INAUGURAL LECTURE SERIES 254

# HUMAN BEHAVIOUR ANALYSIS:
# THE SCIENTIFIC ALTERNATIVE

By

## O.S. Elegbeleye
*Professor of Psychology*

# HUMAN BEHAVIOUR ANALYSIS: THE SCIENTIFIC ALTERNATIVE

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## Tribute

I will like to start by paying tribute to those fantastic mentors whom God, in his infinite mercies, have raised to shape my world view and thus provide me with the opportunity to have a foothold in the academic establishment, a manifestation of what has crystallized into the opportunity I have to engage you this afternoon. Late Professor C.G.M. Bakare, (may God rest his soul), Professor J. O. Akinboye (retired), Professor N. O. Okoye (retired), Late Professor Gesinde, Professor H. O. Nwagwu (retired), and Professor C. B. U. Uwakwe, all of the then University of Ibadan, and my senior and junior colleagues both in the Department of Psychology and within the Faculty of Social Sciences, Obafemi Awolowo University, prominent among whom are; Professor Olowu who recruited me into the Department, Professor Bickersteth, Professor Ajila, Dr Idehen, and my most cherished junior colleagues, Dr Adegoke, Dr Ayinde, Mr Ilevbare,

Mr Ojewumi, Mr Akanni, Mrs. Ekundayo, Mr Olasupo, Miss Omole and Miss Ayeni and other resourceful and valuable colleagues within and outside the Faculty of Social Sciences whose world view and strength of character have shaped mine ever so positively.
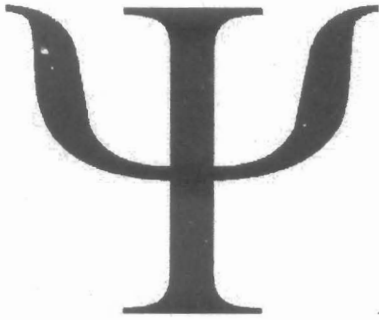


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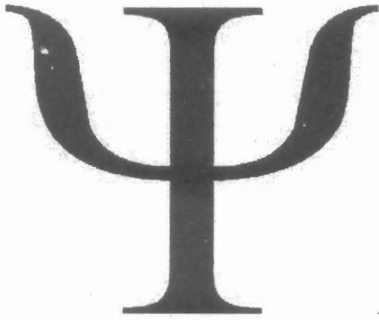


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## The Lecture

## Introduction

The primary business of Psychology as a formal course of study is to describe, predict and prescribe norm-compliant human behaviour. It describes human behaviour in measurable terms of 'deficit', 'normal', or 'excess' thus appropriating human behaviour in scientific terminology that captures points of reference more succinctly than the more conventional commonplace description of behaviour as 'normal' or 'abnormal', 'bad' or 'good', 'appropriate' or 'inappropriate' as the fancy do often catch pedestrian describers. Predicting human behaviour scientifically is equally as procedural as describing it, for example, behaviour is predicted with research intentions in mind, as such, specific variables with their functional essence are arranged accordingly in a conditional framework that allows for rejecting or accepting what is predicted. Prescribing a norm compliant behaviour, more often than not, captures the outcome of a painstaking clinical procedure that provide laboratory opportunity for the behaviour expert (the counsellor, psychotherapist or behaviour clinician) to help client choose the most appropriate of the several probable behaviour for adoption when the need arises for behaviour modification.

Common sense logic permits us as individuals in our various social space to generate behaviour labels that categorize attitudinal dispositions, behaviours, and personalities into as varied classes as covers such name calling as, 'the man/woman'/'boy/girl' as the case may be, is 'wicked', arrogant', 'good', 'bad', 'approachable', 'unapproachable', 'friendly', 'unfriendly', 'malicious', 'gossip' etc. without any solid basis in an empirical procedure of any sort, but only by merely basing our claims on one or two circumstantial evidences witnessed, most often, from afar. These descriptions rather reflect our moods at the specific moments of assessment than represent a near accurate description of the target object of description.

It may be conjectured that if this has been the order of crafting behaviour labels since the dawn of time, why query it? Or why should it attract academic discourse? But then, it will be noted that what the

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world has become today is largely a product of the dynamic evolutionary trend that constantly hallmarks the all encompassing, effective and pliable entity that man has become. The man who at creation was denied any visible arsenal of protection from the harsh realities of the environment, no sharp teeth, strong jaw, or formidable paws like that of the lion, hyena or the tiger to ward off attacks from predators or deployed to harass or capture preys, has, today, morphed into a machine that flies better than the eagle, swims better than the dolphin, and is capable of outrunning the fastest animal known to the wild, the cheetah, all because of one instrument given to him that in efficacy and adaptability surpasses what all other creatures have at their disposal to share; intelligence. With persistent intensive application of his cognitive apparatuses to solving sundry problems as they arise, man has succeeded in overcoming his environment and the fury of its monumental temperament.
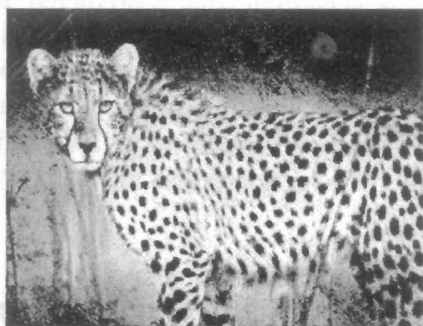
Man's remarkable achievements became realizable as a result of the unique methodologies he, early in his evolutionary journey, availed himself of, namely the systematic observation of occurrences in his environment. Painstaking documentation of what was observed gave a further fillip to his upward evolutionary spring. Also, being naturally inquisitive made him want to take things outside of their natural abode and fit them with strange bedfellows, thus watching out for equally strange outcomes. This pastime is generally described in academe as experimentation, a process that aspires to link cause with effect, and used inexorably as a searchlight in Psychology. Hence man was not satisfied with the speed nature endowed his legs, he needed an automobile to move faster, an aircraft to move a lot faster, a marine technology to master the underwater environment, his eyes are not naturally equipped to see so far, he invented the telescope, God at creation hid the microorganisms from him but he invented powerful microscopes, and has acquired a large repertoire of so many other such feats, all owing to accuracy of observational power that is subsumed in experimentation.

Global transformation from the use of crude implements of agricultural value of old to full blown technological explosion of today witnessed an early manifestation in cultural milieus where systematic observation of the happenings in their immediate and remote environments have been ingrained as a way of life. This being the reason why we talk more of Western civilization, Eastern civilization and little of African civilization except when reference is made to ancient Egyptian civilization, which would make but very little positive difference in today's order of things. If the way people observe their environment bears positive correlation with their development and wellbeing-ness, then, this may well explain why the African person's overarching romance with the externality, or what we call in psychology, over indulgence in external locus of control may explain their limitations as a people. It was said jocularly but not scientifically proven that if the African person encounters an obstacle of whatever hue which appears intractable and beyond his ken to decipher, he either avoids it completely or transfers solution to the domain of the gods, but would not for any reason attempt exhaustive investigation.

Other people with more inquisitive disposition, who pay premium attention to their environment in order to overcome it, would explore, observe, study, break or burrow through in their search for ample understanding of the nature and form of the obstacle. This is however debatable, and to avoid controversy, I move to firmer grounds.

## The Environment
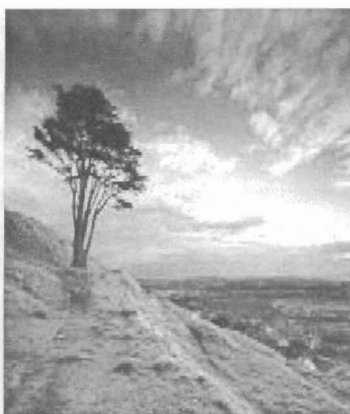


*Physical Environment*

For ease of clarification, the environment is usually stratified into the 'internal' and the 'external'. Internal, symbolising the crucial intangibles that underlie behaviour, symbolic among which are the psychological and the contingency environments. The external environment describes the more identifiable and visible quantities, the

most important two of which are, the human and the physical environments. These four environmental icons shall provide the basis for explaining the scientific paradigm usually adopted when the need arises to capture and present the depth and the dimension of what influences human behaviour to flow in the direction it often does.

**External Environment**

As it was earlier alluded to above, these are the environments that are quantifiably visible to the human eye; hence they could be measured ordinally, laterally or horizontally. They include the *human* and *physical* environments

**The human environment** distinguishes itself by the sheer fact that it exists both as a function of a divine arrangement as much as a product of human's social disposition, which manifests in the myriad tangle of interconnectivity to which the individual person is bound. There is the reproduction mandate that introduces the child into the world as a result of the union between the man and the woman. As soon as conception takes place, a bond exists importantly between the child and the mother and to a lesser extent between the father and the child. This bond metamorphoses as the child grows, into what is often referred to in psychology as 'attachment'. Attachment is an emotional bond, usually between child and parent, characterized by the child's tendency to seek and maintain proximity to the parent, especially under stressful conditions. John Bowlby, a British psychoanalyst, developed attachment theory in the 1950s and 1960s as a way of explaining certain elements of personality and of psychopathology that were not already accounted for by other psychoanalytic theorists. Specifically, the genesis of the theory comes from Bowlby's work with juvenile delinquents in pre-World War II England. He was impressed by how often the young criminals' early experiences included severe disruptions in their relationships with their mothers and so on. As a child continues to grow however, his field of attachment becomes expanded to include siblings from the same parents, peers in the immediate environment, school peers, religion's peers, social peers and relatives. The circle of these individuals form

for the child a network of what is often referred to in psychology as the 'significant' other'.
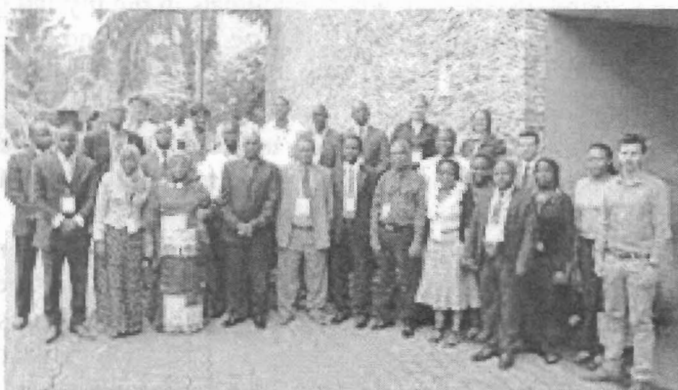


*Human environment*

The circle of the significant others continue to expand as the child grows into adolescence, youth, young adult, middle age and old age. Along the line, this circumference expands further to accommodate school teachers, special school friends, social dates, work place friends, wife, parents' - in – laws, biological offspring, etc. All of the above constitute the dragnet of an individual's *human* environment. It is imperative for scientific assessment, therefore, to ascertain the level of the psychological influence the *human* environment can and often do wield on the person so as to be able to establish a linkage between

the cause and the effect of behavioural dispositions in order to ensure the following; facilitate both prescriptive and proactive counselling, where there is a need to tackle, for example, the menace of disruptive behaviours, design capacity-focused career path, identify measures of occupational fit, engage a proper in-depth analysis of case profiles in clinical settings, and ascertain the individual's areas of behavioural strength and weakness so as to improve one and discourage the other if need be, etc. In assessing human behaviour using the *human* environment as the independent variable, attention is usually paid to number, availability and accessibility as primary guide for study designs.

**The physical environment** packs in it potential variables that are capable of influencing human behaviour. It refers to the sum total of quantifiable material mass available to conduce for the individual a norm compliant behavioural disposition. This is usually treated in psychology under the broad outline of 'socio-economic status' where material wellbeing-ness is an issue to contend with. For example, in most African settings, it is not unusual for people to use material accumulation as a parameter for measuring affluence. Being a 'man' in the local power equation parlance is when a number of houses, cars, landed property, etc. can be named after the individual. It is also a well known fact that space control or territoriality also determines status. This is illustrated by the fact that a man without any means of transportation transverses far little space than the individual who owns a bike, just as the individual who owns a motor bike, another, a car, yet another, a jet etc. respectively would access more space in succession than the individual on the lower rung of the transportation enhancing ladder.

This may not be unconnected with the reason why the popular acronym for the poor remains the 'have not'. Not having enough is a potential stressor likely to induce a regular and sustained acute stress level just as the unbridled desire to attain material wellbeing-ness could warrant challenging stress related illnesses. Similarly with the issue of territoriality which is a clear demonstration of the desire to command space. Territoriality is a term associated with nonverbal communication that refers to how people use space to communicate

ownership/occupancy of areas and possessions (Beebe. Beebe & Redmond 2008, p. 209). An example of demonstrating territoriality might be the size.



*Physical Environment*

Driving a large SUV like the now commonly sighted Sienna Space buses of varying shapes might unconsciously reflect the intention of their owners to communicate to other road users that because they have the economic capacity to afford a larger car, they have a right to more road space than people who use, say, Gulf, Volks Wagon etc. Another example is the way students sit in class. Some students like to spread their backpack and books out in a way to let other students know that they don't want others to sit next to them.



