

The Development of a Bio-Psychocultural Monograph on Perceptual Visual-Motor and Personality Screening Index: Oshodi Visual-Motor Optimal Test (OVMOT)

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Abstract

The aim of this study was to find out if there is a relationship between one's racial worldview, ethnic history, or cultural background and performance on visual-motor perceptual measures. The study also explored whether a newly developed visual-motor perceptual measure, the Oshodi Visual Motor Optimal Test (OVMOT), would serve as a parallel measure to existing Euro-American based visual-motor perceptual measures, the Bender-Gestalt Visual-Motor test in particular. A sample of 90 participants, African-American, Nigerian, and white Americans, participated in the study. Two visual-motor perceptual tests were used, the Bender-Gestalt Visual Motor test and the Oshodi Visual Motor Optimal Test (OVMOT). The study results revealed that there was generally a significant effect of cultural, ethnic, and epistemological worldviews on perception. Also the OVMOT was seen as significant in emotional and personality functioning. The study result was discussed according to the relevant literature research outcomes and a number of recommendations were suggested.

Key Words: Visual; Motor; Perceptual; Personality; African; Measure; Oshodi

1. Introduction

As we gradually move into the 21st century, the entire domain of human psychological science, practice, and operation continue to remain historical and deeply embedded in the psychology of the Europe-American world view (Diop, 1991; Oshodi, 2011; Azibo, 1989, 1991; Myers, 1988; Abraham, 1962; Nsamenang, 1992). Psychology is branded as the science of human behavior and mental process, therefore, it is only common sense and logical that "human behavior in all parts of the world must be investigated, not just those aspects of behavior conveniently available for investigators in highly industrialized nations with a history of scientific endeavor." (Triandis and Brislin, 1984, P. 1006)

As rightly presented in cultural psychology (Segall, et. al; 1990) cross-cultural psychology is viewed as "the scientific study of human behavior and its transmission, taking into account the ways in which behaviors (perception and personality) are shaped and influenced by social and cultural forces" (P. 3).

Due to the parochial and ethnocentric nature of Eurocentric psychology, western-oriented psychology is endowed as the law of universality and as "the standard" by which other cultures should measure up (Segall, et. al; 1990, P. 93). The domain of Eurocentric epistemology and the nature, content, and process of perception and personality patterns remain rooted in the history of Euro-America (Oshodi, 2011, 2005, 1996; Baldwin, 1991, 1985).

In today's postmodern world, there is a continued empirical endeavor to understand the importance of worldviews in psychological processes, particularly in the areas of perception, cognition, and personality. There is the need to collectively question the universal application of western psychology given that its data base historically excludes the majority of humans who live in Asia and the southern hemisphere. The notions of perception and personality have particularly been markedly distorted by Euro-American epistemological patterns whose invasive ideology have not only rejected the worth of the African epistemological order, but have been markedly pervasive in that it took on numerous clothings in terms of dominance (Wallerstein, 1986).

In terms of historical analysis, the entire push to the study of perception in psychology "derives aesthetic appeal from abstract linear design rather than from the naturalistic presentation..." (Tieney and Painter, 1983, P. 14) as

the historical designs of the black African heritage are known for their circular orientation. The historical mark of the “linear patterns” of European art has not only dominated the approach to the study of perception, but has resulted in the linearization and mechanization of the field of personality psychology (Oshodi, 2011). For more than 100 years Euro-American or western psychology has confirmed and universalized these historical impressions on perception, cognition, and emotions while intentionally minimizing or excluding the historiography of perception and personality patterns of African humans, especially when the psychology of perception and personality patterns in the African worldview are ingrained and marked with spirituality, wholism, circularity, and a harmonious reality (Asante, 1987, 1990, 1999).

Fundamental to this study is the African perspective on motor-visual orientations and personality. The theoretical analysis of black-oriented personality and motor-visual behaviors could be scientifically valid if mainly approached from the historical, philosophical, and cultural frameworks of the African phenomena. Unlike the Eurocentric perspective on personality and perception, which is classically patchy in nature along the line of four areas, namely the psychoanalytic, trait, humanistic, and social cognitive perspectives; African centered or Afrocentric-oriented psychological scholars fundamentally agree that the primary components underlying personality and perceptual characteristics is the human’s spirituality, which is interchangeably expressed emotionally, physically, cognitively, motivationally, and socially (Azibo, 1989; Myers, 1988; Akbar, 1996; Azenabor, 1998).

