequent sections will address the fallibilities, or validity and reliability concerns, of the MBTI.

### ***Test-Retest Reliability***

Reliability of a psychological test is of utmost importance. If a test is not reliable, it cannot be claimed that the test is consistent in its measurements (Center for Applications of Psychological Type, 2022). Referring to the either-or essence of the Myers Briggs Type Indicator, respondents' levels of extraversion or introversion are subject to fluctuation on a daily, or even hourly, basis, and therefore test-takers may be in the extravert category at one point in

time, and the introvert category at another point in time. This raises the question: Does the MBTI have strong test-retest reliability? In order to evaluate test-retest reliability, individuals are typically asked to complete a test once and then take the test again weeks, or even a year or more, later (Pittenger, n.d.). If a test has strong test-retest reliability, the participants should receive the same results each time they take the test. Researchers examining the test-retest reliability of the MBTI asked participants to complete the self-questionnaire once, and then again a short span of five weeks later. In just over a month's time, approximately fifty percent of participants received a different personality type (Pittenger, n.d.). Thus, the MBTI has been found to have extremely poor test-retest reliability, with some researchers estimating that nearly 75 percent of test-takers will receive a different result each time they take the test (Grant, 2013). It can be concluded with reasonable confidence that the MBTI may not be a consistent measurement.

### ***Mutual Exclusivity***

Mutual exclusivity refers to two or more events or concepts that cannot occur or exist concurrently (American Psychological Association, 2022). The MBTI lacks and misconstrues this concept of mutual exclusivity. As previously discussed, the test categorizes respondents into one of a limiting sixteen categories, with various traits being combined and sub-grouped within an overarching, inflexible personality type. Many of the combined traits actually differ vastly from each other in meaning and definition, and the test-taker may score differently on assessments of each of those individual traits (Grant, 2013). The MBTI's tendency to group such traits together also contributes to its overlooking of characteristics such as emotionality or honesty-humility: two traits strongly correlated with deviant personality (Gacono & Reid, 1997).

With regard to the MBTI's fumbling of mutual exclusivity, the dichotomous nature of the test again comes to mind. While the test fails to demonstrate strong mutual exclusivity in terms of its failure to individually assess various personality traits, the MBTI seems to simultaneously over-emphasize the supposed mutual exclusivity of the personality dimensions. To simplify, the issue is that the MBTI assumes that individuals belong to either one personality category or another. In a critique of the MBTI published by the Helen Farabee Centers (2022), it was stated that, "the consequence is that the scores of two people labelled 'introverted' and 'extroverted' may be almost exactly the same, but they could be placed into different categories since they fall on either side of an imaginary dividing line" (para. 81).

### ***Criterion-Related Validity***

Though the Myers-Briggs Company (2022) boasts strong test validity, the Myers Briggs Type Indicator has received considerable criticism for its lack thereof. The National Academy of Sciences completed an extensive review of the validity and reliability of the MBTI in 1991 (Helen Farabee Centers, 2022). In assessing the criterion-related validity of the test, the Academy compared each of the four bipolar dimensions of the MBTI to similar scales, designed to measure the same or similar constructs, of other published tests. In order to have been considered valid, the dimensions of the MBTI should have correlated strongly with the similar dimensions of the other tests. Likewise, the dimensions of the MBTI should have demonstrated low correlations to items on other tests designed to measure different concepts. The extraversion-introversion measure of the MBTI was indeed found to strongly correlate and weakly correlate with similar and dissimilar measures of other tests, respectively. However, the thinking-feeling, sensation-intuition, and judging-perceiving dichotomic scales were found to have weak validity.

These findings, combined with other findings discounting the validity and reliability of the MBTI, prompted the Academy to make the following claim:

...the popularity of this instrument in the absence of proven scientific worth is troublesome. There is insufficient evidence to make claims about utility, particularly of the four letter type derived from a person's responses to the Myers Briggs Type Indicator items. (Helen Farabee Centers, 2022, para. 75)

### ***Lack of Objectivity and Self-Observer Agreement***

The Myers Briggs Type Indicator is a self-report assessment, meaning that individuals must read and respond to the items in the assessment on their own. In order to receive as accurate as possible results, individuals must answer honestly when responding to items in the test. The MBTI founders themselves noted that test results are strongly influenced by the level of honesty of the test-taker's responses (Le Cunff, 2022). For this reason, the accuracy of self-report tests is sometimes questionable, as biases and other factors may produce a lack of objectivity (Stephens-Davidowitz, 2017). Additionally, with the MBTI's self-report assessment often also comes lack of test-taker understanding (Le Cunff, 2022). When MBTI users do not understand an item on the assessment, it becomes challenging for them to accurately respond.