*Physical Environment*

These students obviously value having a lot of space that they don't have to share. On the other hand, some students keep their books and bags close to them, making others aware that they don't have a problem sharing the space around them with other students.

Territoriality can also be associated with states or nations. Government and social ideas are also associated with *territoriality*. A nation state can establish common ideals amongst its citizens which lead to territoriality. Nationalism is an example of this. National pride, common religious practices, and politics all play a role in a state's territoriality. Technological advancement has, to a large extent, honed up the acquisitive imperative of gadgets that on the one hand, appear to make finding solution to sundry social, communication and educational problems easier, but on the other, do add to the pressure to acquire more. For example, most members of this audience would prefer to part with a finger than to be without their handsets. My recent experience enlightened me to the fact that sponsoring a child to read law or medicine requires that such wards are equipped with functional laptops. Also, there is an obvious status differential between a home setting where television network viewing is made possible by a fourteen inch colour television and a flat screen appliance. Arising from the above, therefore, it becomes easier to imagine that there evidently would exist a confidence and esteem differential between an individual from the 'have not' background and the one from the 'have' background. In assessing the underlying motivation for human behaviour therefore, issues of the *physical* environment becomes a factor that must be controlled for, if the effort of describing, predicting and prescribing behaviour is to be scientifically accomplished.
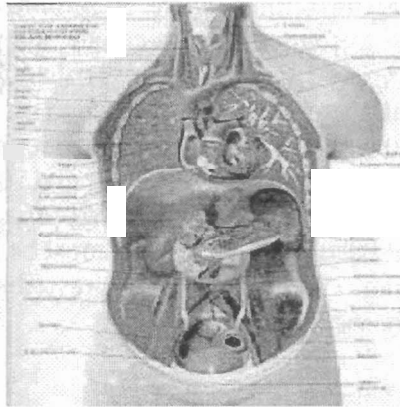
# Internal environment
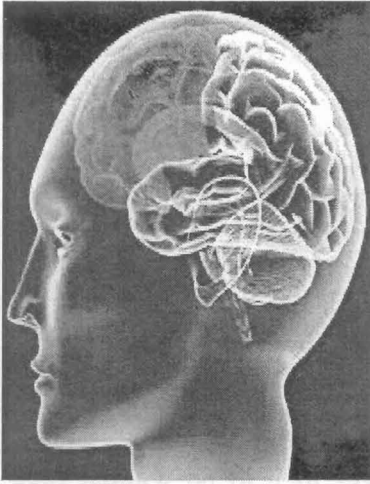


*Human anatomy*
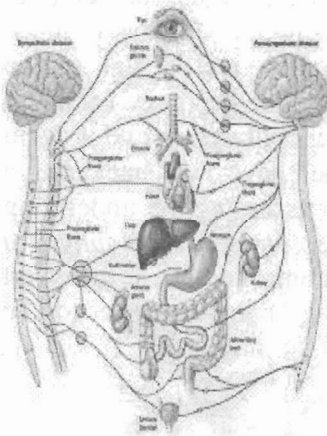


*Human brain*

*Nervous system*

These are the intangible environments that consistently act as behaviour prompts, and in spite of their intangibility they are implicated as the reason why we do most of what we do. Two are isolated for mention here; these are the *psychological* and the *contingency* environments.

**The psychological environment** provides for us the impetus to categorically rate ourselves as being a member of the out-group or the in-group, belonging or not belonging, capable or incapable, efficient or inefficient etc. It is this rating, most often, subjectively arrived at, that encourages us to do or discourages us from doing. The following constructs command quite a space in the academic and pedestrian phraseology; 'superiority complex', 'inferiority complex', 'arrogance', 'pompousity', 'unassertiveness', 'unobtrusive', 'clumsy', 'engaging' etc. all of these and many more are words deployed to capture the psychological state of the person being described. The psychological environment is a creation of several interlocking factors. These factors have been captured by several theories of psychology, particularly in the cognitive psychology field. Three of these will be highlighted here.

Leon Festinger (1919–1990) through his theory of cognitive dissonance proved that individuals strive for internal consistency, with thoughts, beliefs, and feelings matching one's actions. In everyone's life, however, there will inevitably be occasions when actions are not consistent with beliefs. According to Festinger, on such occasions as these, an individual experiences cognitive dissonance, or discomfort, caused by the inconsistency between beliefs and actions. The greater the personal responsibility felt for a troubling action, the greater the dissonance felt. This tension can only be relieved by making changes to bring the actions and beliefs into line with each other. This discomfort will often lead to a change in beliefs rather than changing actions, explaining it away: "Since I did that, I must believe that it's acceptable." Other local (Nigerian) example is illustrative of how people of conscience and virtue develop a set of belief systems to accommodate corruption immediately they are appointed or elected to serve in a political position. Cognitive dissonance has been confirmed in many experiments that follow a common pattern: make people feel responsible for behaviour that violates their attitudes or beliefs and for which no clear justification is at hand, and then measure their attitudes again. It is often discovered that actions are likely to be explained away, e.g. we do often hear from Nigerian elites who

operate at the civil service level such phrase as 'if you want to stay in. then, join them'

*Festinger*

Cognitive restructuring as reflected in cognitive behaviour therapy, though a therapy, (curative method) can be used to illustrate the psychological environment. because its working paradigm derives from the assumption that a distorted psychological environment will result in distorted behavioural outcomes, the cure for which can only be found by roaming the psychological environment of the affected individual to locate the dysfunctional thought patterns or perceptions so as to rectify them. Although behavior therapists tend to focus attention on external stimuli and consequences as causes of maladaptive behavior, they also recognize that many disorders, including depression and anxiety, can be rooted in how clients perceive themselves and the world around them. As cognition (thinking) is a form of behavior, it should be possible to alter problematic thoughts just as it is possible to change other kinds of behaviour by manipulating stimuli and consequences. Cognitive-behavior therapy (CBT) focuses on using learning principles to change the way clients think and, consequently. how they behave as a result of that thinking. Aaron Beck, a hugely influential cognitive therapist, has had great success in the treatment of depression via cognitive restructuring. His approach assumes that mental disorders originate in false beliefs and errors of logic. called cognitive distortions. Over time, these false beliefs (such things as "I can't do anything right," "I 'm a total loser," "If I say anything. they'll all

think I 'm an idiot") begin to occur automatically, so that the client never stops to consider whether they are even true (Beck, 1995).



*Aaron Beck*

Another illustrative work which highlights the psychological environment is Albert Ellis's rational-emotive behavior therapy (REBT). In Ellis's view, mental distress is produced not so much by upsetting events as it is caused by rigid and maladaptive ways in which we interpret those events. The person with depression, for example, may interpret a suggestion as criticism, friendliness as pity, or enter all situations with the belief that "I must be perfect at everything I do." Like Beck's approach, REBT consists of helping the client zero in on these irrational beliefs and then challenging them. Unlike Beck's relatively gentle approach, however, REBT involves a rather blunt, confrontational approach. Like Beck's therapy, this approach involves homework. A very shy damsel, for example, may be encouraged to sing loudly when alone but knows she could be heard or flirt with men she finds attractive, so that she may come to realize that her life does not fall apart as a result. Success in challenging false beliefs ultimately eliminates them, perhaps eliminating the resultant psychological disorder as well (Ellis, 1993).



*Albert Ellis*

The *psychological* environment exists as a direct function of the interaction between what in psychology is referred to as the nature/nurture continuum. A component of our psychological state is produced by the genetic gifts we inherited from our parents, while a larger portion is owed to both the conscious and unconscious learning processes we had the privilege of undergoing while growing. The *psychological* environment, therefore, is responsible for the building block of a person's esteem profile, confidence level, and the 'can do' spirit, all of which determine the measure of a person's personality rating. The dimension, depth and latitude of the *psychological* environment differ, no doubt, from individual to individual, largely as a result of the different backgrounds that constitute the personality profile of the individual. For example, Hussein Bolt, today's world fastest sprinter, according to his performance in the last London Olympic, may have ended up a secondary school sport's master if given a Nigerian background. Also, that the Nigerian team taken to the London Olympic in August last year came back without a medal to show for the enterprise into which more than two billion Naira was sunk, and more than 36 diaspora Nigerians won medal for their foster countries, tell a tale in support of the havoc that a debilitating *psychological* environment can do to a willing spirit.

Arising from the above therefore, psychology, as a formal academic programme deployed to the enterprise of describing, predicting and prescribing behaviours of best fit, take special cognizance of a person's psychological environment when in operation as a tool for psychotherapy, counselling, clinical diagnoses or job design.

**The contingency environment** describes those psychological factors that predispose a person to taking decisions when confronted with a situational event he least prepares for. Assessment in this category involves questions such as, does the situation require a decision to be taken, what kind of decision needs be taken, how many decision options are available, who takes the decision, and what end would the decision taken achieve etc. All of these considerations are expected to come in a flash, within a fraction of a second, and the right decision capable of solving situation-specific occurrences is expected as an outcome, that would determine fault lines between the stable and the

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unstable personality types. Not too long ago in our national history, we heard of an army colonel whose reaction to an irritating traffic obstruction caused by an 'okada' rider, was to pull out a pistol and shot to death the assumed offender. This behaviour will definitely not typify every army colonel confronted by similar situations. What does a man do when he catches his wife red handed committing adultery on their matrimonial bed, or a woman catches her husband sexually despoiling their only daughter in their bedroom, or a man losing his job on the eve of his daughter's wedding etc. To deal effectively with these scenarios and suchlike, a person will need to depend on his residual psychological apparatuses to come up with decisions that will speak positively for his personality profile at the instance of encountering sudden but devastating unexpected eventualities. It is the residual psychological apparatuses that is here, referred to as the *contingency* environment.



*Automobile accident*

*Plane crash*
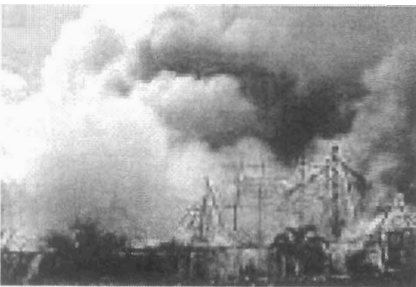


*Fire incident*

The human personality structure is usually described as compartmentalized into the cognitive, affective, and psychomotoric domains. Three domains popular in psychology for explaining the intricate but fluid interconnectivity between the functions of the brain, the heart and the limbs, these being the major organs responsible for initiating, leveraging and dispensing behaviour that is often reflective of a person's personality profile. At the centre of the cognitive domain is the brain which functions principally in the direction of interpreting the stimuli received from the general environment for what they are in terms of shape, structure, value classification, and the action required to deal with them. For the brain to perform this task optimally, the five sensory organs must function flawlessly by sending the right signals to it. When a level of harmony exists between the functioning of the sensory organs and the brain, objects seen, sensations felt, odours perceived, sounds heard and the taste regimes will aid the brain to come up with the best interpretation that would inform the right action. Whether whatever action taken is assessed as norm-compliant or not, depends on the quality of brain that is at the centre of the cognitive factory.

To measure the quality of a person's brain, psychologists and a host of experts in the helping professions (medical, nursing, pharmacy, therapists etc.) have always asked the question; what is intelligence? The answer to this question seems to depend very much on who is asked. The subject has engaged thinkers for at least as long as people have been writing down their thoughts, and possibly for much longer. Intelligence-related terms are used all the time. If someone mentions a friend who is very smart, for example, the listener will surely have some general idea of what is meant. The concept of stupidity is equally intuitive. Coming to a real agreement on all the different things that it entails, however, may prove much harder. Does being intelligent mean knowing a lot of facts? Does it mean being able to solve mathematics problems quickly? Is fast reaction time important? Does a high score on an IQ ensure survival for a week in the jungle with just an arrow? Most introductory psychology textbooks attempt to provide a quick theoretical definition. Here's a favourite: intelligence is "the capacity to understand the world and the resourcefulness to cope with its challenges." In psychological science

it is very important to come up with an operational definition of a construct before studying it empirically. To operationally define something (or operationalize it) means to define it in a way that will allow its measurement. This principle has allowed psychologists to sidestep all the sticky philosophical arguments about the nature of intelligence by defining it as: intelligence is what intelligence tests measure. That is the definition many researches on intelligence that actually involves measurement have used, at any rate.

But again, this answer leads to another question thus: what do intelligence tests measure? Answering it may require a digression about psychological tests and how they work. A basic definition would be that a psychological test is an objective, standardized measure of a sample of behaviour. A standardized measure is a procedure that is carried out in exactly the same way every time somebody takes the test. This means that the instructions given must be the same, and all other test conditions such as time limit and type of location, as well as such subtleties as ambient temperature and lighting, should be kept constant to whatever extent that it is possible. To say that it is *objective* means that scoring is just as standardized as the rest of the test conditions. Personal opinions and feelings of the person scoring the test must not be allowed to influence the score that is given (Hawthorne effect). This means that the manual for administering the test has to be very specific about which answers are correct and which are not, so no personal judgment is involved. The third part of the definition is probably the most important, and the most frequently forgotten: a test score is simply a *sample* of behavior. It is not a measure, in other words, of the person's overall ability in all things, but rather it is just a measure of how that person was able to perform on a particular occasion, at a particular place and time. Anyone who has ever taken an exam with insufficient sleep or under really noisy conditions is aware that a test may not always give a true measure of a person's ability.

