

Development and Validation of Moral Personality Inventory: A Semi Projective Technique

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Research on the personality traits or virtues of morality has surged in recent years. The development of moral foundations theory (MFT) has played an important role, demonstrating the breadth of morality. Moral psychology has responded by investigating how different domains of moral judgment are shaped by a variety of psychological factors. Yet, the discipline lacks a validated set of moral explanation for moral personality or character. In this paper, this gap is addressed by developing and validating a set of moral virtues or traits. It is novel and an indigenous endeavour to tap moral character keeping in mind own culture traditions and norms. The questions to gauge different moral virtues, strengths and competencies grounded in own culture, values, norms and reflection of various theories and literature based on them. Scale has been developed in three phases. Phase one comprised of generation of item pool and phase two address the final selection of items for empirical validation. Phase III address the empirical validation on the sample of 500 undergraduate and post graduate students. Results showed that scale has the following six moral characters as final moral personality inventory i.e., honesty, empathy, loyalty, moral courage, fortitude and responsibility are identified as scales of moral character. Convergent and discriminant validities have also been established. Further, results reflect the high alpha reliabilities values greater than .90 and high correlation values as a sign of reliable measure for further use in research.

Keywords. Moral character, semi projective technique, virtues, empathy, moral courage, fortitude

Psychologists have defined morality in a several ways, associated with certain theoretical assumptions. Some have defined morality as

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the ability to follow almost any type of norm endorsed in a society (Haidt, 2008). Some have defined morality as involving substantive issues such as others' rights and welfare, justice, or fairness (Gray et al., 2012). Other approaches to morality have endorsed a broad definition of a moral sense as the tendency to see certain actions and individuals as right, good, and deserving of reward, and others as wrong, bad, and deserving of punishment (Wynn & Bloom, 2014). Wynne and Walberg (1984) defined moral character as engaging in morally relevant conduct or words or refraining from certain conduct and words. Virtues are combination of natural predispositions and interactions with the environment that involve both reflection and commitment to moral values and behavior. As personality constructs, virtues are habitual ways of thinking, feeling, committing, and acting that reproduce moral character. Moral virtues are character dispositions that indicate the right ends of actions, while practical wisdom is the virtue responsible for indicating the means to achieve such ends (Ames et al., 2020). The moment virtuous actions, such as courage and honesty are repeated, they turn into habits, and, in the long run, and these habits determine moral character. The virtuous agent expresses virtues in their actions, and therefore their actions and personal traits can serve as a reference for others (Alzola, 2015).

Virtue ethics has been established through both Western and Eastern perspectives (Alzola et al., 2020), that outspread from moral traditions related to organizations' ethical issues and different functions of organization (Ferrero & Sison, 2014).

Recent studies share the concept of cardinal virtues pivots of virtues inherited from Aristotelian and Thomistic traditions (Sánchez & Medina, 2013). There are four cardinal virtues: temperance, also known as self-control (Sanz & Fontrodona, 2019); fortitude; justice (Sánchez & Medina, 2013); and prudence (Ames et al., 2020). Numerous authors have established lists of important virtues; Borba (2001) suggests empathy, respect, courtesy, kindness, tolerance, and fairness. Hoffman's (2000) also identified empathy as a critical emotion. Walker (2002) classifies a fairly small set of moral attributes. The first cluster includes honesty, truthfulness, and trustworthiness; a second includes care, compassion, thoughtfulness, and considerateness. Seligman (2002) identified 25 positive identity traits, which he labeled as "signature strengths" in five categories: wisdom and knowledge, courage, love and humanity, justice, temperance, and spirituality and transcendence. Cognitive strengths like creativity, curiosity, judgment, love of learning, and perspective entail the acquisition and use of knowledge. Emotional strengths like bravery, perseverance, honesty, and zest involve the exercise of will to

accomplish goals in the face of external or internal opposition. Interpersonal strengths like capacity to love and be loved (short: love), kindness, and social intelligence involve “tending and befriending” others. Civic strengths like teamwork, fairness, and leadership underlie healthy community life. Strengths protecting against excess are forgiveness, modesty, prudence, and self-regulation. Strengths of transcendence are appreciation of beauty and excellence, gratitude, hope, humor, and religiousness (Seligman, 2002).