The MBTI has received considerable criticism due to its exclusivity of the self-report format. Other measures which include an observer-report form are generally considered to be more reliable, at least when self-observer agreement is strong (Poropat & Cummings, 2017). Due to the nature of the Myers Briggs Type Indicator being offered only in a self-report format, strength of self-observer agreement cannot be evaluated for the test. Self-observer agreement is a measure of validity that assesses if similar results will be produced if a given test is completed both in self-report form and observer-report form. When self-observer agreement is strong, it can

be reasonably assumed that the test is accurately measuring the concepts it was designed to measure.

### **Understanding Deviant Personality**

A greater, often unaddressed concern is the Myers Briggs Type Indicator's overlooking and inconsideration of deviant personality characteristics. Before examining the ways in which the MBTI fails to address deviant behavior, it is advantageous to first understand the nature of deviant behavior. The Psychopathy Checklist-Revised (PCL-R) is a psychological assessment tool that outlines sixteen traits commonly associated with deviant personality types, such as individuals with antisocial personality disorder (Bonta & Andrews, 2017). Items on the list include superficial charm, grandiose sense of worth, need for stimulation, pathological lying, impulsivity, and criminal versatility (Gacono & Reid, 1997). Other criminal research, such as that done by individuals at Harvard Medical School, has affirmed the critical roles of the aforementioned items, which are not covered by the MBTI, in deviant personality (Mayo Clinic, 2022). It is important to note that deviant behavior is not necessarily law-breaking behavior. However, deviant personality types are much more likely to engage in crime, and thus an accurate assessment of such personalities is critical to interested persons such as hiring companies (Hartney, 2020).

### **Emotionality**

Emotionality, commonly referred to as emotional stability, has been defined by the American Psychological Association (2022) as, "the degree to which an individual experiences and expresses emotions, irrespective of the quality of the emotional experience" (n.p.). Individuals who score high on measures of emotionality typically avoid physical and other forms of danger, demonstrate typical stress reactions to anxiety-inducing situations, experience

empathy, and desire and form healthy emotional attachments with other individuals (Lee & Ashton, 2022). Individuals on the other end of the emotionality spectrum do not experience fear of danger, lack normal stress reactions, and report lack of attachment to or concern for other people. Such individuals—those with low levels of emotionality—are more likely to have diagnosed mental disorders such as antisocial personality disorder (Bonta & Andrews, 2017).

Individuals who demonstrate low emotionality levels are also more prone to engaging in criminal activity (Bonta & Andrews, 2017). Researchers Caspi et al. (1994) conducted a study evaluating personality-crime links, and their findings were generalizable across countries, genders, and races. They found that negative emotionality was one of two personality dimensions strongly associated with propensity for criminal engagement. Negative emotionality may be understood as low emotionality, as its facets are aggression, alienation, and limited stress reaction. Both offenders and nonoffenders were tested in their study, and it was reported that offenders received higher negative emotionality scores than nonoffenders. Thus, emotionality is a critical marker of deviant personality and criminal engagement.

### **Honesty-Humility**

The personality dimension of honesty-humility involves an individual's sincerity, fairness, level of greed, and modesty (Lee & Ashton, 2022). Individuals determined to have high honesty-humility scores generally avoid manipulation of others, shy away from rule-breaking, are not preoccupied with material goods or fiscal value, and lack extreme feelings of entitlement. Conversely, low honesty-humility ranking individuals are commonly sycophantic, break rules for the sake of personal gain, experience material and fiscal motivations, and demonstrate an elevated sense of self-worth. Several of these traits are indicative of narcissistic personality disorder (NPD): a deviant personality condition. DSM-5 diagnostic criteria for NPD include

manipulating or otherwise using others, presenting as self-righteous or as having an inflated sense of self-worth, and obsessing over wealth or other material concepts (Legg, 2020).