This scholar has devoted most of his God given talents to the development of psychological test instruments which are relevant to the scientific measurement of human behaviour both locally and internationally. At the last count, Mr Vice chancellor sir, I have seven

to my credit, all of which are widely used in Nigerian universities where psychology programme is run. In order to buttress the theme of this lecture, the test instruments shall be discussed as this lecture progresses.



The affective domain refers to the classification of human behaviour as a function of the emotionality that determines the intensity or otherwise of behavioural enactment. The organs that represent the physiological engine room of this domain is the heart, and the main operational device used is the blood and the rate at which it is pumped whether at a faster or slower rate to other organs of the body that would be required for action anytime an action needs be taken. For example, when the individual encounters a contingency situation that would warrant a flee or fight split second decision taking. The brain through neurological machineries command the heart to pump blood in sufficient quantity to the organ that will be required to perform an action. When we encounter a fearful situation and we decide to fight, more blood is pumped to the organs designed to carry out the task; the arms, the muscles and the legs. But if we decide to flee, for example: in the case of an encounter with a snake, a hint of the presence of a suicide bomber, the assumed presence of a ghost immediately NEPA disrupt light in the night etc. more blood will be pumped to our legs which is the main organ designed for locomotion and action during flight. In its wisdom the brain will shut down to a minimal level blood flow to organs that require less activation at this particular point in time. Emil Zatopek  a medallist in the London Olympic of year 2012 was questioned by a journalist on his unusual facial expression when running, he replied, 'I was not talented enough to run and smile at the same time'.

The above aptly illustrates the brain's prioritization of blood distribution to reflect the need requirement of the body. The organs of

the body that will require ample blood supply during sexual encounter would be different from the ones activated during verbal outrage, job interviews, or when watching one's favourite game. The affective domain controls the emotion that underlies why women cry more to emphasize hurt when presenting their side of the story during altercation with their husbands, and why men prefer to engage in fisticuff rather than verbally abuse an opponent. Among the athletes that won gold medals, in the last Olympic Games and in whose honour their national anthems were sung, 71% of those who cried were women while 29% were male. Why this was so is a research for another day.

The psychomotoric domain encapsulates activities of the limb and other movable parts of the physical body (ear, nose eye, head, buttock etc.) as controlled by the brain for use in expressing behaviour. A wink, a handshake, a hug, a kiss, all have a universal language of acceptance, flowing of tears from the eye universally conveys a deep seated feeling of sadness or joy, just as an embrace signals welcome or goodbye to a loved one. This domain, as seemingly inexpressive as it appears, is packed full of the essentials of cultural codes, without the mastery of which a stranger is easily detected as a member of the out group. It equally underlies the essential survival instinct required to stay alive amidst the varying danger spots of life. For example, as it has been researched by this scholar, greeting formalities are form of behaviour script among the Yoruba of south west Nigeria that is spontaneously deployed as a tool to tell a well cultured member of their race apart from the presumably uncultured foreigners. The Indians hardly express acceptance and love by kissing in the open like the Americans do; same could be vouchsafed for the African person where the culture has not been significantly diluted.

The three domains highlighted above form the central core of what informs how effective or otherwise the *contingency* environment would function for an individual. Before decisions are made in psychology, whether for clinical, therapy or counselling, contingency environmental factors are carefully weighed for their nuisance value or otherwise.

## Similarities and differences in the methods of scientific and Traditional behaviour analysis

The central aim of scientific behaviour analysis is to isolate and do a critical observation of a sampled behaviour clip, paying attention in the process, to the description of the subject matter by assigning to it a categorization and classificatory label. Time, locale, and the actual manner adopted to conduct the study is considered important for descriptive and inferential accuracy, both of which are required to generalize across a population of similar characteristics. The two most popular designs adopted by scientific behaviour analysts are the longitudinal and cross sectional designs, the third being the admixture of the two. In a longitudinal study, changes in behaviour that are ascribable to developmental growth periods are painstakingly observed. This definitely will span several years of observation that would yield remarkable data to contend with. This particular method has been used to debunk a number of Freudian assertions that have little basis in empirical validity. For example, the regression defence mechanism by Freud suggests that a person retreats to an earlier more infantile state of development in order to re-enact the warmth and the protection only a mother can provide. This, according to him, may be activated when as an adult, he is rejected by friends and suffers a loss of self-esteem. The works of Erik Erikson, Baumrind, Piaget and such likes have shown that other potentially significant social indices do manifest in the process of developmental transformation that can more convincingly explain reaction to failure in adulthood. These are scholars who have adopted longitudinal study design to arrive at their various conclusions.

The cross sectional design, by far the most commonly adopted because of its low susceptibility to participant mortality, adopts a method by which behaviour is measured across situations using as participants, randomly selected individuals that are fairly representative of the target population. Because it saves time and allows for quicker data gathering opportunity, scholars get attracted to it as their choice design for educational research purposes. Each design (longitudinal and cross sectional) has at its disposal for use, four specific methods by which answers are generated to explain

issues that emanate from myriads of psychological queries that daily engage the attention of scholars in the field of behaviour analysis. These are the *survey method*, whose focus is to describe behaviour pattern across environments, *comparative methods*, which compare data gathered on two or more groups with fairly similar characteristics and show whether a degree of similarity or difference exists in their attitude towards given psychological situations such as performance, likes, dislikes etc, the *correlational method* which seeks to establish the existence of a relationship between any given individual's attribute that has contiguous variability, in order to ascertain the level of congruence between the variables, and the *experimental method* whose focus is to establish a cause and effect relationship between research variables. Whereas these methods have procedures that distinguish them from one another, a combination of two or more are often required to explain the outcome of formulated hypotheses.

To conduct a *survey* study scientifically, attention is paid to the scope of the study population that would justify succinct descriptive accuracy. Such terminologies as *randomization, representativeness, scope* etc. are central to survey procedures. When painstakingly conducted, it possesses the capacity to yield results upon which cross cultural attitude to a number of psychological constructs can be described. For example; the popular notion that the Yoruba of south west Nigeria are pleasure seekers, that the Igbo of south east Nigeria are money minders, and that the Hausa/Fulani of northern Nigeria are power grabbers can all be subjected to a survey study that would yield a behaviour script capable of fairly accurately confirming or disconfirming the above haphazardly set hypotheses.

One might like to ask; do people carry out survey studies in the traditional setting to justify the myriads of assertions made while describing people from climes other than their own? Yes, they do, but the way this is done is reflective of Carl Jung's (1875 – 1961) theory of
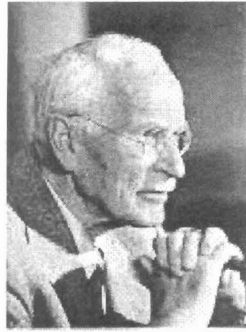
*Carl Jung*

of analytic psychology, in which he espouses that in addition to the individual unconscious, all humans possess a collective unconscious, containing symbols and images shared by all. These symbols and images, known as archetypes, emerge as common elements in dreams and myths, such as, mother being a symbol of nurturance, or creation stories that include the occurrence of a great flood etc. Their presence in the collective unconscious explains why so many myths and stories appear repeatedly, with minor variations, in widely separated areas of the world. But like Freud, Jung has had a large impact on literary criticism and popular culture, but has experienced a steadily diminishing reputation within the field of psychology, for very similar reasons: his ideas, while interesting, are not especially scientific, because they are largely untestable. His impact on the study of world mythologies has been large, especially through the work of Joseph Campbell, author of many books on the cultural and psychological significance of mythology and folktales, but psychologists tend to be wary of some of his more outlandish notions, such as the concept of synchronicity, a vaguely defined "connecting principle" through which coincidences are meaningful and all events are ultimately related in more than a casual way. Remember the popular Yoruba myth about the premonition tied to a scenario like going for an important meeting and knocking, mistakenly though, the right or left foot against a hard object, and using the incidence as a prediction of success or failure for the outcome of whatever venture one is out to achieve. Most psychologists, seeing no way of proving or disproving such assertions as this, will doubt the authenticity of the claims made.

The *comparative* method makes use of techniques that are designed to detect the degree of similarities or differences that exist between two or more fairly equal independent groups, and is often used to determine the shades of differences or similarities present in the attitudinal disposition of individuals to certain psychological constructs. To make this method truly scientific, several empirical procedures are observed, among which are, making the comparison group fairly equal in attributes of interest, collecting comparison data that are not lopsided and relying on appropriate statistical design for interpretation. This method comes quite handy in the effort requiring that gender differentials are empirically captured. The idea whether the standard of education in Nigeria is falling, for example, can be resolved quite effectively, if the right indices of educational attainments are isolated and compared across generational divides. The unscientific mistake common to many people is to isolate fluency in spoken and written English language as a measure of educational standard, conveniently forgetting other factors such as the political, social and economic environment, and the ultimate essence of education which is the need to device means by which sundry environmental problems can have solution.

Outside the scientific field, comparison becomes quite awkward and cumbersome, owing to the fact that superficial icon that catches the eye, or tales that are haphazardly told, which affect little consideration for other mediating factors are often used as bases for comparing two independent individuals or groups. For example, if am a lawyer and my father is a lawyer, then, my son must be a lawyer, a scenario common in the attitude of some parents, particularly the elite, who would coerce their children to tow their line of career. Often than not, this trend will result in a dislocated career path for such a child. First-hand experience confirms for me that every one third of the prospective students admitted each year in this university to study courses in the natural and the health sciences end up in the social sciences. A survey of the factors underlying this development implicate parental intrusion as constituting 43% (Elegbeleye, 2004) of why the students choose courses they ordinarily would not have chosen had they been given free hands ab-initio to make their own choices.

Other faulty comparisons that have important implication for social harmony is the one encountered in the marital institution, where after a separation through divorce, or the death of one spouse, a new one is brought on board. Often, the new hand is assessed using the positive parameters common with the ex. But when negative ends are brought about by the faulty comparison paradigm, consideration for other outlets become available options, likely to lead to incidents of serial marriage or dating. A faulty group comparison, on the other hand, can also be cited in the historical account of the average white man not giving credence to an average black man to outperform his white counterpart on intelligence tests. This may have a deep root in the manner in which Africans were driven into slavery in the Seventeenth and Eighteenth century, and their territories colonized in the mid Nineteenth century.

The third method common to the scientific measurement of behaviour is the *correlation* method. It is the most common way of handling the data from observational (non-experimental) studies in psychology. A correlation coefficient is a single number that indicates the nature and the strength of the relationship between two sets of numbers. Values can range between -1.0 and 1.0. A positive number means high scores on one factor accompanying a high score on the other factor being studied — as one goes up, so does the other. A negative correlation indicates an inverse relationship — as one goes up, the other goes down. The closer the correlation gets to an absolute value (positive or negative) of 1.0, the stronger the measured relationship is. For example, there is a strong positive correlation between shoe size and trouser size, particularly during childhood —as one number goes up, so does the other. There is also a negative correlation between the air temperature and the number of layers of clothing that people would need to wear to ward off the biting effect of the cold —as the temperature rises, fewer clothes are required to be worn.

It is in the area of establishing relationship that the non-scientific assumptions become more problematic and inconsistent with the truth. This is by way of assuming that a correlation represents a causal relationship. Sometimes this is a reasonable assumption — the strong

positive correlation between consistent drug ingestion and illusion deficit, for example —and sometimes it is not. Take, for example, the strong positive correlation between the number of churches in a city and the number of bars. Internationally, as one number increases, so does the other. A causal interpretation may tempt us to assume that religion drives people to drink, or conversely that perhaps the consumption of alcohol leads to greater religiosity. Note that there is nothing in the data themselves to indicate either a causal relationship or the direction of such a relationship (which variable causes which), if one were to exist. In fact, the relationship between the two numbers is again explained by a third variable, in this case population expansion. Larger towns and cities have both more churches and more bars. A cause-and-effect relationship would clearly be an inappropriate interpretation of the foregoing example.

An important warning though, cause-and-effect interpretations are *always* inappropriate for correlational data. Sometimes the data may actually represent a causal relationship, but there is no way of telling from the correlation coefficient alone. For example, imagine, sometimes in year 2012, the federal government of Nigeria making a great show of parading a group of Almajiri children with sparkling school uniform, back- packs and books marching them to the classroom. Reason: the presence of so many Almajiri children who are without education is mmmmmmmmmmmm



*Almagiris*

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assumed to provide recruiting opportunity for all forms of violence prevalent in the northern part of the country, but conveniently forgetting that most of the weaponry deployed to perpetrate the vilolence (not excluding IEDs Improvised explosive devices) are not manufactured and handled by an unlettered hands. The other example, is; if am the second wife in a polygamous family and I suffer barrenness for a few years of my marriage, the first wife must be responsible for my inability to have children because she wants the family for herself and her children alone etc.