Honesty-Humility “represents the tendency to be fair and genuine in dealing with others, in the sense of cooperating with others even when one might exploit them without suffering retaliation” (Ashton & Lee, 2007). Honesty-Humility encompasses sincerity, fairness, greed avoidance, and modesty; Emotionality covers fearfulness, anxiety, dependence, and sentimentality; Extraversion encompasses expressiveness, social boldness, sociability, and liveliness; Agreeableness includes forgivingness, gentleness, flexibility, and patience; Conscientiousness encompasses organization, diligence, perfectionism, and prudence; and Openness to Experience encompasses aesthetic appreciation, inquisitiveness, creativity, and unconventionality. Conscientiousness, like honesty-humility, is one of the six broad dimensions of personality (Ashton & Lee, 2007). A person who is high on conscientiousness is dependable, self-disciplined, and careful; a person low on conscientiousness is irresponsible, lazy, and disorganized. Conscientiousness is one of the strongest predictors of counterproductive behaviors, it is a chief focus of integrity tests (Marcus et al., 2007; Van Iddekinge et al., 2012). Empathic concern is indicative of a disposition toward experiencing feelings of warmth, sympathy, and compassion for others. There are large literatures in developmental and social/personality psychology establishing the importance of empathy for moral development and behavior (Batson et al., 2003; Eisenberg, 2000).

Finally, we would be remiss if we neglected to discuss individual differences in moral foundations given the amount of research attention has generated in recent years (Graham et al., 2013). Coined in 1930’s the term projective test originated from psychoanalytical school of thought. It had an important impact in development and history of psychology (Leichtman, 2003). Over the years, projective techniques were used commonly in adult, child and adolescent assessment (Cashel, 2002). It’s utilized by school psychologists (Miller & Nickerson, 2007), applied in forensic settings (Hamel et al., 2001) as brand development research (Chandler et al., 2002), in educational research (Catterall & Ibbotson, 2000). This is because it helps people to articulate and know features and feelings that may

otherwise prove hard to access and may therefore remain unrecognized.

Approximately over a decade, the definition and knowledge regarding projective tests have been a constant and unfortunately unresolved discussion among psychologists. The projection of inner perceptions to the outside environment is a primitive mechanism. It has the greatest share in shaping one's outer world. The distinction between projective and non-projective tests is vague. "There is a distinction between the projective and objective assessments based on freedom of responses. Professionals say that everything exposed in response to a stimulus has important meaning because people reveal conflicts, anxieties, attitudes, beliefs, and needs in attempt to structure or complete a stimulus (Stricker & Samary, 2004).

Projective techniques are sufficiently multipurpose to be employed within a wide range of research strategies and applications. They can be involving and fun for respondents, knock feelings, perceptions and attitudes that can be hard to access by more direct questioning techniques and can be a rich source of new clues and ideas for researchers. Projective techniques de-personalize the stimuli to the respondent thereby numbing the respondent to the answer they give and neutralizing their conscious defenses about the answer they give (Boddy, 2005; Ramsey et al., 2006). Projective methods are measured indirect, which means the subject is not attentive of how their responses are being evaluated so they may be less susceptible to faking responses or causing resistance (Lichtenberg, 1985). Control or censorship may also occur because the subject may be concerned about value judgments and the acceptability of their answers by the examiner (Exner, 1993). "The overall nature of projective methods, the nature in which they function, the kinds of information they provide, and the reasons for using them are identical for persons of almost all ages" (Weiner & Kuehnle, 2000, p. 436). However, there were many concerns and critiques of projective techniques over the last decades (Butcher, 2006). However, other researchers, in reviewing meta-analytic studies, have reported positive differential diagnostic outcomes regarding several projective tests (Kubiszyn et al., 2000).