It is also interesting to note that honesty-humility has been identified as a strong correlate of criminal behavior (Gelder & De Vries, 2012). A study conducted by Janko Mededovic (2017) was designed to evaluate the correlation between various personality traits and criminal engagement. One of these traits was honesty-humility. A sample of two hundred and fifty-six male convicts was collected for the study: Over fifty percent of these individuals were convicted of higher-level crimes, such as murder and armed robbery. Measures included HEXACO-PI-R, the SRP-4 Antisocial Behavior Scale, and the antisocial scale of the Psychopathy Checklist-Revised. Data were also extracted from the offender's prison files. Analyses of the assessment scores and file data led to the conclusion that honesty-humility was a major predictor of criminal engagement.

### **Agreeableness**

Agreeableness is also an aspect of personality strongly correlated with deviant behavior. Individuals who score high on psychological measures of agreeableness are consistently quick to forgive, are mostly uncritical of others, are willing to compromise and cooperate, and have well-mannered temperaments (Lee & Ashton, 2022). Low-agreeableness scoring individuals commonly hold grudges against perceived wrongdoers, are highly censorious, have stubborn personalities, and easily display aggression. Many cross-sectional studies examining personality differences in college student and offender samples have identified agreeableness, or a lack thereof, as a marker of deviant behavior (Bonta & Andrews, 2017). College students in the samples consistently score significantly higher on measures of agreeableness than do offenders.

Moreover, agreeableness as a personality dimension has been related to crime. In one study, major personality dimensions like agreeableness were assessed in their correlation to criminal propensity (Dam et al., 2018). Samples of forty male offenders, who had committed violent crimes, and forty male nonoffenders completed the NEO Personality Inventory-Revised, the Buss-Perry Aggression Questionnaire, and various self-report inventories aimed at evaluating mental stress. The violent offenders scored remarkably lower on measures of agreeableness,  $F(77) = 10.3, p = .002$ , than nonoffenders. Agreeableness was also reported as being associated with elevated levels of aggressiveness in the violent offenders ( $\beta = -.67, p = .001$ ).

### **Extraversion**

Extraversion also plays a role in the prediction of deviant behavior. Individuals who score highly on measures of extraversion generally have a positive self-concept, feel confident in groups and with public speaking, seek lively social environments, and frequently experience feelings of excitement, optimism, and positivity (Lee & Ashton, 2022). However, individuals who score lowly on extraversion measures regard themselves as unpopular, feel anxious or nervous when attention is directed at them, avoid or generally do not care for social situations, and experience little to no feelings of optimism and excitement.

Extraversion has loosely been linked to criminal behavior throughout psychological history (Bonta & Andrews, 2017). Theorists have argued that both low-end and high-end scores on extraversion measures may be indicative of deviant and/or criminal personality characteristics. Lower levels of extraversion are commonly associated with deviant personality disorders such as antisocial personality disorder (Mayo Clinic, 2022). On the other hand, high levels of extraversion are commonly associated with sensation-seeking, dominant criminal engagers. The well-known model of criminal behavior posed by Hans Eysenck claims that overly

extraverted individuals have low levels of cortisol arousal and thus engage in sensation-seeking activities that are often of a criminal nature (Kussner, 2017). This model has received a fair amount of criticism, and the role extraversion plays in deviant or criminal behavior is not yet fully understood.

### **MBTI's Oversight of Deviant Personality Characteristics**

The Myers Briggs Type Indicator entirely fails to consider dimensions of personality commonly associated with deviant, and criminal, behavior (Berry et al., 2007). When test-takers are classified as either extraverted or introverted, sensing or intuitive, judging or perceptive, or thinking or feeling, there is no place for the consideration of deviant personality traits. The sixteen personality types, as defined by the MBTI, are as follows: the Architect, Logician, Commander, Debater, Advocate, Mediator, Protagonist, Campaigner, Logistician, Defender, Executive, Consul, Virtuoso, Adventurer, Entrepreneur, and the Entertainer (16 Personalities, 2022). As will be discussed below, each of these personality types are positive: Deviant personality traits are entirely absent.