The only type of psychological research that allows causal inferences to be drawn is the experimental design, which will be discussed shortly. Despite this, causal inferences are made all the time. Politicians are major offenders. Many Nigerian leaders for example, usually allot credit to themselves for improvements in certain economic indicators by correlating the figures with their months or years in office. For example, the introduction of the GSM (Global System of Mobile communication) is often accredited to former president Obasanjo as a development index during his rulership, nobody remembers to juxtapose the assertion with the development of cable television network that remains the exclusive of foreigners to manage for Nigerians. It is easy to score cheap political points by simply examining available statistics for performance against the backdrop of piecemeal rather than holistic data. Indeed there is not enough information contained in a set of correlational data to assume a causal connection. Be alert for this sort of thing —it's everywhere and it's a clever way of lying.

The tendency to confuse correlation with causation is a perfectly natural one, and one which serves an adaptive function, despite sometimes being wrong. Recognizing that two things that occur consecutively may share a causal relationship is not a bad thing — consider the survival value of noticing that a certain type of cloud often precedes a dangerous thunderstorm or that a certain type of activity by birds often precedes the arrival of a tiger by a few seconds. Indulging too much in this kind of correlational attributes can also lead us to see such relationships where none exists. There is however, a phenomenon known as illusory co-variation which can explain the

popularity of cigarette smoking among its addicts. The myriads of warnings linking the habit with lung cancer is ignored at the expense of an assumed pleasant effect derivable from it, an excuse which differs from one smoker to the other, for some, it is about relaxation, to others, it is about its social, especially, drinking and confidence generating complementarities.

Correlation remains an extremely useful statistical technique for scientific behaviour analysts despite these flaws, as the problem is usually with the interpretation rather than with the numbers themselves. The real purpose of correlation is to indicate whether two variables are related in some way and how strong that relationship is —it cannot tell us anything else about the nature of that relationship. When we get promising results from correlations, we can then use these data to plan experiments to test whether a causal relationship of any sort actually exists.

The *experimental* method of scientifically analysing behaviour focuses attention more on establishing cause and effect relationship between two or more variables (any utterance descriptive of a given unit of abstract behaviour), often classified as independent (IV) and dependent variables DV), usually, attention is equally paid to the intervening or mediating variables, which, if not properly controlled for, can contaminate the health of an experimental research outcome. The *independent variable* is so called because it is a variable that by itself is harmless, but when stimulated or, in the usual parlance, manipulated, it can precipitate a number of reactions known as the *dependent variables.* For example, you intend to measure how effectively the use of calculator can make students solve mathematics problems faster, you provide one out of two groups of students with calculators while the other group is denied the opportunity. If after the two groups have been assigned a mathematics task to solve over time, the group provided with calculators turn out to work mathematics problems faster than those who are not availed similar opportunity, it could then be authoritatively said that, *solving mathematics problem (independent variable) faster (dependent variable)* is as a result of the provision of the calculators *(manipulation)* to the experimental *group,* i.e. the group on whom some actions are performed. This is not to

overlook the fact that experimental conditions for the two groups, or three, where there is a control group, must be made very similar.

Usually, this kind of study method is popular with the biological and physical sciences, rather than the social sciences, essentially because its rigid nature is often difficult to adapt to the social sciences, however its underlying usefulness recommends it for use in the social sciences. For example: it has been found that it allows the analyst to draw causal inferences and observe, with relative ease, whether or not the independent variable caused changes in the dependent variable. This method has been found to be the most effective method of describing, predicting and prescribing norm compliant behaviours.

Is there a remote resemblance of the experimental analysis method in the non-scientific model of analysing behaviour? Emphatically, No. This is one important area of behaviour analysis procedure that does not have a parallel in the traditional or non-scientific method of analysing human behaviour. With confidence, one can say that the experimental method of analysing behaviour and its attendant procedure is responsible for guaranteeing social scientists an incontrovertible place in the scientific world. Before the efforts of Wilhelm Wundt (1832 – 1920) who established the first psychology laboratory in Leipzig, Germany in



*Wilhelm Wunt*

1879 with the intention of studying conscious experience through what he called 'introspection' and the work of Frances Galton (1822 – 1911) whose influence on modern psychology and on

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scientific inquiry, cannot be overstated, as he is responsible for the production of the first intelligence test battery, psychology remained largely a medley of unproven assertions throughout the West. In Africa and the rest of the so called third world, human behaviour analysis remains at the mercy of conjectures and unproven assertions. The reason for this is subsumed in the cultural beliefs that firmly situate human behavioural tendencies in the realm of what in psychology, is nicknamed the external locus of control. This can simply be explained as an attributional inclination to attach causal variables to external factors, for example in most incantations, unseen and intangible spirits are invoked, and when the anticipated happens, thanks are rendered to the unseen forces that make it happen.



*Francis Galton*

Predestination, roughly meaning an advance decision by God about events which in some religious beliefs, stand for the doctrine that God, a deity, or fate has established in advance everything that is going to happen and that nothing can change this, remains a concept that provides ultimate explanation for happenstances and human behaviour analysis in general, particularly among the Yoruba of south western Nigeria (an ethnic setting that typifies other ethnic settings in Africa as far as belief system and human behaviour analysis is concerned). This scholar, in one of his papers (Elegbeleye 2004c), described the Yoruba attributional model as follows:

## SOURCES OF ATTRIBUTION VALUES

Three attribution dimensions often provide the clue to the Yoruba's

belief about human behaviour classifications, namely: **predestination, personal efficiency** and **inherited behavioural scripts.**

## Predestination

Predestination is a system of belief that insists on a predetermined life path for the human being, who, tries as he might, cannot but unswervingly follow the path in accordance with the determiner's wish. In the Yoruba ontology of human personality, there is a strong belief that underlies the fact that human personality is predetermined, in which case, a new-born baby is assumed to have come into the world fully packaged. This packaging covers, among other things, personality type, career choice, lifespan, the type of spouse to marry etc. It is therefore a common practice for parents to seek the expertise of diviners for guidance concerning what type of child the heavens have thrust in their care, and by extension, what type of behavioural pattern is to be expected of the child by his parents.



Baba Yemi Elebuibon                              an ifa Priest

The Ifa oracle is the most favoured channel for divining the Itele **wa'ye omo (Life path or destiny of a child).** In the Ifa corpus, with which an average Yoruba is familiar, and which incidentally provides the basis for a commonly used and well understood constructs, are words such as 'ori, ese, owo and oruko'. 'Ori', literally translates as "head", but carries a conceptual meaning that represents the sum total

of the individual's allotted measure of fortune and misfortune. All of these are expected to have been packaged for him to experience in his sojourn through life. This belief system may have borrowed heavily from the Greek mythology in which virtually all of an individual's behaviour is understood to be propelled inexorably by divine predestination. This brings to mind the chronicled story of Oedipus Rex (essence of which was captured in Ola Rotimi's play, 'The Gods are not to Blame'). In the Yoruba version, where an individual predominantly exhibits an antisocial behaviour, it is often said that he is troubled by his 'ori', hence 'ori n da a laamu' becomes a label by which a ne'er-do-well is described. This type of description defies all descriptive procedures followed in the scientific measurement option (referred to above, i.e. exploring all the 'environments' for an answer), thus exposing the assessor to the strong possibility of subjective conclusions, from which equally can derive faulty diagnoses, leading ultimately to wrong behavioural prescriptions.

The 'owo', which literally means the 'hand', is conceptually a construct that depicts the interplay between the individual's free-will and his or her predestined nature. Through hard work, he can translate 'ori buruku' (misfortune) to 'ori rere' (success or valuable personality). It is thus not unusual to hear it said that 'owo eni ni a fi n tun iwa ara eni se', (hard work is what is required to translate misfortune to fortune), which originated from the Ifa corpus. 'Ese' is another construct, the literal translation of which approximates the 'leg', but conceptually, it emphasizes the judicious use to which the individual puts his locomotive freedom. This freedom is not blind to the allotment predestined for the individual, who only has to fulfil his destiny by using his two feet to locomote himself into fortune or misfortune. A wife or a child that is described as possessing 'ese buruku' (bad leg), is a harbinger of misfortune for whomever harbours him or her. This construct is also used to describe the personality of an individual. For example; 'elese osi' (owner of left leg) or 'elese osi meji' (possessor of two left legs) or 'elese buruku' (owner of a bad leg) are all figurative expressions depicting the construct of an unacceptable personality strewn with behavioural dispositions that are not norm compliant among the Yoruba.

'Oruko' (name) is another construct that is used commonly to depict a person's personality (sum total of enduring behaviour). The type of a name a child bears is thus a derivative of the Ifa divination and a pronouncement on his or her life-path. Right from birth, the name of the child is a label that directs attention to the kind of profession he must choose. Names such as 'Abeegunde', 'Ojeyemi' and 'Eegundoyin' belong to the masquerade profession. 'Faseyi', 'Fadeyi', 'Fayoose' and 'Faponle' are example of names that tie the child to his divined confraternal antecedent. Names such as 'Osungbohun', 'Osundele' and 'Osungbayi' are labels that attach the child to the river goddess 'osun'. 'Balogun', 'Akindele', 'Akinrefon', 'Akogun' etc. are associated with warfare and, by extension, are used to describe aggressive and bold personalities. A person's occupation is equally deployed as a behavioural labelling measure, which is believed can give a clue to his character portrait. For this reason, it comes easily to the Yoruba to define personality and performance through a person's name. The saying that 'Oruko lo n' ro omo' (the child's name is a prompt for his behaviour) is an expression that conveys the belief that a person's name has an implicit value-tag that predisposes him to exhibit good or bad, aggressive or amiable, warm or hostile behaviour. This no doubt echoes Mbiti's (1970) submission that:

> ' traditional religions permeate all the departments of life. there is no formal distinction between the sacred and the secular, between the religious and non-religious, between the spiritual and the material areas of life. Wherever the African is, there is his religion'.

## Personal efficacy

The belief in personal efficacy is as well entrenched in the Yoruba ontology as the belief in predestination, Personal efficacy is understood to be an endowment given to the individual as a possible means to escape the unpleasant and stifling effects of untoward destiny. The personal mainstay of the individual is his ability to evoke the admixture of internalized values with courage and

determination, to overturn predetermined ill luck and a jagged life path. This is roughly similar in interpretation to Rogers' (1871) positive self-statement. Hence, hard work and diligence become watchwords that feature frequently in folklores and poetry of different genres. For example, in their rudimentary exhortative advocacy to the adolescents and youths, when they are considered old enough to take on adult responsibilities, such idioms as of the following are invoked;

> ikawo o laso, teni n teni
> lo d'ifa fun Ajitoni, won ni b'o
>  ji t'oni, ori nikan lo m'eni 'o ji t'ola
> oni l'ari eleda l'omola
> ojumo t'oni t'o mo ba wa l'aye
> k'a loo latifi sise a se ni laari
> nitori t'o ba d'ojo ale, k'a ba a
> r'eni sin 'ru fun ni
> t'a a ba bi 'ni tan a tun'ra eni bi

> (It is what one works for that he can freely use
> Which forewarned Ajitoni,
> That how man survives from one day to another
>  Is a mystery reserved only for the gods to unravel,
> The day that breaks today meets us alive,
> and admonishes us to apply our Mind and body
> to hard work, so that in our old age,
> we can be privileged to be served and treated like a lord.
> Even, after physical birth, it behoves)
> one to rediscover self).

The above example remains words of exhortation used to encourage unforced hard work in adolescents and youths. They fall short of full theoretical propositions that can form the basis for virile empirical verifications. For example, in courting the harsh realities of life, experience has shown that hard work or internalised motivational attribute may not be the only recipe for success, except and until it is scientifically proven to be true for all situations.

Another measure put in place to advocate personal efficiency is the marital obligation that imposes upon the man the need for him to relocate from his father's compound to his own as soon as he is betrothed. To enjoy the freedom that comes with age, a separation from one's parents' direct sphere of influence is highly desirable, because it serves to prevent friction that may arise as a result of clash of interests between an adult child and his parents. However, such relocation as this does not come without its concomitant commitment to prepare materially and financially ahead of time to start a family worthy of respect among one's peers. This becomes a major occupational motivation, and when achieved, one becomes better integrated into the mainstream of one's age grade. Idioms that stamps this graphically as an exhortation rather than a formalized counselling procedure that is valid, reliable and generalizable and available as a tool that can be readily used by Yoruba elders to teach youngsters the right values are expressed thus:

> Aponle o si f'oba ti o l'olori
> Borokini o se e f'ogun odun se
> Adagba ma l'adie irana at'adogbo
> Ma ni'le lori, won o r'aiye wa
> Akuku ibi san ju radarada omo

> (A King without a wife courts disrespect
> One does not remain a bachelor for twenty years
> An old age without a hope of proper burial
> Nor a befitting shelter is a life wasted
> Better not be given birth to than to live and die unsung.)

Unfortunately, couching behaviour modification ethos in poetry and idiomatic expressions may be responsible for why the African person is not proactive in shaping human behaviour through the use of methods that have been tested and replicated to a level where they brook no sentimental unverifiable conclusions. Though a harsh phrase, Nyasani (1997) described this unchallenging attributional

method as 'natural benign docility'.