While it is generally recognized that the study of personality and perceptual functioning have mostly been assessed from a pathological model by Eurocentric scholars with Sigmund Freud as the helm (Freud, 1940; Alexander, 1940), African centered philosophers and psychologists (Diop, 1991; Azibo, 1989; Oshodi, 2011) continue to approach the study and conceptualization of personality and perceptual functioning fundamentally from the orientation of positive psychological perspectives. The African view of human personality remains generally dynamic and spiritual in nature with extensions such as the physical and mental, which allow one to interact with one’s everyday environment. The psycho-africalytic model of personality, perception, and motivation centers around the deep and underlying biogenetic and conscious needs used to energize the achievement motive (Oshodi, 2011).

The historical effects of human archeology and architecture, particularly relating to art forms and designs, have been known to reflect the inner markings of one’s perceptual and personality functioning (Arnheim, 1977). In the black culture at least historically, the architectural symbols and forms of human dwellings and activities have intrinsically been circular with a focus on harmony. The notion of linearity and angulation as is commonly known with Eurocentric architectural symbols, and designs have with time resulted in a Euro-linear approach to psychological phenomena.

Within the framework of perceptual psychology, the Gestalt theory in particular was founded in Germany and brought to America by Kurt Koffka, Max Wertheimer, and Wolfgang Köhler (Schultz, & Schultz, 1987). In general, Gestalt theorists with their roots in Euro-American aesthetic their epistemological worldview have successfully dominated the theory of perception, which remains the bedrock of visual motor models and perceptual research in psychology. This Gestalt approach to perception remains diametrically opposite to the African centered view of perceptual functioning and dimensions (Oshodi, 2011). The role of culture and eco-cultural environment has continuously been downplayed by gestaltians and it is argued here that every effort to continue to approach the development of perceptual psychology should go beyond the basic biological domains of perception and should include other universal characteristics known in the diverse cultures of humans.

It is generally accepted that the biological processes in perception utilizes the same sensory motor elements as one perceives the outside world. Beyond this notion of shared bio-perceptual formations, every other determinant, perspective, interpretation, and approach to the definition and conceptualization of perception becomes inherently cultural and experiential (Segall, Campbell & Herskovits, 1966, 1963; Berry, 1971, 2000, 1968; Cole and Gay, 1972).

It is widely known in cultural psychology that culture generally varies in terms of human-made aspect of the environment (Herskovits, 1955) and consists of both objective elements (e.g., tools, roads, lodgings) and subjective elements, or a “group’s characteristic way of perceiving its social environment” (Triandis, Malpass & Davidson, 1972, P. 3). The multidimensional nature and environment of non-western culture, like that of groups of African ancestry, is reflected beliefs, shared attitudes, principles, norms, role, personal definitions, and values of members of each culture structured around a theme. (Triandis & Brislin, 1984) This study is built on

this cultural reality unlike the psychological roots of perceptual and personality studies, which have long shaped the one-dimensional work of theorists like Laurretta Bender.

2. Theoretical Roots of Laurretta Bender's Visual-Motor Test

Laurretta Bender's perceptual studies in general are rooted in the philosophy of Gestalt psychology in the traditions of German epistemology. In the prefix to Laurretta Bender's research monograph #3, "On a Visual Motor Gestalt Test on its Clinical Use", which was written by her husband, Paul Schilder, he notes "Gestalt psychology has stretched the dynamic inner factor, the self-regulation in perception. Previous experience cannot explain the existence of segregated units in experience as the grouping of points and lines...It furthermore cannot determine what will be in the foreground or what will be in the background of one's perceptual experience...Children would not learn how to organize a visual field, even after years of trial and error" (1938, P. VII). In the same research monograph #3 Laurretta Bender de-emphasized the role of past experience by noting, "There is a tendency not to perceive Gestalten, but to complete Gestalten and to recognize them in accordance with principles biologically determined by the sensory-motor pattern of action" (P. 5).

Laurretta Bender is particularly guilty of the overuse of linearized symbols and forms in the assessment and measurement of the development of perceptual and cognitive skills, an approach that has resulted in longstanding critique (Billingslea, 1963). The overuse of western-oriented symbols such as a square, a diagonal, or a hexagon in psychological-oriented studies remains a disturbing factor in the face of cultural psychology.

It is essential to note that Bender in particular did not advocate the use of the Bender-Visual Motor Gestalt test as an assessment for personality and emotional functioning. Bender seems to realize that the Gestalt psychological traditions de-emphasize the psychology of emotionality resulting in her questioning using these "static" patterns and designs in the measurement of personality functioning. The use of the Bender visual motor Gestalt test as a measurement of personality and emotional indices continues widely in the western world. Hutt (1977) was one of the well-known early researchers that advocated the use of Bender Gestalt Motor test as the measurement of "personality dimensions" even when he warned that, the measurement is not entirely free of cultural influences (Hutt, 1977).