### **Positive Psychology**

The sixteen personality types, as well as their descriptions, outlined by the Myers Briggs Type Indicator are unduly positive. Even when a type's weaknesses are discussed, the weaknesses are still depicted as predominantly positive. For example, one of the weaknesses assigned to the Advocate personality type (INFJ) is "avoiding the ordinary" (16 Personalities, 2022, n.p.). This weakness is characterized by setting high goals and breaking those goals down into small, manageable subgoals. Weakness is not inherently evident in this description. Another weakness credited to the INFJ is a sense of perfectionism. While perfectionism can certainly act as a frustrating quality for perfectionistic individuals, striving to do one's best work is by no

means a notable weakness. The issue at hand is that the MBTI encourages test-takers to subscribe to a form of positive, feel-good psychology. According to Ciarrochi et al. (2016), “positive psychology has been criticized for being decontextualized and coercive, and for putting an excessive emphasis on positive states, whilst failing to adequately consider negative experiences” (p.1). In positive psychology, and in the dual statements of the Myers Briggs Type Indicator test, there is no mention of negative emotionality, impulsivity, limited agreeableness, or other negative qualities of personality that commonly correlate with deviant and criminal behavior.

### **Personality Trait Polarizations**

It is widely accepted by psychologists that common characteristics of deviant personality, such as callousness, impulsivity, and negative emotionality, can be considered as polarizations of major personality dimensions (Gaughan et al., 2012). In the words of Gaughan et al. (2012), “over the last fifteen years, a number of researchers have explored the idea that psychopathy can be understood as a configuration of extreme levels of general traits” (p.513). Although the Myers Briggs Type Indicator does assess the general traits included in the Big Five Factor Model, it does not individually assess personality dimension facets, and the nature of the inventory itself is grounded in polarization (and thus unusual polarization cannot be detected). As previously mentioned, the MBTI groups test-takers into bipolar, either-or categories. An individual is considered either introverted or extraverted; no scores of introversion or extraversion are assessed. Interestingly enough, Carl Jung himself refuted the notion of exclusively either-or personality categories, claiming that someone cannot, for example, belong exclusively to the extravert category and not present any introvert qualities (Hardy, 2020). If psychopathy is indeed

a product of and determined by either abnormally low or high scores of major personality traits, the MBTI altogether fails to appraise any potential markers of deviant personality.

### **Proposed Alternative to the MBTI–HEXACO**

While no personality type inventory will accurately and comprehensively incorporate all personality traits indicative of deviant behavior, assessments such as the HEXACO Personality Inventory-Revised are more encompassing, precise, and statistically valid. HEXACO is an acronym for honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience. At first glance, these characteristics may appear to be as surface-level as those of the MBTI, however, each of these personality attributes is comprised of numerous similar, yet distinct, traits. For example, the facet-level scales encompassed under honesty-humility include sincerity, fairness, greed avoidance, and modesty (Lee & Ashton, 2009). These sub-traits have already addressed the typical deviant characteristics of false charm, lack of morality, and manipulation that the MBTI overlooks.

### **Understanding HEXACO**

The HEXACO Personality Inventory-Revised (HEXACO-PI) is a test designed to measure six major dimensions of personality (Lee & Ashton, 2022). The development of the inventory began in 2000 under the guidance of researchers Kibeom Lee and Michael C. Ashton (2022). Six personality dimensions were identified during the inventory's construction: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience. Eighteen items were contained in each of the six dimensions for a total of one hundred and eight items. Initially, no facet-level subscales were included, and the inventory was only made available in self-report form.

After considerable revision, four facets were included within each of the six personality dimensions, for a total of twenty-four personality facets (Lee & Ashton, 2022). An additional interstitial facet, Altruism versus Antagonism, was included in order to assess traits the researchers believed were not confined to one dimension. The facets of each dimension are as follows:

- Honesty-Humility Domain
  - Sincerity
  - Fairness
  - Greed Avoidance
  - Modesty
- Emotionality Domain
  - Fearfulness
  - Anxiety
  - Dependence
  - Sentimentality
- Extraversion Domain
  - Social Self-Esteem
  - Social Boldness
  - Sociability
  - Liveliness
- Agreeableness Domain
  - Forgivingness
  - Gentleness

- Flexibility
- Patience
- Conscientiousness Domain
  - Organization
  - Diligence
  - Perfectionism
  - Prudence
- Openness to Experience Domain
  - Aesthetic
  - Inquisitiveness
  - Creativity
  - Unconventionality
- Interstitial Scale
  - Altruism versus Antagonism

In the full version of the inventory (HEXACO-200), two hundred items are included. A half-length inventory contains one hundred items (HEXACO-100), and a new abridged edition contains sixty items (HEXACO-60). An observer-report option was also added for each edition of the inventory.