In recent years Psychometric theory supported by advancements in statistical modeling, hypothesize that all assessment methods have weaknesses with regard to validity issues (Meyer et al., 2001). Considerate, academic negation to attacks on the viability of projective tests, have been scarce (Weiner et al., 2012). Similarly, the evidence proposes that practitioners view the merits of projective

testing as a diagnostic tool, as direction for progress in therapy, and as a compliment to the overall assessment enterprise (Basu, 2014).

There is a multi-dimensional approach been used to measure morality. These Scales includes, Study of Values (Kopelman, Rovenpor, & Guan, 2003), Virtues Scale (Cawley et al., 2000). Value Survey (Schwartz, 1992), Values in Action Questionnaire (Peterson & Seligman, 2004), HEXACO-60 Personality Inventory (Ashton & Lee, 2007), Moral Foundations Questionnaire (Graham et al., 2011), the Guilt and Shame Proneness (GASP) and Portrait Values Questionnaire (Schwartz, 2012). These measures are mostly objective in nature and research has shown less attention in measuring morality by using projective technique. So far very less indigenous efforts have been made on the subject to make a moral inventory based on projective technique in eastern culture. The present study discusses the importance of moral character in developing a moral personality inventory based on semi projective technique. Developing and validating a psychological test in social and behavioral sciences is crucial and quite cumbersome. As this is a new an indigenous endeavour to tap moral character keeping in mind own culture traditions and norms. Thus questions to gauge different moral virtues, strengths and competencies are grounded in own culture, values, norms and deliberation on various theories and literature based on them. Lastly, the novelty of the concept brings strong confidence, as almost all the inventories and innovations in the field are mostly foreign based. Meager cross cultural difference in the area has been measured. This research will be a step toward it.

Objective

The objective of the study is to develop and validate a Moral Personality Inventory measuring moral character applying semi projective technique.

Method

Phase I: Generation of Items Pool

As a novel concept and semi project technique in nature, test items were generated with deductive method. Discussions and advice of experts and visiting literature on various tests already developed on the subject. Observations and discussions looking into various cultural and religious belief systems were also catered as a guide to generate test items. Sources of moral development i.e. family, school and universities were also studied in this regard. Items were formulated in

form of questions related to routine life covering different virtues and constructs. The questions are asked directly about the hypothetical character imagined by the subject.

The first step is to articulate the construct which is moral character. Domains are defined and the item pool was generated as per constructs or virtues. This process is also called “question development” or “item generation” (Kline, 1993). Initially, 179 initial item pool was generated which was minimum twice as long as the desired final scale (Weiner et al., 2012). Item pool was in the shape of questions related to routine life of imagined person. Questions are formulated in simple and understandable English which can be comprehended by all bringing consistency in understanding. The response is again in the form of one or two liner in simple English language, as the sample consists of literate respondents having graduation and post-graduation qualification. For present study, after gone over a sizeable literature and own cultural norms; honesty, empathy, loyalty, moral courage, fortitude and responsibility are identified as scales of moral character. The questions being asked are from normal life taping above mentioned character virtues and strengths in the respondent using semi projective technique.

Phase II: Final Selection of Items

Subject matter experts evaluate the face validity, which is a component of content validity (Haynes & Kubany 1995). The five judges were senior most Psychologists (Ph.D) having practical experience in clinical and personality assessment and test development. Minimum agreement of three judges on each item was accept making percentage 60 percent agreement of judges. Any item on which less than 3 judges has shown disagreement were not included. After expert judgment, cognitive interviews were conducted with ten respondents with similar characteristics to the target population to refine and assess item interpretation and to finalize item structure. Pre-testing has helped to ensure that items are meaningful to the target population before the test is administered, i.e., it minimizes misunderstanding and eliminates poorly worded items and facilitates revision of phrasing to be maximally understood, it also served to reduce the cognitive burden on research participants. 69 items were dropped after cognitive interviews and judges panel and 88 items were selected for pilot study. Item analysis of each construct of moral character is calculated with minimum acceptable corrected item total correlation 0.35. 11 Items having less than .35 values were discarded bringing the number of selected items to 77.