Laurretta Bender's classical test has an updated version, the Bender-Gestalt II (Brannigan & Decker, 2003) which remains rooted in its Euro-American tradition in terms of visual-motor constructs, figures or designs.

As part of this author's attempt to develop an optimal theory of perception and personality, the use of a postmodern approach with emphasis on the African worldview has been found to affect perceptual and personality functioning among various groups and persons of various cultural histories such as African ancestry (Gergen, 2001).

3. Environmental-Cultural Cues

Issues that are relevant to depth, space, form, and color perception can be greatly affected by what people in cultural environments place value on, are interested in, and are exposed to (Oshodi, 2011). In some cultures, while the understanding of depth perception conforms to the notion of two-dimensionality, it is known that the use of three-dimensionality is common place in the Eurocentric cultures.

Another effect of perceptual functioning is the issue of orientation. In the western world, particularly among Euro-Americans, figures are positioned on the sides and the bases of a page compared to those of black-African heritage who are likely to picture themselves all over a stimulus (e.g., a page of a paper) so the influences could be a direct result of environmental and cultural background (Deregowski, 1972). The effects of one's environmental culture have also been raised in the area of visual illusions. Common cues such as length and distance could have marked differences among persons of various cultural backgrounds. Along these lines, Pollack and Silvar in 1967 pointed out the physiological and ecological elements in the basic process of perception is identical for all humans; only the content varies and these differences reflect different perceptual influence habits (Herskovits, 1955).

4. Need for a Parallel Perceptual and Personality Related Measure

On the basis of the indicated historical, philosophical, and eco-cultural factors noted in the background of this study, there is a need for the creation of a parallel form of instrument that would broadly capture the perceptual and personality histories, dynamics, and experiences of persons of black-African heritage or Afrocentric world view. This is especially essential given that the Bender Gestalt Visual-Motor test, which is now in the second edition, and other similar tests of Euro-American-oriented visual-motor measures continue to be used as universal standards of measuring visual-motor functioning, even in the area of personality, with little or no regard for the African backgrounds, particularly in Sub-Saharan Africa.

In the development of this study the words of an open-minded Anglo-Saxon acculturation psychology become highly essential. Berry (2000, P. 198) offers that one goal in the world of cultural experience is “to transport current hypotheses and conclusions about human behavior to other cultural contexts in order to test their validity,” “to explore new cultural systems to discover psychological phenomena not available in the first culture,” and “to integrate psychological knowledge gained from these two activities and to generate a more pan-human psychology that would be valid for all people.”

Along the same line in this study is the hypothesis that there is a relationship between one’s racial worldview, ethnic history, or cultural background and performance on a visual-motor perceptual measure with mostly line, linear or angulated drawings. In this regard the hypothesis is that blacks will show higher scores, meaning perform poorly, compared to whites on the Bender test, a visual-motor perceptual measure with mostly line, linear, or angulated drawings, which are rooted in Eurocentric perceptual culture and history. Also explored was whether a newly developed visual-motor perceptual measure that is mixed with circular, curvilinear, and linear or angulated drawings would serve as a parallel measure to an existing Euro-American based visual-motor perceptual measure. In this regard the hypothesis is that blacks will show lower scores, meaning perform fairly well, compared to whites on the Oshodi test or OVMOT, a visual-motor perceptual measure that is mixed with circular, curvilinear, and linear or angulated drawings.

5. Methodology

5.1 Participants

Ages ranged from 18 to 52 among the 90 participants. Of the African-American participants the mean age was 26 with an average educational level of 14 years. The Nigerian participants had a mean age of 29 with an average educational level of 15 years and the white Americans had a mean age of 29 with an average educational level of 14 years. Participants represented a range from working class to upper, middle and low social economic class families. Participants varied widely in grade point average, in self-assessment, and intellectual and behavioral characteristics.