Unlike the dual statement model of the MBTI, HEXACO-PI presents test-takers with one statement at a time – the total number of which depends on the inventory version – which they must rate using a five-point Likert scale (Lee & Ashton, 2022). For example, the first statement on the HEXACO-100 inventory reads: “I would be quite bored by a visit to an art gallery” (Lee & Ashton, 2022, n.p.). Test-takers must respond with one of five options: strongly disagree,

disagree, neutral, agree, or strongly agree. These options are scored on a one to five scale, and composite scores are calculated for each individual dimension facet. Composite scores are also provided for the overarching dimensions, and for the interstitial dimension. Scores closer to one indicate low levels of the trait being measured, while scores closer to five indicate high levels of the trait being measured. For example, an individual who scores 4.69 on the emotionality dimension can likely be considered 'emotionally stable', whereas an individual who scores 2.25 on the emotionality dimension likely presents lack of emotional stability.

### ***Test-Retest Reliability***

Though research on the test-retest reliability of the HEXACO-PI is still limited in comparison to some similar inventories, research that has been conducted in the last several years indicates promising results. In one study, a sample of six hundred and thirty-nine participants were asked to complete the HEXACO-100 once, and then again several weeks later (Henry et al., 2021). Cronbach's alpha was calculated for both the facets and the domains of the inventory. The mean  $\alpha$  for the two was .87. It is interesting to note that test-retest reliability coefficients are generally considered strong at .75 and above, which indicates that, at least in this study, HEXACO-100 has very strong test-retest reliability (Matheson, 2019). Additional research has confirmed these results (Moshagen et al., 2019).

### ***Self-Observer Agreement***

In order for a test to demonstrate strong self-observer agreement, results gathered from the test must be consistent between self-report administrations and observer-report administrations. As previously mentioned, level of self-observer agreement cannot be calculated for the MBTI, as it is available only in a self-report format. For the HEXACO personality inventory, however, initial analyses of self-observer agreement are auspicious. A meta-analytic

study conducted by Moshagen et al. (2019) evaluated four hundred twenty-one documents pertaining to the validity and/or reliability of the HEXACO inventory. Data and calculations of correlation coefficients for HEXACO's level of self-observer agreement were pulled from the documents. A series of statistical analyses yielded a self-observer agreement range of  $\hat{p} = .57$  to  $\hat{p} = .73$ . The authors concluded that self-observer agreement with respect to HEXACO is "generally high" (Moshagen et al., 2019, p. 192). These results indicate that HEXACO will yield similar results for an individual who is tested both in self-report and observer-report forms.

### *Internal Consistency*

The various forms of the HEXACO personality inventory have also been found to be internally consistent. The American Psychological Association's (2022) definition of internal consistency is as follows: "the degree of interrelationship or homogeneity among the items on a test, such that they are consistent with one another and measuring the same thing. Internal consistency is an index of the reliability of a test" (n.p.). HEXACO creators and researchers Lee and Ashton (2009) designed and conducted a study aimed at evaluating the internal consistency of the HEXACO inventory and selecting items to be included into the HEXACO-60 inventory. One sample of college students ( $N = 936$ ) and one sample of adults ( $N = 734$ ) were used in the study. All participants in both samples had completed a HEXACO-100 or HEXACO-PI-R test at some point in the last one to three years. Data from these test administrations were taken to select included items for HEXACO-60. Participants were then asked to complete the tentative HEXACO-60 inventory, and test-taker results were statistically analyzed across the longer, already published HEXACO inventories and the abridged sixty item version. With regard to internal consistency of HEXACO-60, mean consistencies ranged from .77 to .80 for the sample of college students and .73 to .80 for the sample of adults. Internal consistencies of the

HEXACO-PI-R ranged from .88 to .91 in the college students and from .89 to .90 in the adults. It is important to note that the difference in scores between HEXACO-60 and HEXACO-PI-R are largely due the HEXACO-PI-R's inclusion of more items than HEXACO-60. All internal consistency scores reported in the study are strong, and indicate that HEXACO demonstrates strong overall internal consistency. These findings are similar to those of Boies et al. (2004).

### *Mutual Exclusivity*

Unlike the Myers Briggs Type Indicator that focuses only on overarching dimensions of personality, the HEXACO-PI-R places emphasis on facets of major personality dimensions as well. The MBTI fails to account for these facets, and instead groups them within their broad categories. HEXACO, however, calculates individual scores for each of these subdivisions. While the MBTI severely lacks mutual exclusivity, researchers examining the validity and reliability of HEXACO have reported strong mutual exclusivity.