## Inherited Behavioural Scripts

There are some personality attributes that are believed to be naturally inherited. This belief is not deterred by a parallel belief in predestination or the human ability to transform one's life for the better through hard work. Rather, it is an entrenched cultural belief and practice that certain individuals are not expected to deviate from a personality label formally designed for their special position as a result of their special birth. These are members of the royal household and the priesthood order. Royalty conditions the behaviour of individuals that have royal blood in their veins to adopt personality traits that are tainted with authority and haughtiness – a personality that is afflicted with faint traces of a superiority complex. Cultural belief imposes authority on this set of individuals, and over the passage of time, they have thus become accustomed to the use of power and the privileges that come with it. This has given vent to such sayings as:

> A a ki nri omo oba k'a ma ba dansaki l'ara re
> (A prince will always exude the aura of royalty)

Other snippets that convey the authority-laden personality profile of the royal household include the following:

> Alayeluwa (Royal Majesty)
> Oluaye (the owner of the universe)
> Igba keji Orisa (second in command to the gods)
> Oba l'o n' ile (the owner of the land)
> Kabiyesi (someone whom nobody dares to question)
> Ejigbara ileke (icon of wealth).

Individuals from the royal household are therefore imbued with characteristics that agree with the dispensation of authority, leadership privileges that are not earned but imposed, and an overall outlook on life that subordinates others. Authority is not wielded by the royal household alone but also by delegated chiefs who operate at

a lower cadreship than the king. Royalty also comes with special apparels, which are emblematic of the exalted position of members. These apparels are heavy and exotic and are adorned with expensive beads.

Priests and diviners have scripts of behaviour that come with the special duties they perform in the Yoruba society. Apart from operating as a messenger between humans and the gods, they are healers of some sort, and at times could be foretellers of future events. They are also believed to have direct access to 'Olodumare', the head of the pantheons. These duties impose upon them a personality profile that sets them apart from the generally prescribed social order that governs conduct in the Yoruba sociocultural enclave. They are seen but hardly ever heard, and when they are heard, it is to deliver messages from those on high. This therefore confines them to restricted social latitude that does not extend beyond the milieu of their shrines. They are generally respected along with other members of their household, and they are believed to be the primal custodians of wisdom and the heirlooms of the original culture of the race. Ascribed to them are such labels as 'eni orisa', (the instruments of the gods), 'aboruboye aboye bo sise' (may authority attend all your sacrifices) and 'baba awo' (highly revered wise one).

I will rather subscribe to a character assessment where statistical evidences of relevant community centred achievements are adopted as a parameter for decision making where it concerns choice of leadership materials. Lamentably it can be conjectured that the glaring inability of majority of African communities from being able to transform into a world other than the 'third' classification given to them, is attributable to their subjective evaluation system. Having taken a position in support of adopting the empirical approach in behavioural assessment, I have designed, through painstaking research efforts, methods that offer alternative assessment criteria to our traditional way of issuing collective labels to clearly distinguishable behaviour scripts. If the methods are adopted for use in, for instance, the way we choose our leaders, or the way individuals choose their friends and spouses, or for self-personality identification, our world would have set out on a voyage from the

third world to the 'first world. I will proceed to describe the seven measurement techniques otherwise known as psychological instruments that I have designed to accurately measure human behaviour in the area of social, counselling and personality psychology.

1. The first one in the order is code named BII, an acronym for Background Information Inventory (Elegbeleye 2008). The rationale for developing this instrument consists in
the fact that there is an undisputed understanding that behaviour derives essentially from the intricately woven input of both the inherited traits and the environmental factors that shape them. To access scripts that would fairly aggregate a person's behaviour, therefore, credibly substantiated information about the past experiences of the individual over a stretch of time need be obtained. It is for this purpose that this inventory is designed. Built into it are some lie safeguards that are constructed to ensure test validity and reliability.

The test is segmented into six different sections, with each focusing on an essential attribute by which the human person is defined. These are;

a. **Biodata**.

Question items in this section were designed to provide data about the client's identification using the indices of; name, gender, age, marital status, date of birth, nationality, ethnic grouping, local government area, height, and weight.

These data, when collected, would be useful as base data for establishing independent group dichotomies in comparative, correlational and experimental measures. For example chronological age can be graded into developmental attribute variation and measured to establish differences or similarities in construct variability. Measures on 'nationality' would also be suitable for establishing cross-cultural criteria.

## b. Location.

Location data are expected to be provided by responses given to question items in this section. The question items specifically seek data about; 'town of birth', 'town of present abode', 'town where most of childhood was spent', 'Home town of father' 'Home town of mother' etcetera.

The question items that derive from the above premise, have direct implications for identifying the environment that accommodated those critical years of the individual's childhood when attitudes are formed, and by inference, laying the foundation for most of adulthood behaviours. Information in this regard would enable the user determine the influence of the immediate environment (urban, rural, Spartan, affluent, ghetto, low/high density, free or restricted society etc.) on behaviour. The town where parents come from, if the same with where the child is raised suggests homogeneous breeding, and if different, implies heterogeneous antecedent, both of which have psychological implications for sociability and genetically enhanced cognitive mix.

## c. Faith.

The data gathered in this section would help establish the respondent's faith. Question items are tiered in three dimensions i.e. the faiths of the father, the mother and the respondent

A person's faith is considered as a very powerful proximate factor capable of predisposing an individual to a choice of particular set of schema that would make behaviour predictable in certain directions. The national calamity suffered by the United States of America on September 11, 2001 from religion-inspired crusaders has succeeded in launching afresh the veracity and consummate reality of religion-driven behaviour into the consciousness of the presumably scientized/sophisticated contemporary person. To have an incisive access to a person's total behaviour, therefore, the need for information on faith becomes expedient.

## d. Travel Data

This section contains question items whose answers would provide relevant data on the respondent's exposure through travelling to other locations in his immediate and remote environment. The question items cover; places visited in Nigeria, outside Nigeria, how frequently the journeys were made and for what purpose.

Travelling offers the uncommon opportunity to have one's mind liberated from the encumbrances of routine boredom that one's immediate environment imposes after a lifetime of continuous exposure to it. The opportunity to access other contradistinctive environments with the required adjustment necessities validates an already existing prosocial behaviour and entrenches new ones. It also makes it possible for a renewal and reappraisal of one's immediate environment using the ones visited as a measurement criterion. Being able to give a balanced evaluation to an issue correlates higher with individuals who are well travelled than those who do not have the opportunity.

### e. Parental Background

This section features question items that are designed to provide answers which will enable users (Researchers & Counsellors) have an in-depth knowledge of the client's antecedents. Information are expected to be provided on nurturance, custodial experiences, structure of the social environment etc. (Elegbeleye, 2002, Bandura, 1967, Erikson, 1968)

Having information about the aggregate attitudinal disposition of an individual would afford a behaviour analyst the rare opportunity of fairly predicting the behaviour type that can be spawned by the identified attitude. Where describing, predicting and prescribing behaviour is the focal objective of the analyst, information collected from this section of the instrument will be most valuable.

### f. Parents' Educational background

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The level of enlightenment through access to formal education is a strong factor that determines to a great extent the method of parenting an average parent will adopt in raising his or her children. Response to relevant questions asked in this section would provide answers required to determine whether an individual enjoys a head start that can only be provided through informed instructions during childhood.

A structured education is a powerful behaviour change agent when it is given to an individual who is willing to receive it. For example, a parent imbued with an average measure of western education would bring this to bear on the development of his child by paying special attention to issues relating to cleanliness, constant exhibition of norm compliant social cum cultural behaviours and use of language in its appropriate context. Where education is thoroughly delivered, it is capable of producing absolute effects in the direction to which it is tailored. One can imagine the havoc rather than good that western education is doing in a situation where a parent who learnt English as a second, not primary, language deploys the borrowed language as the sole means of communicating with his child, with the attendant defects commonly associated with the usage of a language outside the cultural milieu that situates the relevance and import of all the nuances that enrich it. Need I say that this is a common practice among the majority of parents here seated today?

## g.    Socio-Economic Background

This section has the objective of gathering data about the socio – economic background of the client. For this reason, specific enquiries are made about incomes and affluence rating of respondents. The questions also cover the type of territorial/spatial convenience at the disposal of the respondent.

Wealth confers power and power engenders privileges, therefore.

individuals who have access to ample supply of life sustaining and polishing perks are predisposed to adopting behaviour scripts that foster confidence, authority and self-assurance, particularly in an environment where wealth is not equitably distributed. In the meritocratic social atmosphere of most capitalist oriented economies, people are expected naturally to enjoy what their hard work, political privileges, social connections, family wealth etc. throw on their laps. Arising from this discriminatory Nigerian socio-political arrangement, is the fact that some individuals are automatically hampered by the conditions of their birth while others are enhanced by theirs. It is only reasonable to assume therefore that children from poor family background would, early in life, acquire and perfect behavioural dispositions that are consistent with managing poverty just as those from affluent background would be marked out by behaviours that suggest confidence and comfort and at times superiority complex. Information on socio-economic background is expected to provide dependable data whose interpretation would give a clue to what perception underlie particular behaviour scripts

## Analytic Relevance

As the name suggests, the inventory is designed to provide the analyst with the opportunity to gain some informed insight into the existential immutabilities that define the respondent, such as who his parents are, where he is born, what sibling positioning he occupies etc. These information are assumed to be peculiar to the client and from them the code of his uniqueness can be deciphered. The traditional non-scientific method shy away from asking in-depth and appropriate questions that are capable of subverting the cultural inhibitive tendencies of the African person from disclosing information that are considered private and likely to expose him to ridicule if the truth be known. By fielding questions that are direct and appear fairly harmless, this inventory succeeds in making it easy for respondents to want to provide information.

## Test Administration

After the target population has been defined and identified, test must

be administered in a well-ventilated room with comfortable seating arrangement. Markers, capable of bold prints, such as pencil, ink pen etc. must be used. The instructions that are displayed on the front page of the test instrument must be read in clear voice by the tester to the testees in a manner that would allow testees to ask further questions should the need arise. Such questions as this should not be ignored by the tester if it will serve to further give clear direction to testees about how to respond to the question items. Test administration is not time bound, hence no time gap is necessary but respondents should not be encouraged to keep too long before turning in their responses. Test administrator should also further encourage testees to be spontaneous in their responses rather than think them through, which if done, will drag test completion time and contaminate test outcomes. The validity of this test is guaranteed to the extent that the respondent is willing to be truthful and forthright in his/her responses, hence, test administrator need to bring to the fore his testing expertise by reassuring testees of the harmless nature of the testing exercise but rather that it is a first step in unmasking the myth of concealing facts about one's personal information, which if successfully overcome leads to development of healthy personality profile

## Scoring

The items contained in this particular inventory are not designed to be scored using ordinal scaling. In as much as they are neither quantitative nor qualitative in orientation but rather investigative and exploratory; the data gathered are expected to enrich the client's personal information folder which can easily be retrieved by the professional user for counseling, psychotherapy and clinical activities. For budding behaviour analysts such as undergraduate and postgraduate users, they are provided with materials that would give them quantum advantage in drawing both lateral and vertical dichotomies in hypotheses formulations and research designs.

For example; in section 'A' measurements can be outlined along such criteria as gender, age, marital status, nationalities, political landscaping, height, weight and ethnic grouping. In section 'B',

measurement can be directed at such ventures as determining the psychological implications of density in terms of the population count of where the client resides including whether he enjoys direct proximate interpersonal relationship with his parents etc. 'Faith' which is the subject matter of section 'C' of the scale would avail the user the opportunity to measure how much of attitudinal disposition is a function of religious orientation, and which of the religions, as the case may be, would exert more influence on behaviour etc. Section 'D' presents the opportunity for measuring how extensive travels or lack of it can impact behaviour in specific or general terms. 'Parental Background' which is the subject matter of section 'E' suggest that if nurture is truly a behaviour determinant, then parental background would come in handy as a factor that can be isolated as capable of influencing behaviour, particularly in the areas of parenting styles, custodial influence, and sibling positioning. Parental educational background espouses the validity of the fact that education is positively a powerful behaviour change agent; hence comparison can be carried out on the performance of individuals whose parents are educated and those whose parents have no formal education on language skill, information processing and access to information etc. Data on 'socio economic background' constitute the last scale in this inventory. Such data as this can be used to prove behaviour differentials in confidence rating, stealing behaviour, sociability proneness etc.

## Statistical Information

## Reliability

In order to establish whether this inventory possesses the accuracy required to produce a fairly similar result when assigned for use on different occasions, a pilot study was conducted four weeks apart using the same samples to ensure external reliability. Efforts were made to ensure that test conditions remain the same. When the scores generated at the two instances of test administration were interpreted using relevant statistics, a significantly positive relationship was established. To establish internal reliability, the split half reliability was conducted on the scores of randomly selected participants and a

high reliability coefficient result was obtained.