5.2 Procedure

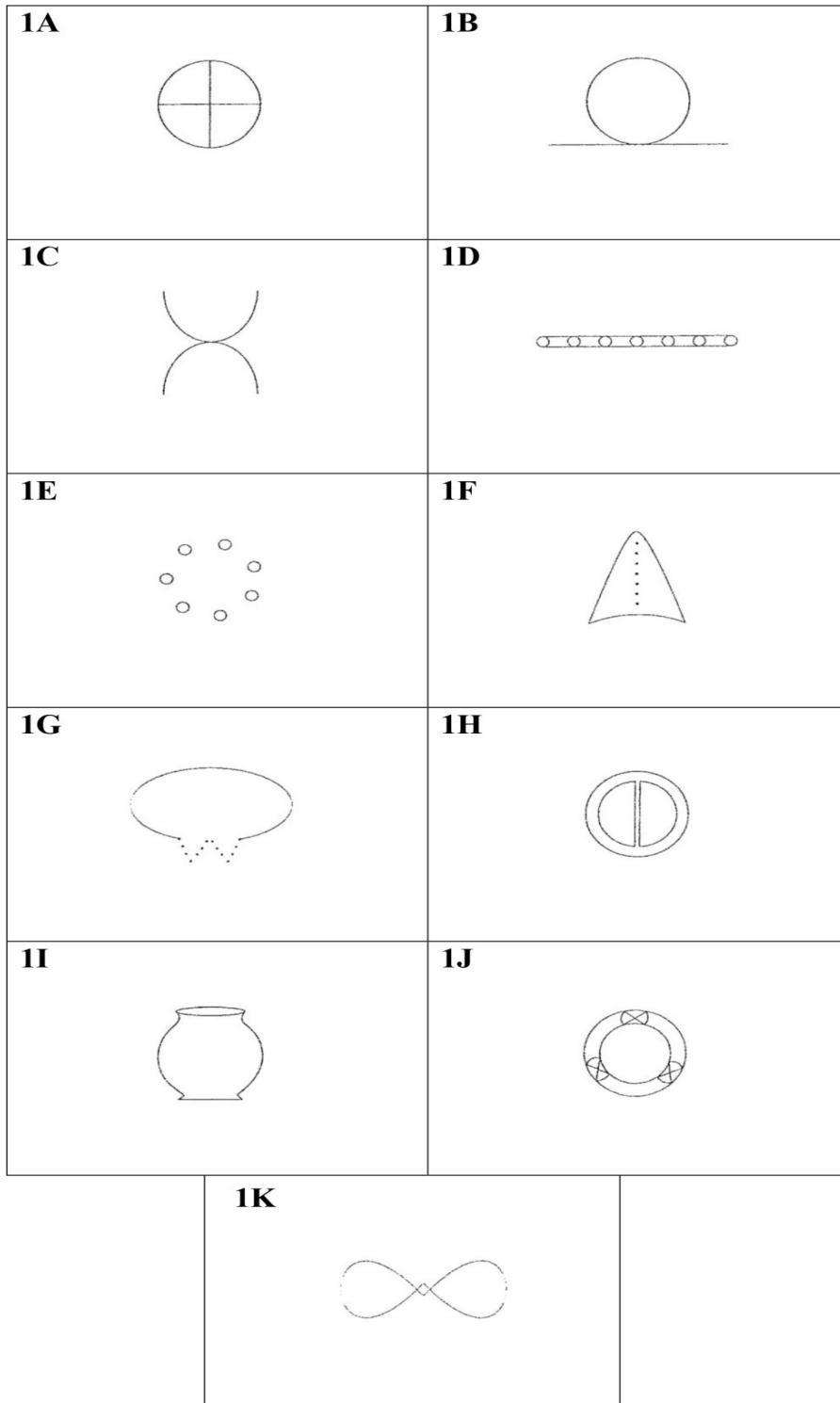
In the year 1997, the researcher approached students while in class in individual and in group forums at various universities in Nigeria and the United States and administered a testing package that included an informed consent form and a demographic questionnaire. The participants were introduced to two visual model and perception tests, the Bender-Gestalt Visual Motor Test, which consists of 9 figures each on its own 3" x 5" card, and the Oshodi Visual Motor Optimal Test, which consists of 11 figures each on its own 3" x 5" card.

The subject was asked to copy the Bender figures on a blank sheet of paper and the Oshodi figures on another blank sheet of paper. The researcher administered the Bender and Oshodi tests in a counterbalanced manner. The examinees were allowed to erase but could not use any mechanical tool such as rulers and were given an average amount of time to complete this test which ranged from 5 to 10 minutes respectively.

For the purpose of description, the Bender test consists of 9 cards. Card A has angular and circular shaped figure, card 1 which has angular and circular shaped figure, card 2 which has a linear and circular figure, card 4 which has a square/angular/curvilinear shaped figure, card 5 which has a linear/angular/curvilinear shaped figure, card 6 which has a curvilinear and angular shaped figure, card 7 which has an angular and linear shaped figure, and card 8 which has a linear and angular shaped figure.

The Oshodi Visual-Motor Optimal Test (OVMOT) consists of 11 cards (see Figure 1). Card 1A has an angular/circular shaped figure, card 1B has an angular/circular shaped figure, card 1C has a curvilinear/circular shaped figure, card 1D has an angular/circular shaped figure, card 1E has a circular shaped figure, card 1F has an angular/linear/curvilinear shaped figure, card 1G has a circular/angular shaped figure, card 1H has a curvilinear/angular/linear shaped figure, card 1I has a curvilinear/angular/linear shaped figure, card 1J has a circular/angular shaped figure, and 1K has a curvilinear/angular shaped figure.