A study examining the psychometric properties of HEXACO was conducted shortly after the inventory's 2000 publication by researchers Boies et al. (2004). The study was designed to assess if the strong validity and reliability of the English-language version of HEXACO-100 would be consistent with validity and reliability scores of both the Korean-language and French-language versions of the one hundred-item inventory. Participants in both the French and Korean samples were instructed to complete a self-report version of the test. For the French sample, the highest reported scale intercorrelation score was .27. For the Korean sample, the highest scale intercorrelation was .25. These findings are consistent with the previous English-language scale intercorrelation scores of less than .30. Low scale intercorrelation scores indicate that the items on a test do not strongly correlate with each other and therefore measure separate concepts. Thus,

it can be said that HEXACO demonstrates strong mutual exclusivity and strong cross-cultural applicability.

### *Application to Deviant Personality and Traits*

Kibeom Lee and Michael C. Ashton (2004) conducted a study to evaluate the relationship between the Dark Triad personality traits and their HEXACO inventory, as well as the Five-Factor Model. The Dark Triad traits are psychopathy, Machiavellianism, and narcissism. Ain, Carre, Fantini-Hauwel, Baudouin, and Besche-Richard (2013) described Machiavellianism as:

a personality trait characterized by interpersonal manipulation and associated with specific patterns of emotional and social cognition skills... It includes three subscales that are (1) the use of deceit in interpersonal relationships, (2) a cynical view of human nature, and (3) the lack of morality. (p.1)

One hundred sixty-four undergraduate students were included in the sample. Participants completed the HEXACO-PI and the Five-Factor Model, and psychopathy, narcissism, and Machiavellianism were evaluated using the Primary Psychopathy Scale, Narcissistic Personality inventory, and Mach-IV scale, respectively. Lee and Ashton (2004) created a reproduced correlation matrix to evaluate correlations among HEXACO, the Five-Factor Model, and the Dark Triad traits. Each of the three Dark Triad traits correlated strongly with the honesty-humility dimension of the HEXACO-PI. For psychopathy,  $r = -.72$ ,  $r = -.57$  for Machiavellianism, and  $r = -.53$  for narcissism. In contrast, none of these traits demonstrated strong correlations with the dimensions of the Five-Factor Model, which the MBTI draws heavily from. In fact, the Five-Factor model created a correlation matrix entirely different from that which the authors designed, while the HEXACO-PI produced a nearly identical matrix.

Thus, it can be presumed with reasonable confidence that the HEXACO-PI serves as a reliable predictor of psychopathic, or deviant, personality traits.

A 2012 study confirms the application of HEXACO to the evaluation of deviant personality. A sample of two-hundred ninety undergraduate college students were asked to complete the HEXACO-PI-R and the Self-Report Psychopathy Scale: Version III (Gaughan et al., 2012). The Self-Report Psychopathy Scale: Version III (SRP-III) is a sixty-four item self-report assessment of deviant personality that produces an overall score and individual scores for interpersonal manipulation, callous effect, erratic lifestyle, and antisocial behavior. Correlations between the personality facets of the HEXACO-PI-R and the participants' scores on the SRP-III were calculated. Honesty-Humility had a reported correlation of  $r = -.48$ , emotionality of  $r = -.42$ , conscientiousness of  $r = -.30$ , and agreeableness of  $r = -.28$ . Gaughan et al. (2012) also wanted to determine the extent to which participants' scores on the HEXACO-PI-R could predict their results on the SRP-III. It was found that HEXACO predicted approximately 49% of variations in psychopathy scores.

An additional study, aimed at investigating the Big Five and HEXACO's relationships to workplace deviance, was published recently in 2018. For the purposes of the study, workplace deviance was defined as deliberate, malicious attempts on behalf of an employee to sabotage or otherwise undermine the operations of the individual's place of employment (Pletzer et al., 2018). The researchers attempted to assess whether or not the Big Five and/or HEXACO were capable of reliably predicting workplace deviance. The study was of a meta-analytic nature, and incorporated data from sixty-eight prior studies and pulled four hundred and sixty effect sizes from previous studies. HEXACO dimensions of honesty-humility, conscientiousness, agreeableness, and emotionality were found to be strongly linked to workplace deviance. The

authors' conclusion strongly supports the use of HEXACO, as compared to Big Five-based models like the MBTI, in predicting workplace variance: "Based on a meta-analytic structural equation modeling analysis, we found that the HEXACO domain scales (24.9%) explain more variance in workplace deviance than the Big Five domain scales (17.1%)" (Pletzer et al., 2018, n.p.).