## Validity

A jury - styled content validity check was conducted in which eminently qualified psychologists and social scientists were given the opportunity to go through the inventory and offer free suggestions as regards necessary additions or subtractions to be made. The experts were required to rate their verdicts on a scale of 5 for each of the following criterion; depth, spread, language, and general structural fit of the inventory. Table 1 below represents their verdict

## Jury - Styled Content Validity Rating of Experts

|  | N | Mean | SD | Rating % |
|---|---|---|---|---|
| Professorial Category | 9 | Depth = 18<br>Spread = 19<br>Language = 18<br>S. fit = 18 | 0.7<br>1.0<br>1.2<br>0.9 | 92 |
| Middle Level Academis | 17 | Depth = 15<br>Spread = 19<br>Language = 18<br>S. fit = 17 | 0.4<br>1.1<br>0.5<br>1.3 | 87 |
| Post Graduate Students | 26 | Depth = 19<br>Spread = 18<br>Language = 18<br>S. fit = 19 | 1.4<br>0.6<br>1.0<br>0.8 | 94 |
|  |  |  |  | Mean = 91 |

Arising from the fact that background information can be described as serving its purpose only when it has a spread that covers information that will amply put the user in good stead to gain an insight into the critical aspects of the respondent's cumulative life events; this validity check is considered sufficient and appropriate for this kind of inventory.

**2.** The second in the group of test instruments referred to earlier is the development of a **Personality Scale** with the acronym of **PS** (Elegbeleye 2008). This scale was designed to measure the more

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stable and enduring characteristics of an individual, that is, the typical behaviour. This kind of tests should be distinguished from achievement tests, which assess a performance after a course of study and an aptitude test, which measures a person's natural flair or potential for success in a particular field. The development of the test is only original to the extent that it delineated the assumed continuum between extraversion and introversion. It is of importance to note that erudite scholars of worth have laid a good foundation for the blueprint that was built upon by this scholar. Prominent among the scholars were Eysenck (1952), Cattell (1943) Macrae and Costa (1987). While the personality scale developed by Eyscenck used only three factor model, Cattell contended with 16 factor personality indices (16PF), Macrae and Costa identified with five personality criteria (Big 5) in which both the extraversion and introversion categories were built into a continuum. However this scale is distinguished by the question arrangement and material content which were essentially non-foreign, including the fact that six personality categories were clearly delineated.

A part of the scale adopted the pattern devised by Osgood, & Tannenbaum, (1957), known as semantic differential. On a semantic differential scale, the respondent is asked to mark a point on a continuum between bipolar adjectives according to the position they feel the object holds on that scale for them. Part A of the scale however differs from Osgood's in the sense that rather than arrange the adjectives in a bipolar fashion, this part of the scale employs the use of direct words to elicit response from subjects. 53 words are generated as a field in which representative constructs of the personality dimensions are presented as stimuli to respondent to pick from. Part B of the scale however followed the bipolar arrangement of words. It is considered important to operationalize the six key factors that determined the broad delineations of the personality boundaries. These are;

**Neuroticism:** can be defined as an enduring tendency to experience negative emotional states. Individuals who score high on neuroticism are more likely than the average to experience such feelings as

anxiety, anger, guilt, and clinical depression (Matthews and Deary, 1998).. They respond more poorly to environmental stress, and are more likely to interpret ordinary situations as threatening, and minor frustrations as hopelessly difficult. They are often self-conscious and shy, and they may have trouble controlling urges and delaying gratification. Goleman (1997) situates neuroticism as relating to emotional intelligence, which involves emotional regulation, motivation, and interpersonal skills. It is also considered to be a predisposition for traditional neuroses, such as phobias and other anxiety disorders. On the opposite end of the spectrum, individuals who score low in neuroticism are more emotionally stable and less reactive to stress. They tend to be calm, even tempered, and less likely to feel tense or rattled. Although they are low in negative emotion, they are not necessarily high on positive emotion. That is an element of the independent trait of extraversion. Neurotic extraverts, for example, would experience high levels of both positive and negative emotional states, a kind of "emotional roller coaster". Individuals who score low on neuroticism (particularly those who are also high on extraversion) generally report more happiness and satisfaction with their lives.

**Extroversion:** The trait of extroversion is a central dimension of human personality. Extroverts tend to be gregarious, assertive, and interested in seeking out excitement. They experience a low level but non clinical hyperactivity that naturally predisposes them to inattentiveness and space roaming. They exhibit a tendency to be bored when denied of variety of items to interact with. An individual that scores high on extroversion scale is often less likely to be contained within specified boundaries for any length of time; hence they make friends more easily, but struggle hard to keep a long lasting relationship and are given to spells of boredom when nothing is available to excite them.

**Introvertion,** in contrast, tends to describe individuals that are rather more reserved, less outgoing, but are also marked by a richer inner world. They are not necessarily loners but they tend to have smaller circles of friends and are less likely to thrive on making new social

contacts. Introverts are less likely to seek stimulation from others because their own thoughts and imagination are stimulating enough. The terms introversion and extroversion were first popularized by Carl Jung. (1875 – 1961). Virtually all comprehensive models of personality include these concepts. Examples include Jung's Analytical psychology, Eysenck's (1971) three-factor model, Cattell's 16 personality factors, the Big Five personality traits, the Four Temperaments, the Minnesota Multiphasic Personality Inventory, the Myers-Briggs Type Indicator, and Socionics. Extroversion and introversion are, as was alluded to above, generally understood as a single continuum but are treated as separate personality types in the context of this scale as it has been found (Elegbeleye, 2008) that some individuals remain significantly more of one than the other throughout life. However, to be high on one is necessarily to be low on the other. While extreme introverts and extroverts are a psychological reality most people fluctuate between the two poles throughout their lives.

**Openness to experience** is one of the five major domains of personality discovered by psychologists (McCrae, & John, 1992). Openness involves active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, and intellectual curiosity (Costa, & McCrae, 1992). A great deal of psychometric research has demonstrated that these qualities are statistically correlated. Thus, openness can be viewed as a global personality trait consisting of a set of specific traits, habits, and tendencies that cluster together. Openness tends to be normally distributed with a small number of individuals scoring extremely high or low on the trait, and most people scoring near the average. People who score low on openness are considered to be closed to experience. They tend to be conventional and traditional in their outlook and behavior. They prefer familiar routines to new experiences, and generally have a narrower range of interests. They could be considered practical and down to earth.

**Conscientiousness** is the trait of being painstaking and careful, or the quality of acting according to the dictates of one's conscience. It

includes such elements as self-discipline, carefulness, thoroughness, organization, deliberateness (the tendency to think carefully before acting), and need for achievement. It is an aspect of what has traditionally been called character. Conscientious individuals are generally hard working and reliable. When taken to an extreme, they may also be workaholics, perfectionists, and compulsive in their behavior. People who are low on conscientiousness are not necessarily lazy or immoral, but they tend to be more laid back, less goal oriented, and less driven by success

**Agreeableness** is a tendency to be pleasant and accommodating in social situations. In contemporary personality psychology, agreeableness is one of the five major dimensions of personality structure, reflecting individual differences in concern for cooperation and social harmony (Graziano, & Eisenberg, 1997). People who score high on this dimension are on average more empathetic, considerate, friendly, generous, and helpful. People scoring low on agreeableness place self-interest above getting along with others. They are generally less concerned with others' well-being, report less empathy, and are therefore less likely to go out of their way to help others. Their scepticism about other people's motives may cause them to be suspicious and unfriendly. People very low on agreeableness have a tendency to be manipulative in their social relationships. They are more likely to compete than to cooperate.

**Rationale for Item Development**
Factor analysis technique was used to find which of the traits listed in Part A of this scale correlate highly with one another. A pilot sample size of 60 randomly selected undergraduate students from across the faculties of Law, Social Sciences and Administration of Obafemi Awolowo University, Ile – Ife, Nigeria were asked to match the traits with the six personality dimensions, According to Kalat (1992), the first five traits have proved to be a useful way of describing personality not just in the United States and other English speaking countries but also in the European countries. This pilot study presents an opportunity for a cross–cultural validation of this assertion. Respondents were given the operational definition of each

of the six dimensions and participants were then asked to match each trait with the personality dimension they describe without allowing any overlap. Their responses were scored and correlated. Items originally included that were found to correlate poorly with the others listed for each personality dimension were excluded.

## The Analytic relevance of the scale

Personality issues constantly pose a psychological problem to psychologists whose interests are located in the area of assisting clients to redress behavioural deficiencies that are attendant on both deficit and excess behavioural problems. Such problems as this may require urgent solution that is essential for marital harmony, proper educational adjustment, interpersonal challenges, social emancipation and self-acceptance. At the level of the individual also, the issue of personality poses personal challenges in the sense that it is not often that individuals would come up with what clinically represents his or her true personality type, hence people often blissfully indulge in ascribing to self, behaviour scripts that are imagined to be social-value compliant while in reality, and given contingency situational events, would behave in manners that contradict their self-acclaimed personality type. This test is therefore designed to assist the analyst, researcher, individual users, psychotherapists and Guidance counsellors etc. by providing for them the ample opportunity to engage in useful empiricism while engaging in formulating hypotheses for determining the approximate personality description of an individual.

**Test Administration:** Similar technique was used in test administration as was described in 1 above and same for all the tests developed by this scholar because actual testing procedure requires that the tester bring to bear a high level of expertise, which if absent, can contaminate the outcome of testing exercise . The Hawthorn effect, for example, has continued to pose a nearly universal problem in research with human subjects because of the near impossibility, from both a practical and an ethical standpoint, of keeping research subjects unaware that they are participating in a research project. Unfortunately, the mere recognition that they are put on the spot for a

research exercise can exert a profound influence on their behaviour. Whereas the usual goal of every research is to describe behaviour as it occurs naturally, or reflect the quantum of it possessed by an individual, it is actually quite difficult to get people to "act naturally" or be accurate with the truth when they know they are being tested or observed.

## Test Reliability

Scores of 40 pilot participants (20M & 20 F Mean age = 19), for section 'A' of the scale were correlated with their scores for part 'D' of the scale (both part 'A' and part 'D' of the scale contain the same set of words but arranged differently) to establish the internal consistency of the scale, a correlation coefficient of the two array of scores produced a significantly high correlation. Also a test retest was conducted for the same pilot group at the interval of four weeks to establish the external reliability of the scale, the result produced was considered sufficiently high. From these two correlation coefficients, both the internal and external validity of the scale were established.

## Test Validity

The following correlation coefficient were recorded when the scores obtained by respondents in a pilot study were tested for criterion validity. For each case, 20 undergraduates from departments with two contradistinctive disciplines were randomly selected and have their personality types measured on this scale. Introversion and extroversion were the first criteria measured. Participants were drawn from the College of Medicine (a programme whose instructional focus is quintessentially conservative and orthodox in nature) and were pitched against participants drawn from the Department of Dramatic Arts (a department whose main academic focus devolves on mastering the art of novelty and stage performance). The medical student participants were hypothesized to be high on the introversion scale while the other were predicted to be low on the same scale and vice versa for the other criterion (extraversion). A rather low criterion validity was obtained for introversion, and significantly high for extroversion for Dramatic Arts participants, while Medical

participants scored quite low on extraversion, and high on introversion. These two set of scores confirmed the hypothesis that affirms a corresponding outcome in line with the instructional focus of the two programmes.

Another validity check was performed when the test was administered on 100 (57M & 43 ,F Mean age = 18), participants from which a bipolar score of 20 highest scorers on 'introversion' scale and a similar 20 highest scorers from the 'extraversion' scale were used as a selection platform to generate two fresh groups of participants on whom was administered another semantic differential test designed by the author but with words which are different from but are synonyms of the ones in the original test, for example; where under 'neuroticism' we have the two bipolar words of 'friendly' and 'lonesome', they are replaced with the words 'warm' 'reserved'. This was done for all the items in Part 'D' of the scale and administered on the two groups. When the scores of each group was compared with their previous score from the original scale, the correlation coefficients obtained; for the introspection scorer correspond highly, with the fresh score, while those of high 'extraversion' scorer also recorded a high correlation between their previous score and the fresh one. With these correlation coefficients, a concurrent validity was established for the scale.

Continuing with the standardization, a set of psychiatric patients, who are classified as mildly afflicted, but who registered either as 'out-patient' or 'in-patient' at the psychiatric ward of Obafemi Awolowo University Teaching Hospital, Ile – Ife, Nigeria, had their scores on this section of the scale correlated with randomly selected students of Obafemi Awolowo University for the pilot study to measure 'neuroticism' and 'conscientiousness'. The correlation coefficient obtained, was low for student participants for whom was predicted a high score on conscientiousness and a low score on neuroticism on the one hand, and on the other hand, the opposite prediction was made for psychiatric patients. The two outcomes were as predicted, thus justifying the validity of the scale.

'Agreeableness' as was mentioned earlier is the tendency to be

compassionate toward others and not antagonistic. This inclination, common-sensically, should produce different attitudinal disposition to life, objects and events as differentiated from the kind of attitude which 'openness to new experience' as an attribute would produce. A set of items were generated. One set typifying the likelihood of what a person high on 'Agreeableness scale' will likely do, given certain conditions and situations, and what the person high on 'openness to new experience' scale will do, given the same conditions and situations. These items were administered on normal ('normal' was determined by students who did not report any record of breakdown or serious health condition in a period of one year before the pilot study) university participants.