5.3 Figure 1 Eleven Stimulus Figures from the Oshodi Visual-Motor Optimal Test



(OVMOT)

Part of the purpose of this study was to help understand low to high performance in regard to a psychological measure assessing visual motor and to some extent emotionally related challenges. In this paper two studies were developed with the first study involving administering the Bender to the three groups, namely Anglo-Americans (white), black Americans (African-Americans), and black Africans (Nigerians), and in the second test these three respective groups were also administered the Oshodi Visual Motor Optimal test (OVMOT).

In the study the newly developed OVMOT categories reflect a variety of bio-psycho-culturally related orientations which were drawn out to form four categories, namely:

1. Perceptual orientation to Angulation;
2. Perceptual orientation to Curvilinearity;
3. Perceptual orientation to Circularity;
4. Perceptual orientation to Linearity.

For the purpose of developing the Oshodi Quick Quantitative Score System (OQQSS) on the OVMOT, each of the 11 cards with its respective designs were represented in each of the above categories. The following cards fell in the category of orientation to Angulation: 1A, 1B, 1D, 1F, 1G, 1H, 1I, 1J, and 1K. The following cards fell into the category of orientation to Curvilinearity: 1C, 1F, 1H, 1I, and 1K. These designs fell into the category of orientation to Circularity: 1A, 1B, 1C, 1D, 1E, 1G, and 1J. The following designs fell into the category of orientation to Linearity: 1F, 1H, and 1I. It is important to note that the non-angular cards on the OVMOT are 1E and 1C.

Along the lines of using the four categories of perceptual orientations, the 9 designs or cards of the Bender tests were represented as follows: In the area of orientation to angulation the designs on cards A, 1, 3, 4, 5, 6, 7, and 8 were highly evident; cards 4, 5, and 6 were evident in the area of orientation to curvilinearity; cards A, 1, 2, and 3 represented a perceptual orientation to circularity; and cards 2, 5, 7, and 8 represented perceptual orientation to linearity. The only non-angular card on the Bender is #2.

For the purpose of scoring and examining the drawings of the Bender design stimulus cards, the Pauker Quick Scoring System (Pauker, 1976) was used. Each Bender figure was scored on a 0-to-4 basis with a score of 0 indicating a reproduction close to the original figure, a score of 2 indicating a significant deviation from the original figure, and a score of 4 being reserved for a severely distorted reproduction. Pauker's specific criteria for scoring included reproduction close to the original design with respect to a number of components, including spatial orientation, shape, and size. Deviations from the original shape include missing angles, rotations, addition and substitution of tarots. For cutoff points this researcher used a breaking point of 8 and below for normal and 9 and above for impairments. The reliability coefficient of 0.95 showed the Pauker system to be outstanding in regards to visual model related performance.

As for the Oshodi test, this researcher used 11 qualitative signs for assessing and examining reproductions. Also essential to the Oshodi test or OVMOT is the evaluation of emotional and personality characteristics, including carelessness, impulsivity, confusion, and other behavioral difficulties. This researcher used 11 qualitative signs:

1. Imbalance – difficulty in drawing the figure in its actual presentation.
2. Collision – two or more separate figures overlap or are drawn within one-fourth inch of one another.
3. Retrogression – substitution of a mild primitive form for the actual stimulus.
4. Omission – inability to fully draw a figure in its complete form.
5. Motor Incoordination – evidence of trembling when drawing.
6. Angulation Trouble – severe difficulty in fully producing the angulation of figures.
7. Reversal or Rotation – the figure is rotated 80° to 180°.
8. Expansiveness – the figure is highly expansive compared to its original size.
9. Perseveration – the figure is drawn beyond the needed limit in terms of time.
10. Fragmentation – the figure is broken into different parts and shows evidence of incompleteness.
11. Shadiness – the figure is marked with repetitious shading and erasers.

Each figure is rated or scored on a 0 to 6 scale of deviation from the original stimulus where 0 is optimal (normal), 3 is subnormal, and 6 is critical. If there is doubt as to whether the figure is a 0 or a 3 (or a 3 or a 6) a design was given in between points of 1 or 3 or 5. For qualitative analysis this researcher used a breaking point of 7 and below for normal and 8 and above for qualitative impairment.