Phase III: Empirical Validation of Scale

Sample

A convenient sample of graduate and post graduate students ($N = 500$) including male ($n = 361$) and female ($n = 139$) students with 16 and above years of age was taken from various universities of all the provinces for the study for better generalization and representativeness. Clark and Watson (1995) propose using 300 respondents after initial pre-testing. Others have recommended a range of 200–300 as appropriate for factor analysis. [Guadagnoli and Velicer \(1988\)](#) suggested that a minimum sample of 300–450 is required to observe an acceptable comparability of patterns, and that replication is required if the sample size is < 300 . [Comrey and Lee \(1992\)](#) suggest a graded scale of sample sizes for scale development: 100 = poor, 200 = fair, 300 = good, 500 = very good, $\geq 1,000$ = excellent.

Procedure

Data was collected from university students. The study employed a quantitative method, 500 graduate and post graduate students from 16 and above years of age were taken as sample from various universities of all the provinces for the study, for better generalization and representativeness. Data was collected on items pool of Moral Personality Inventory developed and refined in phase I and II of present research. The participants were given a brief explanation of study objectives. They were ensured about their confidentiality of data. Moreover, researcher helped them in case of any confusion they face. At the end of data collection, researcher thanked the participants for taking part in the study.

Results

The author has calculated scale scores by using confirmatory factor analysis. The analyses were carried through the SmartPLS 3.0, the widely accepted reporting of analysis as suggested by [Vinzi et al., 2010](#)). As Moral Personality Inventory (MPI) is a new endeavor, validity and reliability of the constructs are validated using to assess measurement model. The validity and reliability of the measurement model is evaluated by assessing (1) internal consistency reliability (2) indicator reliability (3) convergent validity (4) discriminant validity.

Inventory (MPI) the constructs reliability of each construct (empathy, moral courage, fortitude, honesty, loyalty and responsibility) ranges from 0.97-0.98. The results depicts that the items (questions) used represent good internal consistency.

Indicator Reliability

Indicator reliability of the measurement model is measured by examining the item loading. A measurement model is said to be satisfactory if indicating reliability that each items loading estimates is higher between 0.5-0.7 (Hair et al., 2010).

Cross Loading

Cross loading help assess if an item belongs to a particular construct loads strongly onto its own parent construct instead of other constructs in the study. The results show that factor loading of all the items are weaker on the underlining constructs to which they belong to rather majority of the items loaded in parent construct of moral character hence based on the evaluation of cross loading discriminant validity was not attained.

Convergent validity

The convergent validity of measurement model is assessed by average variance extracted (AVE). Convergent validity is said to be adequate when constructs have an average variance extracted value close to 0.5 (Fornell & Larcker, 1981). Convergent validity results based on AVE statistics in the current study show all the constructs are satisfactory. Ranging from 0.68-0.74 as shown below.

Table 2: *Construct validity- Average Variance Extracted (AVE) (N = 500)*

Variables	Average variance extracted (AVE)
Empathy	0.681
Fortitude	0.715
Honesty	0.702
Loyalty	0.699
Moral Courage	0.744
Responsibility	0.700

Discriminant Validity: Fornell and Larcker Criterion

According to [Fornell and Larcker \(1981\)](#) criterion and discriminant validity is established when the square root of AVE for a construct is greater than its correlations with all other constructs. In this study, square root of AVE (in bold and italics) for a construct was found less than its correlation with other constructs providing weak support for establishment of discriminant validity.