The reason behind these consistent findings of strong correlations between HEXACO facets and criminal engagement is HEXACO's inclusion of items that are highly applicable to deviant personality. As previously discussed, honesty-humility, emotionality, and agreeableness are significant dimensions of deviant and criminal personality. Extraversion has been moderately linked as well. These dimensions are included in the six overarching personality dimensions of HEXACO (Lee & Ashton, 2022). While these dimensions may be found in other inventories (i.e. extraversion is part of one of the MBTI's dichotomies and is a Big Five factor), the facet-level scales that are included in HEXACO are predominately unique to the HEXACO inventory. Research examining the relationship between HEXACO's predictive ability and criminal behavior relies heavily on these facets, as varying levels of these facets comprise many aspects of deviant and criminal behavior. For example, the aforementioned 2004 Lee and Ashton study found strong correlations between the Dark Triad traits—psychopathy, Machiavellianism, and narcissism—and HEXACO personality dimension items. Psychopathy is characterized by lack of remorse or empathy, elevated sense of self-worth, and quick aggressive response, among other things (Martens, 2014). These qualities correspond to the HEXACO facets of sentimentality, social self-esteem, and patience, respectively. Similarly, narcissism is distinguished by grandiose feelings of superiority, willingness to manipulate others for personal gain, and obsession with wealth and material gain (Cleveland Clinic, 2022). These qualities are associated with

HEXACO's facets of social self-esteem, sincerity, and greed avoidance. None of these qualities have a place within the MBTI.

### **Significance**

The results of research conducted both on the Myers Briggs Type Indicator and the HEXACO-PI-R's validity and reliability, as well as their ability to predict deviant personality qualities, are clear: An alternative must be used in place of the MBTI, and HEXACO has demonstrated itself to be a viable solution. In a multitude of studies, the test-retest reliability, internal consistency, self-observer agreement, and mutual exclusivity scores of the HEXACO-PI-R are excellent, and they are applicable across various demographic contexts. Furthermore, HEXACO's individual personality dimension facets have been found to be strongly correlated to a diversity of psychopathy markers. These correlations indicate HEXACO's ability to reliably predict deviant behavior characteristics. Conversely, the MBTI has exhibited poor test-retest reliability, misconstrued mutual exclusivity, weak criterion-related validity, and has no capability of strong self-observer agreement. The MBTI's bipolar, positive psychology nature further prevents it from considering negative personality aspects.

### **Urgency for Discounting the MBTI**

Due to the Myers Briggs Type Indicator's failure to incorporate most, if any, personality traits associated with deviant personality, coupled with its feeble validity and reliability, it is imperative that MBTI users switch to a more comprehensive, accurate evaluation tool. For instance, the MBTI, when taken by an individual with antisocial personality disorder, will not produce results that indicate the individual may be on the socially deviant spectrum. Traits of deviant personality that are overlooked by the MBTI have come to be recognized as dark side personality traits. Research conducted in an effort to evaluate the MBTI's ability to assess dark

side traits has found that the MBTI does not, as a whole, correlate with such traits and is thus an inadequate measure of deviant behavior (Furnham & Crump, 2014). Additionally, improper use of the MBTI assessment may engender a variety of confirmation bias and labeling problems.

### ***Business/Organization Implications***

If a business that relies on the MBTI for potential employee evaluation was seeking to hire an applicant with ASPD, for example, the data from the test would not indicate that the applicant suffers from any sort of personality disorder. The individual would be deemed either introverted or extraverted, sensing or intuitive, thinking or feeling, and judging or perceiving. A label of introverted for instance, is not inherently negative. Rather, it implies that the individual prefers individual working environments over team exercises, and the business would take this preferred working style into account when considering hiring or placement (16 Personalities, 2022). Yet, facet-level trait assessments not offered by the MBTI may have demonstrated that the individual scores unusually low within the extraversion subdivisions of social self-esteem, social boldness, sociability, and liveliness (Lee & Ashton, 2022). Polarization on the low end of this dimension is a marker of psychopathy, and more specifically, antisocial personality disorder (Mayo Clinic, 2022). The company may hire the individual with no knowledge of their deviant tendencies, and may experience severe issues with or misconduct by the individual after hiring. Individuals with antisocial personality disorder (ASPD), according to the Mayo Clinic (2022), have the tendency to commit more crimes than the average individual due to their lack of emotion, empathy, and sense of morality. Those with ASPD are commonly deceptive, manipulative, and employ a convincing veneer of false charm.