6. Results

6.1 Inter-Rater Reliability on the OVMOT

For the purpose of reliability study on the Oshodi Test two judges with backgrounds in Clinical Psychology and experience in assessing visual-motor, social, and personality related difficulties and who have familiarity of Euro-American and African worldviews were used. The judges were blind to the participants' demographic characteristics and scored the figures on the basis of the preceding scoring criteria. The judges were instructed to concern themselves with the examinees style, orientation, and approach to the designs on the stimulus cards.

An entire study was conducted on the OVMOT and both judges scored all 11 design cards. The clinical judgments on the OVMOT proved to be highly consistent with bio-cultural and psycho-environmental theories on perception, personality, and motivation. Both judges reached a reliability coefficient of alpha of 73% and 70% respectively.

6.2 Validity on the OVMOT

A semantic analysis was carried out to identify the perceptual constructs underlying the Oshodi test. The OVMOT cards represented cultural experiences, geo-environmental situations, and bio-psycho-cultural leanings to perception, as well as to conceptual motives and tendencies. The identified designs represent hypothetical and authentic cultural characteristics, life awareness, and behaviors which were used to capture the underlying motives and tendencies in the construct. The inferences and clinical judgment of the Oshodi test raters proved to be highly consistent with African, multicultural, and postmodern related theories on perception, emotionality, and personality.

6.3 Descriptive Analysis

For the purpose of descriptive analysis, blacks of African backgrounds and blacks of American background were classed as one race given their underlying African based historical and psychological as well as environmental history. The white participants were classed as one race given their Euro-American history and background. The separation of all the participants into two races is justified on the generally known cultural dynamics and emotional prints, as well as dynamic elements in human history as they relate to each race's worldview which is ingrained in their respective cosmology (the nature/structure of the universe), ontology (the nature of reality/being), axiology (the reality of values), and epistemology (the nature of knowledge).

The attempt here is to answer the questions of how one's racial worldview, ethnic history, or cultural background, as in persons of Euro-America descent and persons of African ancestry, affects performance on a visual-motor perceptual measure with mostly line, linear, or angulated drawings like the Bender and on a visual-motor perceptual measure that is mixed with circular, curvilinear, and linear, or angulated drawings such as the OVMOT or the Oshodi test.

To answer these questions a non-parametric test, the Mann-Whitney Test was utilized in the study. The Mann-Whitney test showed a mean rank score of 57.41 on the Bender Test for blacks and a mean rank score of 21.68 for whites. It also showed a mean rank score of 42.22 for blacks on the OVMOT Test and 52.07 for whites on the OVMOT. As higher scores on both instruments indicate visual motor difficulties on the basis of this descriptive analysis it appears that blacks performed less well on the Bender test compared to the Oshodi Test. It also appears that whites performed generally less well on the OVMOT or Oshodi test.

In comparing blacks to whites with the Bender test, the normal approximation to the Mann-Whitney test produced a test statistic of $Z=-6.134$ with $p=.000$ which is less than .05, indicating that blacks did significantly worse on the Bender test.

In comparing blacks to whites with the OVMOT or Oshodi test the normal approximation to the Mann-Whitney test produced a test statistics of $Z=-1.691$ with $p=.091$, which is greater than .05, indicating that blacks did fairly well on the OVMOT or Oshodi test. This study is based on a convenience sampling given that the sample used resulted from population members that are readily available.

7. OVMOT as a Personality/Emotional Screening Test

The OVMOT could also serve as a projective test (Anastasi & Urbina, 1997) as various non-verbal-motor related approaches to the stimulus cards could help in understanding how individuals proceed in their world and behave in it. It is essential to note that any interpretative hypothesis of images and contents of these designs as it relates to their respective symbolic, emotional, dynamic, conscious, or unconscious meanings should be carried out by scholars and practitioners that are well versed in African centered psychology and the philosophy of multiculturalism, not excluding Anglo-Saxon psychological and philosophical orientations.

On the basis of interpretive hypothesis of the emotional and personality contents in the Oshodi Test, the participants were instructed to describe each design on the card and reveal what comes to their mind as they look at the picture on Oshodi stimulus cards. The descriptions of the pictures were matched with longstanding elements of motives and attitudes of people of African and Euro-American descents. The various descriptive responses giving by the white and black participants were on a qualitative basis matched with generally known cultural dynamics and emotional prints as well as dynamic elements in human history as they relate to each race's cosmology or the nature/structure of the universe, ontology or the nature of reality/being, axiology or the reality of values, epistemology or the nature of knowledge, and ideology or nature of thought (Kabon, 1992, 2005).

On the basis of interpretive hypotheses, descriptive factors, and qualitative considerations, the responses from the white and black participants were noted. Responses from whites generally reflect rigid, mechanical, and fractional responses across all designs. Responses from persons of black/African background generally reflect elasticity, vitality, and openness across all designs.