An inter-item correlation coefficient of the overall score yielded a score considered low to justify the divergent validity property of the scale. To ascertain the reliability of the above two sets of tests, an alternate form reliability test was conducted immediately for the psychiatrist patients and the normal student participants used for the pilot study. When the scores on the two tests were correlated, a high correlation coefficient was obtained, thus establishing a sufficient reliability level to justify internal consistency. A four-week test retest time interval was conducted for the second test ('Agreeableness' and 'openness' to new experience scale). A high correlation coefficient was similarly obtained, thus attesting to the fact that the error variance of time sampling did not interfere with the consistency of the test.

**Scoring:** The scoring procedure was given ample attention as proper handling of the section need be objectively done and in a manner as to justify unbiased measurement exercise. The scoring method for this particular scale was given the required attention in the manual for the scale.

3. The third test instrument developed by this scholar is tagged **Sociability Scale** with **SS** as acronym. The inventory was designed to measure the social interaction profile of respondents. Individuals are known to interact because they cannot operate in isolation of others when there is a need to initiate and execute actions in a social

environment. For this reason, individuals play roles assigned to them by their environments (social circumstances). Galaghan (1989) defines these roles as the slots or positions that we occupy in the society. These slots or positions according to another scholar, Gross (1992), in a sense, exist independently of any particular individual who occupies them. Associated with each slot or position are expectations about how the occupant should behave (and sometimes think, feel and look) which are called norms (the 'oughts' of roles).

There is also the factor of social interdependence, which means reliance on other members of the group for feelings of connectedness, social and emotional rewards and a positive social identity. Items 1-7 require information on the social profile of the respondent determined by his attitude towards making and keeping friends. Items 8, 12 & 13 seek gender information as regards the friendship making skill possessed by the respondent. Items 9 and 10 seek information on duration of friendship so as to establish consistency and staying power in group shared activities. While items 14-21 examine social profile against the background of group membership functions. Items 22-25 are designed as a self-rating scale with which respondents are required to do a self-evaluation of their social profile. The structure of the scale therefore stands as follows;

→ Attitude towards making and keeping friends (items 1 – 7)

→ Gender sensitivity in friendship making (items 8, 12 & 13)

→ Attitudinal consistency in keeping friends (items 9 & 10)

→ Group membership social behavior (14 – 21)

→ Social profile self evaluation (items 22 – 25)

Making and keeping friends is a social attribute that determines whether one can initiate a social action in terms of crafting a social relationship in which the other party/ies would willingly agree to strike a social contract. Social contract in psychology is predicated on the anticipated satisfaction of a perceived social need. The need profile in this case may however be less obvious to and indeed difficult to define at the outset by the social participants themselves. Whether a social relationship lasts or is short lived, nevertheless, depends on the successful satisfaction or otherwise of this initially

amorphous need profile. For this reason, the ability to define a social need with accurate evaluation of the satisfier probabilities becomes an important index of ascertaining social understanding.

Complementary to the above is the fact that gender sensitivity in all social relationships is a function of an inexplicable chemistry, which is capable of producing effects that can determine the success or otherwise of any given social relationship in which both male and female participants are players. Social acceptance by members of the opposite sex is highly valued by both male and female social interactants. More often than not, socially conscious players go the extra mile to look their best so as to attract positive evaluation, particularly from members of the opposite sex. Presumably being the reason why positive impression becomes a very important construct that motivates norm compliant social group dynamics.

Also, behavioural consistency develops into positive attitudinal disposition to valued objects and in turn determines personality type. Certain personality types may have challenges in having the staying power to hold on to social relationship for any appreciable length of time. For example, the two constructs of excitability and hyperactivity which fairly define an extroverted personality may constitute a constraint that would hamper consistency in social relationship. Where this is the case, preference for varieties may in itself become an index of poor social rating. Behavioural consistency therefore can be used as a predictive parameter to determine the potential for altruism, marital success, or group compliance skills in social players. The ability to translate social desires to action by operating directly in a social group context can define social expertise where the actions are social norm compliant. Observing the actual performance of a social player at the level of in-group interaction can provide the observer with the accurate group rating of the observed individual in terms of social sensitivity. Hence, the number of social groups individual social players belong to, variety, in terms of whether the groups (where they are more than one) parade exclusive membership, and commitment to group activities can help determine high level social rating.

The consideration that informs what went into the construction of the last segment of the scale, self-rating, has to do with what Festinger (1957) called 'cognitive dissonance' a construct that helps describe how individuals interpret behaviours. It is the postulation of the theory that individuals judge their actions based on their intentions while they judge others by what they expect should be a behaviour-appropriate script. This section will also help to establish the internal validity of the scale, that is, where the individual's self-evaluation correlate positively with the other segments of the scale, the individual is adjudged as standing high on the social scale rating and vice versa if the opposite is the case.

**The analytic strength of the test (Test Reliability)**
To ascertain the psychometric properties of the sociability scale, a pilot study was carried out on a randomly selected 60 (male (35) and female (25) university undergraduates with a mean age of 21. The instrument was checked for error variance of time and a four week test retest procedure returned a correlation coefficient of r = 0.76 which was high enough to support consistency. Also in checking for error variance of content, an alternate form reliability procedure produced a correlation coefficient of r = 0.86 which was equally high enough to support consistency. In checking for error variance of homogeneity, an alternate form reliability procedure produced a correlation coefficient of r = 0.87 equally high enough to support homogeneity of content.

**Test Validity**

For validity check, a test that purports to measure social profile should be able to discriminate between social deviants (who are legally being punished for offences ranging from rape, public fight, thuggery etc.) as are found in the penitentiary (prison in Nigeria) and the ordinary students who have submitted themselves to academic training in a Nigerian University. Drawing participants from each of these two groups, a pilot study was conducted in which case the same questionnaire was presented to the two groups. The result yielded a low correlation on the sociability scale ( r = 0.25) thus indicating a discriminatory value between the two types of participants. Prisoners

from Ilesa prison whose age range corresponds to a University year age (approx. 17 – 28 years) were used. The researcher translated some of the question items where language became a barrier to the prisoners. This method was complemented by the learned opinion of experts from related fields in the social sciences and mental health faculty who assessed the instrument for validity. A thorough item analysis of the test items was equally carried out.

**SCORING:** Scoring method was given ample attention in the manual for the scale. It should be noted that scoring accuracy underscores the very essence of a scientific analysis, hence users are required to rely heavily on the manual to follow scoring techniques.

**4.** The fourth test instrument is named **Self Disclosure Attribute Scale** with the acronym **SDA**. Self-disclosure, according to Barry (2006), is both the conscious and unconscious act of revealing more about ourselves to others. This may include but is not limited to thoughts, feelings, aspirations, goals, failures, successes, fears, dreams as well as our likes, dislikes, and favorites. Many people attempt to avoid "self-disclosing" in quantum to co-workers, or when dating, for example, for fear of being judged negatively by others. Typically a self-disclosure is done when we initially meet someone and as we continue to build and develop our relationships with people. As we get to know each other we self-disclose things. If one person is not willing to "self-disclose" then the other person may stop disclosing information about self also.

In a counseling session, the patient or client does the "self-disclosing" while the counselor, or therapist listens. Their role is to help the client see things from different angles. This allows the client to see and evaluate options he or she may not have thought about, which may give the client more power when making important life decisions. There are several relationship perspectives in self-disclosing information in counseling sessions. That of patient to therapist, therapist to patient, supervisor to supervisee, and supervisee to supervisor. Each of these relationships affects the tendency to disclose personal information. The clinical space available for patients to disclose should be far broader than that of the therapist.

Self-disclosure is an important building block for intimacy, intimacy cannot be achieved without it. We expect self-disclosure to be reciprocal and dispensed in appropriate measure. Self-disclosure can be assessed on an analysis of cost and rewards which can be further explained by social exchange theory. Most self-disclosures usually occur early in relational development, but more intimate self-disclosure occur later. Male and female differences in self-disclosure are mixed. Women self-disclose to enhance a relationship whereas men self-disclose to justify why he has to be in control and avoid vulnerability. Men initially disclose more in heterosexual relationships while women tend to put more emphasis on intimate communication with same sex friends than many men do.

## Rationale for Item Development
Self-disclosure attribute has to do with the kind of intimate life experience, which we often share with close and trusted friends. According to Archer (1980), and Smith & Mackie (1995), when people are entrusted with a self-disclosure, the norm of reciprocity prescribes that they should respond in kind. For example when someone describes sad personal experiences to you, you might recount similar events from your own life. For this reason, self-disclosure, like rewards, are often exchanged in a relationship as people try to maintain equity, or balance. Self-disclosure also brings other benefits, which are not just self-validation into a relationship; it helps to coordinate friendly interactions when each partner knows something of the others' abilities and preferences. And deeper mutual understanding allows each partner meet the other's needs more easily.

It is often said that a problem shared is a problem half solved, it could be conjectured that the psychological essence of this saying lies in the assumption that when problems are disclosed to another person, an avenue is thus created to sample the other person's opinion so as to have access to a superior reasoning, to have one's own judgment reviewed, as a result of which it may be confirmed, reshaped or disconfirmed, but ultimately guarantees access to a sympathetic heart. In short, when problems are disclosed, a heart is unburdened in the

sense that by the fact of the disclosure, another person has been co-opted into sharing in the responsibility imposed by the problem in the first place.

Self-disclosure has for time immemorial been a potent interpersonal tool that facilitates friendship, penitence, reconciliation after a misunderstanding, confidentiality and trust, depending on the type of problems disclosed (depth), and the type of the significant other the person find convenient to disclose to (breadth i.e. how many people are privy to the problem). The two biblical thieves on the cross disclosed their identity and confessed their sins, one doing so with arrogance, while the other did so with penitence. Jesus' reaction to the two thieves pointed attention to the importance of the manner with which a problem is disclosed. The catholic religion has emphasized confession (another name for self-disclosure) as a required bold step towards the quest for salvation and regeneration. Criminals have become state witnesses with light penalties for their offences after having self-disclosed to prosecuting authorities. Marital bonds have been strengthened or weakened depending on the level to which both parties are ready to self-disclose. Judging from the foregoing, it suffices to say that the success of a counselling/psychotherapy encounter is determined by the extent to which the counsellor/psychotherapist can encourage his client to self-disclose. Sigmund Freud (1856 – 1939) called it catharsis, while Carl Rogers (1902 – 1987) called it unconditional positive self-regard. For these reasons self-disclosure attributes need be fostered if norm compatible personality is to be nurtured, being the nexus that connects the functionality of the test instrument.

## Test Description.

The scale is structured into four complementary parts that are essentially designed to measure;

1.      Breadth of disclosure pattern i.e., the significant-other/s mostly identified with when the need to self-disclose arises.

ii.     Respondents' self-assessment on family ties attitudinal scale.

iii.    Identification of self-disclosure prompts i.e., the motive/s that instigate/s self-disclosure

iv.     Depth (issue labels) of what respondent is willing to disclose

Breath of disclosure pattern describes an apparent flexibility in one's readiness to disclose across situations and to varied individual participants in any given social encounter. The tendency to freely disclose across situations is considered a good measure of a person's social adaptation, an attribute which supports a good social standing. This attribute is measured by this scale. Also, depth of disclosure describes the level of importance attached to a piece of information about oneself which a person is ready to confide in another person. This attribute is located outside of the social context to which breadth of disclosure belongs. Depth of disclosure suggests outright inclination to subordinate one's fears about life and death, (in the case of medical disclosure), freedom or incarceration, (in the case of legal tussle), fidelity or infidelity (in the case of marital conducts), admission or non-admission of image-damaging disclosures (in the case of greed-induced mistakes), to another person. This aspect of the scale can become quite handy to law enforcement agents, marriage counsellors, psychotherapists and personality profile researchers.

Section 2 of the test, also contains a 10 point scale designed essentially to cross validate respondent's self-disclosure points-person identified in section 1 of the scale. The section offers an opportunity to establish convergence validity rating of the scale. Section 3 of the test instrument is designed to assist the respondent locate the main reinforcer/s underlying his or her motive to self-disclose to the significant other earlier identified in section 1. It is commonly hypothesized that being confronted with the motive behind why we do what we do, has a therapeutic effect capable of leading us to re-evaluating the motive, with the intention to amending

or out rightly re-profiling it. This section therefore streamlines the self-assessment of respondents' motive for selecting the significant other/s to whom they self-disclose. Section 4 of the scale seeks to establish respondent's freedom to give personal opinion regarding what they think causes people to under-disclose. Volunteering opinions provides a psychological lee way for people to reveal the internal impulses that predispose them to choose behaviour scripts, which for fear of being stigmatized or given negative evaluation, would safely be hidden in deliberate misinformation. But the truth would be readily forthcoming when disguised as opinions.