### *Confirmation Bias and Identity Labels*

An additional issue with using the MBTI and relying on its results, regardless of the individual completing the assessment, is the tendency to succumb to confirmation bias (Essig, 2014). Confirmation bias refers to the tendency to regard, search for, and interpret information as evidence confirming an individual's preexisting beliefs and ideas. This comes into play after individuals complete the MBTI assessment and are assigned a label (Hardy, 2020). This label often becomes a prominent part of the individuals' identity, and they may refer to themselves in terms of: I am an INFJ. That is why I behave the way I do.

Katherine Cook Briggs and Isabel Briggs Myers, neither of whom held an educational background in psychology, designed the MBTI under the false notion that personality is rigid and unchangeable (Hardy, 2020). Thus, the label assigned to an individual by the MBTI is guided by the erroneous pretense that the label cannot change; the individual is who they are and that will not adjust. This fallacious state of mind leads to selectively recalling information and experiences, as individuals tend to recall and apply only actions and aspects of their personalities that align with their given label. They may become resistant to change, and instead fashion their life, due to confirmation bias, around the label the MBTI gave to them.

Additionally, from a clinical perspective, revealing MBTI test results to a client can be harmful (the implications of this issue are observable in non-clinical settings as well). Clinicians are advised to avoid placing a label on clients whenever possible, as labels can, like mentioned above, become a predominant facet of an individual's identity. In the words of Benjamin Hardy (2020), "...these labels should rarely be given to clients. The label can become infused as a significant aspect of the client's identity, greatly limiting their capacity to change" (para. 12). The key to remember here, that is blatantly unconsidered by the MBTI, is that assessment should

be considered as no more than a mere snapshot of an individual's personality, as individuals are prone to change (Neukrug & Fawcett, 2020).

This is not to mention the lack of insight and/or accountability that may be inspired by the MBTI's failure to assess deviant personality traits. Any characteristics of psychopathy will not be included in an MBTI label. Thus, the MBTI's lack of attention towards deviant characteristics furthers the inaccuracy of the labels assigned to test-takers. As previously discussed, the dimensions of the MBTI focus almost entirely on positive personality aspects (16 Personalities, 2022). Within their given labels, test-takers receive no information about deviant or negative, for lack of a better term, aspects of their personality. Furthermore, the use of the MBTI to evaluate personality, especially in a clinical setting, is baseless, as the MBTI is only geared to assess major domains of normal personality.

### **Suggestions for Future Research**

As research on the validity and reliability of HEXACO and its versions is still limited compared to that of instruments such as the Myers Briggs Type Indicator, future research should further explore the soundness of the psychometric properties of HEXACO. Furthermore, future research should examine the direct relationship between HEXACO and criminal engagement, with emphasis being placed on HEXACO's potential value in predicting and preventing crime. This area of research has only recently come to considerable attention, and thus little research currently addresses various aspects of the HEXACO-deviance relationship. Most importantly, more primary empirical research is needed in this realm. Current research primarily consists of literature reviews and secondary research. Such empirical research holds the potential to further solidify the promising aspect of using HEXACO not only as an alternative for the MBTI, but as a viable predictor of deviant behavior.

### **Conclusion**

The Myers Briggs Type Indicator has significant validity issues, as well as a comprehensive lack of coverage of deviant-associated personality traits. Research has demonstrated the psychometric shortcomings of the MBTI—the implications of which include an oversight of deviant personality characteristics. The dangers of MBTI usage include improper and potentially harmful business implementation, risk of confirmatory bias, and identity label issues. The HEXACO-PI-R inventory serves as a viable, precise, compendious alternative to the MBTI, and its validity and application to deviant behavior are promising. Future research should expand upon the validity issues of the MBTI while further highlighting the significant, negative impacts of its baseless use in relation to deviant behavior. Additionally, future research should be directed at further examining the validity and reliability of HEXACO-PI-R and its potential for predicting deviant behavior traits.

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