Table 3: *Discriminant Validity- Fornell and Larcker Criterion (N = 500)*

#	Variables	1	2	3	4	5	6
1	Empathy	0.825					
2	Fortitude	0.977	0.846				
3	Honesty	0.972	0.972	0.838			
4	Loyalty	0.973	0.973	0.977	0.836		
5	Moral Courage	0.981	0.984	0.977	0.974	0.862	
6	Responsibility	0.971	0.971	0.981	0.973	0.975	0.837

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Heterotrait-Monotrait Ratio (HTMT)

Heterotrait-Monotrait Ratio (HTMT) is based on the estimation of the correlation between the constructs. Discriminant validity is established based on HTMT ratio.

Table 4: *Discriminant Validity- Heterotrait-Monotrait Ratio (HTMT) (N = 500)*

#	Variables	1	2	3	4	5	6
1	Empathy						
2	Fortitude	1.006					
3	Honesty	0.996	0.993				
4	Loyalty	1.004	1.003	1.005			
5	Moral Courage	1.007	1.005	0.996	0.999		
6	Responsibility	1.002	1	1.013	1.006	1	

The threshold for HTMT has been debated (Kline, 1993) and suggest threshold of 0.85 or less while Teo (2011) recommended a liberal threshold of 0.90 or less. The HTMT results presented in Table 4 show the HTMT ratio for study constructs are greater than the required threshold of 0.90.

Table 5: *Psychometric Properties of Moral Personality Inventory (N = 500)*

Variables	k	α	M	SD	Range		Skew	Kurt
					Actual	Potential		
Empathy	14	.961	46.81	10.93	6-22	0-84	.19	.62
Moral	17	.968	58.84	12.48	22-96	0-102	.24	.35
Fortitude	15	.967	49.36	11.97	70-18	0-90	.47	.56
Loyalty	13	.961	46.72	10.73	63-15	0-78	.15	.42
Honesty	16	.967	53.07	13.81	81-13	0-96	.06	.28
Responsibility	13	.961	44.38	11.02	65-13	0-78	.22	.32

Table 5 shows the descriptive statistics for the subscales in study. The results indicate the alpha reliability, Skewness and Kurtosis for the subscales of moral personality Inventory. These descriptive statistics were computed to check the overall distribution of data across study variables. The findings provide evidence for the strong reliability of all the subscales used in the research. This indicates that the instruments possess internal consistency and are reliable to proceed with further analysis. Acceptable range of Skewness and kurtosis is -3 to +3. The result of the study lies within the acceptable range which indicates that data is normally distributed.

Table 6: *Correlation of Subscale Empathy, Moral courage, Fortitude, Loyalty, Honesty, Responsibility and Narcissism (N = 500)*

#	Variables	1	2	3	4	5	6
1	Empathy	-					
2	Moral Courage	.82**	-				
3	Fortitude	.79**	.84**	-			
4	Loyalty	.77**	.78**	.77**	-		
5	Honesty	.75**	.78**	.76**	.82**	-	
6	Responsibility	.74**	.76**	.74**	.79**	.84**	-

Note. ** $p < 0.01$.

One of the objectives of the study was to explore the relationship between the subscales of Moral Personality Inventory. The correlation coefficients of the sub scales; Empathy, Moral courage, Fortitude, Loyalty, Honesty, Responsibility and Narcissism were estimate for this purpose to check whether or not the study construct are significantly related to one another. As shown in [Table 6](#), significant positive correlations were found among the Subscale Empathy, Moral courage, Fortitude, Loyalty, Honesty, Responsibility of moral personality inventory

Discussion

The current study aimed to develop and validate a Moral Personality Inventory; applying semi projective technique. Construction Technique is used for creating an imaginable production for which the test materials provide a frame work completing a character from a semi-structured stimulus in a form of questions about an imagined person. The first step is to articulate the construct which is moral character. After the domain is defined, and the item pool was generated as per constructs or virtues. This process is also called “question development” or “item generation” ([Hinkin, 1995](#)). Initially, 179 initial item pool was generated which were minimum twice as long as the desired final scale ([Weiner et al., 2012](#)).