As part of the projective aspects of the OVMOT in regards to emotional, behavior, and personality patterns on an intuitive and subjective basis, the subjects (across the three sub-cultural groups) subjectively described each of the designs. The revealed outcomes showed the effects of differences in culture and environment as they relates to one's social and personality characteristics, as well as emotional styles and experiences.

Taking an intuitive or subjective approach, at the end of reproducing the OVMOT designs the subjects were told to write a description of each design with the following straight instruction "describe this picture and what comes to your mind as you look at this picture and what does the design mean to you."

On Card 1A the descriptions and responses from whites revolved around wordings and descriptors that include belt, buckle, sign, chart, game, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of aggressive and abstract tendencies. On Card 1A the descriptions and responses from blacks revolved around wordings and descriptors like round rope, plate, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of connectedness and openness related tendencies.

On Card 1B the descriptions and responses from whites revolved around wordings and descriptors like round rope, round plate, rolling ball, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of action and constant state of movement. On Card 1B the descriptions and responses from blacks revolved around wordings and descriptors including a cycling ball, balanced cycle, spiritual cycle, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of non-intense movement and togetherness oriented behaviors.

On Card 1C the descriptions and responses from whites revolved around wordings and descriptors that include overlapping objects, mingling strings, eggs, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of aggressive and sexual tendencies. On Card 1C the descriptions and responses from blacks revolved around wordings and descriptors like interconnected cycles, roundish objects, connected, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of collective interdependence, collective energy, upward energy, and other related tendencies.

On Card 1D the descriptions and responses from whites revolved around wordings and descriptors like an instrument, weapon, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of antagonistic tendencies. On Card 1D the descriptions and responses from blacks revolved around wordings and descriptors such as special drum, vegetable, round safe, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of positive energy, consecutiveness, synthesis, and related tendencies.

On Card 1E the descriptions and responses from whites revolved around wordings and descriptors like tossed up ball, a telephone, distant balls, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of distance, isolation, diffusion, and other related tendencies. On Card 1E the descriptions and responses from blacks revolved around wordings and descriptors like spirits, rings, balls, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of non-inhibition, striving energy, and other related tendencies.

On Card 1F the descriptions and responses from whites revolved around wordings and descriptors like an iron, a defense sign, a weapon, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of action and reactive tendencies. On Card 1F the descriptions and responses from blacks revolved around wordings and descriptors such as a protector, shield, buffer, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of protectiveness, positive resistance, and other related tendencies.

On Card 1G the descriptions and responses from whites revolved around wordings and descriptors like a comic object, an airship, a blimp, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of power, distance, forwardness, and related tendencies. On Card 1G the descriptions and responses from blacks revolved around wordings and descriptors like an axe, necklace, band, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of readiness, beauty, war, and other related tendencies.

On Card 1H the descriptions and responses from whites revolved around wordings and descriptors like an incomplete peace sign, metal head, buckle, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of divisiveness, strength, power, and other related tendencies. On Card 1H the descriptions and responses from blacks revolved around wordings and descriptors that include hearts, conception, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of vitality, life, and other related tendencies.

On Card 1I the descriptions and responses from whites revolved around wordings and descriptors like a vase, container, bowl, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of closeness, freshness, and other related tendencies. On Card 1I the descriptions and responses from blacks revolved around wordings and descriptors that include pot, sink, flask, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of lovingness, newness, and other related tendencies.

On Card 1J the descriptions and responses from whites revolved around wordings and descriptors like preserver, protector, armament, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of power, control, and other related tendencies. On Card 1J the descriptions and responses from blacks revolved around wordings and descriptors that include shield, royal sign, a game, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of magnificent, wonderfulness, and other related tendencies.

On Card 1K the descriptions and responses from whites revolved around wordings and descriptors like bird eyes, owl eyes, females, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of deviousness, suspiciousness, and other related tendencies. On Card 1K the descriptions and responses from blacks revolved around wordings and descriptors include flowers, plants, signs, etc. These descriptions possibly suggest feelings and thoughts of overvaluation of synthesis, creation, realization, and other related tendencies.