Item pool was in the shape of questions related to routine life of imagined person. Questions are formulated in simple and understandable English which can be comprehended by all bringing consistency in understanding. The response is again in the form of one or two liner in simple English language, as the sample consists of literate respondents having graduation and post-graduation qualification. Target population judges were experts at evaluating face validity, which is a component of content validity ([Haynes et al., 1995](#)). The five judges were senior most Psychologists (Ph.D) having practical experience in clinical and personality assessment and test development. Minimum agreement of three judges on each item was accept making percentage 60 percent agreement of judges. Any item on which less than 3 judges has shown disagreement were not included. After expert judgment, cognitive interviews were conducted with ten respondents with similar characteristics to the target population to refine and assess item interpretation and to finalize item structure. Pre-testing has helped to ensure that items are meaningful to the target population before the test is administered, i.e., it minimizes misunderstanding and eliminates poorly worded items and facilitates revision of phrasing to be maximally understood, it also served to reduce the cognitive burden on research participants. 69 items were

dropped after cognitive interviews and judges panel and 88 items were selected for pilot study. Honesty, empathy, loyalty, moral courage, and a feeling of responsibility are just a few of the many various characteristics that make up moral character. These moral qualities or attributes might occasionally clash with one another. There are still important problems about how moral character is considered to be structured. Which moral characters traits are most important in determining how someone is perceived, and how do these traits interact to create overall impressions? Compassion, justice, loyalty, calmness, and respect for authority are all emphasized by [Graham et al. \(2009\)](#). Wisdom, courage, humanism, justice, temperance, and transcendence are highlighted in the Values in Action Inventory of Strengths. Each of these qualities is made up of its own.

Since they are mostly predicated on notions about which aspects of moral character should be given priority, these current taxonomies reflect theory-driven approaches to comprehending the structure of moral character. These theories provide light, but they can be strengthened by combining them with a less restrictive, bottom-up method that extracts the qualities of character from the ideas of regular people. Recent empirical evidence supports a crucial contrast between "core goodness" (e.g., compassion, honesty) and "value commitment" (e.g., dedication, commitment) qualities. While value-commitment features increase the perceived morality of good and neutral agents while amplifying the perceived immorality of bad agents, core-goodness traits unconditionally increase the perceived morality of any actor, whether good, evil, or neutral. There is a great deal of overlap among these psychological-component models of moral character, same is present in the conceptual models of [Berkowitz \(2002\)](#), [Lickona \(1991\)](#), [Narvaez and Rest \(1995\)](#). Their conceptual models bare some resemblance to those proposed by Plato, Confucius, and Freud ([Vessels, 1998](#)). Differences are largely a matter of emphasis rather than substance. It seems reasonable to conclude, therefore, that character is a multi-faceted psychological and behavioral phenomenon that involves the predictable co-occurrence and inter-connectedness of its many psychological and behavioral components with the level of character being determined by the consistency and strength with which these components co-occur in response to challenging life events.

These psychological-component theories of moral character share many similarities, as do the conceptual models of [Narvaez and Rest \(1995\)](#), [Lickona \(1991\)](#), and [Berkowitz \(2002\)](#). Their conceptual frameworks bear some similarities to those put out by Freud, Plato, and Confucius ([Vessels, 1998](#)). Most of the time, differences are more

about emphasis than content. Therefore, it would seem reasonable to conclude that character is a complex psychological and behavioral phenomenon that involves the predictable co-occurrence and interconnectedness of its many psychological and behavioral components, with the degree of character being determined by the strong and consistent co-occurrence of these components in response to difficult life events.

Conclusion

Concept of Moral Character remained a debatable concept since long. Present statistics depicts that moral character in itself a virtue or traits which envisage certain interlinked and overlapping virtue and trails. Precisely, construct of moral character is stands on the pillars of empathy, loyalty, responsibility, fortitude, moral courage and honesty. The mechanics of these six virtues from a moral character in an individual depend upon intensity or presence of each virtue in every individual.

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Received 30 January 2025
Revision received 19 February 2025