In line with qualitative analysis of projective drawings in terms of shape, size, position, and space, the OVMOT could aid in an attempt to discover the motivations, attitudes, and conflicts of the respondent as the "projects" of their unconscious/preconscious attitudes and motivations into the picture. The OVMOT could aid in revealing conscious and unconscious motivations and attitudes that are beyond or hidden from conscious awareness with particular emphasis being placed on factors that influence the perceptual processes such as in needs, wants, values, and tensions, as well as in the uncovering of various mood and thought patterns. The already indicated eleven scoring components serve as perceptual/emotional indicators. On the basis of projective hypothesis, an excessive or obvious show of Imbalance, difficulty in drawing the figure in its actual presentation, could be revealing of the individual's state of confusion and maladjustment. An obvious or excessive show of Collision, two or more separate figures overlapping, points to a possible struggle with inner tension and conflicts. An excessive or obvious show of Retrogression, substitution of a mild primitive form rather than the actual stimulus, possibly points to immaturity, inadequacy, or a concrete attitude of life. An excessive or obvious show of Omission, an inability to fully draw a figure in its complete form, possibly reveals the individual's state of emotional emptiness, a negative view of one's self, or a need for completion. An excessive or obvious show of Motor Incoordination, evidence of trembling when drawing, possibly points to anxiety or organic difficulties. An excessive or obvious show of Angulation trouble, severe difficulty in fully producing the angulation of figures, possibly points to irritability, concrete behavior, or cultural incongruity. An excessive

or obvious show of Reversal or Rotation, the figure is rotated 80° to 180° possibly points to confusion, anxiety, or impudicity. An excessive or obvious show of Expansiveness, the figure is highly expensive from its original size, possibly shows signs of irritability, acting out behaviors, or aggression. An excessive or obvious show of Perseveration, the figure is drawn beyond the needed limit in terms of time, points to signs of poor psychomotor speed, organic-related issues, or poor time management skills. An excessive or obvious show of Fragmentation, the figure is broken into different parts, possibly shows evidence of impulsivity, anxiety, or confusion. An excessive or obvious show of Shadiness, the figure is marked with repetitious shading and erasers, possibly points to anxiety, irritability, or apprehension.

It is essential to note that any interpretative hypothesis of image on contents of these designs in terms of their respective symbolic, emotional, dynamic, conscious, or unconscious meanings should be carried on by scholars and practitioners that are well versed in African centered psychology or the philosophy of multi-culturalism as well as in projective psychology

8. Implications and discussions

The purpose of this study was to explore tests of conceptual-motor-visual process with implications for personality and emotional understanding in today's postmodern world. In an attempt to uncover the conceptual and psychological process underlying the visual motor, cognitive, personality, and adaptive tendencies the OVMOT was created to allow the examinee to express and reveal his or her overall conceptual characteristics and perspective to one's day-to-day environment.

This is an exploratory work that is being developed parallel to the Bender, a Eurocentric-loaded measure both in its original form and its current editions. This newly developed exploratory instrument, which will find itself in research and the clinical environment, tries to argue that visual-motor and conceptual differences in the two instruments in terms of test outcome is really a function of the specific test being used rather than the individual. As such it could be beneficial for clinicians in this field to investigate instruments that are most suited to one's cultural and conceptual style. It is argued in this study that conceptual or cognitive difference is not merely attributable to the individual but generally to one's cultural backgrounds and is clearly evident in this study. Like the Bender Visual-Motor Gestalt Test the OVMOT which is designed to measure visual-motor integration skills as well as screen for emotional difficulties appears generally appropriate for children and adults from 4 to 85 + years of age.

While there is some degree of individual difference in terms of some groups doing better on a particular style of design than other groups, it appears that an understanding of one's conceptual, cognitive, and personality backgrounds could be more attributable to cultural group patterns and as such we need to mix instruments of perception and personality in all areas.

On a simplistic note, where most of the available designs are disproportionally marked with more lines than circles it creates a problem of cultural fairness in tests. This explorative test, the OVMOT, is just a test that would enhance and add to other tests in our current multicultural populations as it balances with lines and circles more than the Bender test.

It is essential to note that the sample size in this study is obviously limited, restricting generalization of the study findings. In the face of these limitations the OVMOT has promising psychometric and objective values in that for the first time the exploration and investigation of conceptual visual motor tendencies in people of Africa descent stands out in the new measurement in regard to measures in the field of visual-motor and personality related measures. In the future the issues raised in this study could be further looked at by researchers and clinicians to see if conceptual and clinical indexes revealed in the OVMOT have the potential to further understand the place of history and culture as well as environment to an individual's perceptual, personality, and emotional style.

Modern scholars and practitioners in behavioral sciences, those of Euro-American culture especially, must accept the present day reality that worldview differences in a peoples' reality, being, values, knowledge, and understanding of the universe, as well as their nature of thought, have roles to play within the clinical processes of perception and personality. Therefore, it essential that consideration be given to history and culture, as we develop or utilize measuring tools, and methodologies in psychology that are relevant to perceptual and personality development and functioning.

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