## Analytic strength of the test instrument (Psychometric Property)

For standardization exercise, an inter item validity check was conducted to establish the content validity of the instrument. Scores obtained from a number of randomly selected participants (comprising mainly University undergraduates with a mean age of 20 years) for section 2, which comprises a cluster of self-assessment rating question items, were correlated with their scores in Section 1, which comprises a set of disclosure identification labels. These two sections have same subject matter but are designed contradistinctively to allow for the disguise that would act as a 'lie-catcher' which can be used to detect uncommitted respondent. It is therefore logically expected that whatever significant–other identified in section one would be rated high in section 2, which if otherwise, would expose a level of inconsistency capable of betraying a rather low validity rating. However, when the two sets of score were correlated, using the prescribed statistics, a considerably high correlation coefficient ($r = 0.78$) was obtained. This result was adjudged significant enough to justify a high validity rating of the test instrument. Likewise the score of anti self-disclosure respondents were correlated with those of the pro self-disclosure respondents, producing a correlation coefficient of ($r = 0.28$), low enough to justify discrepant validity rating. These two taken in context, thus guarantee the validity of the instrument.

The reliability of the instrument was tested by checking for the error variance of time. The administration of the instrument was repeated on the same set of respondents after an interval of four weeks and a significantly high correlation coefficient ($r = 0.70$) was obtained

when the scores from the two tests were correlated, thus attesting to a high reliability rating of the test. Scoring and computational procedures were well articulated in the test manual.

**5.** The fifth test instrument is named **Group Preference Inventory** with the acronym **GPI.**

## Rationale for Item Development

Groups are often formed as a result of conscious planning that is directed at harnessing the collective input of group members to achieve a defined goal. Such group as this are often referred to as formal groups, in which profits and deficits alike are collectively shared based on the principle of prearranged equity percentage. A formal group is therefore governed by a body of rules and regulations in which all group activities find reference. An informal group, on the other hand, depends on a strong interest pull for its formation. The interests are diverse in nature, spanning sport, socials, commuting etc. However, as soon as the need created by the interest is assuaged, the group is automatically and naturally disbanded. This description is true of football fans who disperse to their various abode after watching their favorite teams engage in a football match, or a group of commuters who go their different ways after arriving at their commuting destination.

Many groups are formed based on strong religious or cultural tenets. The beliefs these groups hold have a finality about them that becomes inextricably linked in participants' minds. The concepts become both truth and reason, and eventually the individuals in the group no longer question anything related to these beliefs; they simply accept them without question. Group members will sometimes reach a point where they will do anything to defend the ideas held as unquestionable. Belonging to a religious group is often a positive, uplifting thing that enhances a person's lifestyle rather than inhibiting it. However, the line can be easily crossed where obsession with practices or beliefs of a religious sect can become destructive (this is reminiscent of Nigerias Boko Haram sect). Terrorist groups typically

start out as nothing more than a welcoming collection of individuals who have similar beliefs concerning the world and a higher power. Group psychology concerning terrorists has uncovered an unbreakable bond to ideas that seem crazy to ordinary people, but to the group members who have spent so long attempting to ingratiate certain beliefs into their lifestyle, there is nothing at all abnormal about them.

Individual members of groups give up their individuality for the purposes of the group. A collective identity is assumed rather than individual personas, which becomes unhealthy. A group psychologist therefore looks at the socio-cultural context in which the group operates to determine the extent to which each person can be held accountable for his actions or inactions. The convergence theory as applied to group psychology is that the behavior of the group takes on focus and form based on the input of the individuals who make up the group. Within the framework of this type of group psychology, persons who wish to become part of the existing group will make a choice to identify with the prevailing mindset. In some cases, this may mean minimizing or abandoning behaviors or beliefs that are not in harmony with the majority.

In the prevailing social circumstances of the global community of today, it is common place to have issues of cultism, gangsterism, cartels of various types, church and mosque fellowship addictions and so many other such groupings with strong concentric pull, to grapple with. Being able to accurately analyze the background reasons why an individual is attracted to a group of choice would help a great deal to determine the mindset of clients who may need to undergo counselling or psychotherapy sessions for a required sensitization or de-sensitization, as the case may be, in the intervention programs designed to curb excess or boost deficit behaviours that may arise from group indoctrination. Herein lies the instrumental relevance of this test.

## Test Description

The test has four different sections, and each focuses on the different

dimensions of probable reasons why individuals may be prompted to have joined or would want to join a, any group. These are;

**Section A: Biodata.** Question items in this section are designed to provide data about the client's name, gender, age, marital status, academic status, date of birth, occupation, nationality, ethnic group, local government area, weight and height. These data, when collected, are useful as base data for establishing independent group dichotomies in survey,

comparative, correlational and experimental measures. For example chronological age can be graded into developmental attribute variation and measured to establish differences or similarities in construct variability. Measures on 'Nationality' will also be suitable for establishing cross-cultural criteria etc.

### Section B: Group Type Verification:

Listed in this section are twenty three (23) group types. The user is required to rank his preferences for each type in a way that will reflect priority scaling. e.g. $1^{st}$ for the highest preferred group and 23rd for the least preferred group. The ranking, if properly done, will provide an ample opportunity for the user to identify the choice group of the client. Whatever this choice may be will later be interpreted in conjunction with the reason/s proffered by the client for his choice.

### Section C: Motivation for Group Preference

Here, the client is expected to rate only **ten** reasons (the highest five and the lowest five) why s/he has joined or will join the groups s/he assigned the highest ranking of $1^{st}$ to $5^{th}$ in the section 2 of this instrument, just as s/he will do for the groups s/he assigned the least ranking of $18^{th}$ to 23rd· S/he will rate the reasons suggested from 1 – 10. 1(being the lowest point), indicates that whatever reason suggested hardly holds true for him or her, while a score of 10 indicates a high degree of correspondence between why s/he joined or will join groups and the reasons suggested, on the other hand, a rating of ten would indicate the most likely reason why s/he will not join a group in the 'least preferred segment' i.e. numbers 18 through 23.

The numbers range from 1 – 10 with 5 being the average. Those numbers higher than 5 stand for 'above average' agreement while those lower than 5 express 'below average' agreement with the reason suggested. The background intention is to have a clear picture of the bipolar reasons (i.e. the most and least preferred reasons) responsible for the user's choice of motivations for joining a group. Depending on the situation, whatever reasons indicated for the two extremes can safely be interpreted using relevant psychological prompts to determine personality typologies and/or motivations underlying the script selection procedures which inform behaviour.

## Section D.  Group Membership ideals

This section approaches the issue of group preference from an impersonal angle, in which case, the client's opinion about what reason/s should be considered ideal for prompting group preference is sampled. For example, while the reasons proffered by the client for the preceding section C question items may have been warranted by the unusual circumstances that characterize his/her situation, which may have produced for him/her an imperative that would induce a unique experience not likely to be true for everybody, this section is designed to provide the client the opportunity to reflect the essentials that s/he thinks ideally ought to govern group preference. For this reason, the user will be required, again, to rate the suggestions listed using the same method that apply in section C.

Where the reasons indicated in section D do not correspond with what was reflected in section C, the user would have been given the ample opportunity to establish a ground for either counselling or psychotherapy, or if for a research purpose, a good hypothetical basis. On the other hand, a high degree of correspondence between the reasons picked for both C and D sections would indicate a high validity rating of the client's claims.

## Research Use

Researches are conducted for various reasons, which include but not limited to the need to acquire knowledge for knowledge sake, to

replicate an earlier research methodology in a cross cultural dimension, to test the applicability of a theory to contemporary realities or to fulfil an academic obligation. This test parades the qualities that would recommend it for a research use of any hue. For example, the need may arise for a haunch to be tested, in which case a scholar may experience a strong urge to investigate into why some individuals appear forever attracted to certain group of people and abhor the company of others, this test would come handy to provide relevant data whose proper interpretation would in turn produce the required answer. This test was tested for validity of content and was found of good quality, hence when deployed to replicate any study of similar content and purpose; it should yield a high degree of correspondence and produce a contradistinctive result when matched against a test of divergent objective.

Theories are proposed in quantum to variously provide avenues for situating constructs that frequently feature in human behavioral dispositions such as those of greed, power, sociability, achievement, competitiveness, cooperativeness, instrumentality etc. These constructs catharsize the formation of various groups where their essences are inexorably espoused. The test is designed to assist the user categorize respondents into their group preference moulds.

## Counselling/Psychotherapy Use:

Counselling is undertaken when a situation is contrived in which a working relationship is created where a client is assisted by the behavior-expert (counselor or psychotherapist) to explore and manage what is happening in his/her life. What happens in one's life that may need to be managed include when a person's personality type does not fully permit him/her to gainfully exploit his/her environment. In which case, the environment would not produce for the individual enough perks that could motivate in him/her the continuous enactment of a resourceful behavior, thus, making him/her exhibit one of deficit or excess behavior, both of which are not desirable. The test can help determine whether such environmental challenges derive from the type of human environment the client operates in, which does not exclude the type of group s/he belongs and what effect the

group wields on him/her, or the psychological environment which takes into cognizance the status rating of the individual in his group. The test offers the counselor/psychotherapist the preliminary advantage of identifying and isolating for treatment the source factor, which in this case, may be the client's response to negative group obligations.

## Test Instrument's analytic strength (Psychometric property)

**Reliability:** the inventory possesses the accuracy required to produce a fairly similar result when assigned for use at time intervals, a pilot study (comprising 64 participants N = 64, 33M, 31F, Age Mean = 26, S.D = 1.62) was conducted four weeks apart using the same samples to ensure external reliability. Efforts were made to ensure that test conditions remain the same. When the scores generated at the two instances of test administration were interpreted using the relevant statistics, a significantly positive relationship was established (r = 0.7.) To establish the internal reliability, the split half reliability test was conducted on the scores of randomly sampled scores the reliability coefficient obtained reflected a significantly positive correlation between the two sets of scores (r = .83)

**Validity:** Conventional wisdom suggests that a test that is designed to assess individuals on the basis of their group preference and motivation need be able to fairly predict that individuals who score high on the scale of introversion would be predisposed to identifying with cooperative rather than competitive group classification, based on the assumption that an introvert prefers less public exposure, an attribute that can be accommodated in cooperative group types. To test this hunch, Elegbeleye's (2008) Personality Scale was adopted as a criterion measure to determine the personality type of a selected group of participants (university undergraduates), laying emphasis on their personality status as it relates to introversion and extroversion attributes.The Group Preference Inventory (GPI) was administered on the two groups, after they have been labelled 'introversion' and 'extroversion' groups. The degree of congruence between each of the groups and their hypothesized group categories yielded significant results to justify a high validity rating (r = 0.87).

Even though the society does not subscribe to prostituting as a profession, some women still engage in it full time, claiming essentially, that the end justifies the means. That is, rather than steal, in a situation of unemployment, why not use what you have to acquire what you need, a logic that is strongly suggestive of 'instrumental' inclination. Using this as a background, a group of commercial sex workers (N=28, all female) were identified in their cluster in a hotel environment and were selectively given the inventory to fill. Their responses when analyzed, statistically located them in the instrumental group category at a group coefficient of r = 0.91. From the outcomes of the tests conducted in order to determine the validity rating of the instrument, it is discovered that the test rates highly on content and construct validity. Scoring and computation method for users are well espoused in the test manual.

6. The sixth test instrument is tagged **Work Value Scale** with the acronym **WVS**. The scale was designed to measure values that motivate good work ethics.

## Rationale for Test Development

Work value defines the attributes inherent in a given job that helps enhance the self-esteem of an employee. Attributes, which may be intrinsic or extrinsic, that the worker closely identifies with, and without which his/her self-esteem may suffer. Where a job, of whatever hue, does not guarantee self-esteem compliant attribute for the worker, s/he may seek every available avenue to bring back to equilibrium the disequilibrated self-esteem. Options available to the employee to redress the disequilibrium may include, but not limited, to change of job for another that possesses in good measure the desired attribute or deliberate engagement in increased union participation directed at pressuring the organization to make the desired attribute a policy imperative.

It is important to note that it is the occupation a person engages in that gives him an identity. Since most healthy individuals are naturally expected to actively engage in an occupation for between 35 to 50 years of their life, it stands to logic, therefore, to assume that

one's occupation gives colouration to his/her life. The degree of congruence that exists between the individual's needs and his/her occupation's need-satisfier capabilities determines the quality of his/her life and the esteem profile attached thereto. Pursuing this line of thought would further permit the deduction that a person's wellbeing-ness and the attendant positive behavioural dispositions are all a function of the person's ability to carefully identify his value priorities and secure a job that promotes them. In essence, if occupational engagement is a central tool for the criterion assessment of a person's wellbeing-ness, a scale designed to assist the individual identify his/her value priorities is expedient.

## Test Description

The following ten value fields were adjudged as fairly covering vital areas that can describe the value pool of a contemporary worker. The fields are; **intellectual/theoretical, social, prestige, security, economic/material, achievement, artistic/creative, power/ leadership, humanitarian, and independent values**

**Intellectual/ theoretical Value**: This describes a work value that is largely knowledge based. The individual that has a high value rating in this field usually engages self in the pursuit of knowledge, truth and understanding. S/he does this often for pure knowledge sake and sometimes to assuage fires of curiosity burning in his brain. S/he believes that there are many angles to any given issue, hence all assertions, whether theoretical or hypothetical, could further be investigated. Such individual as this often gets involved in debates over issues that are considered by others as closed and settled, and he prefers to work in an environment where knowledge is imparted and researches are frequently carried out, such as institutions of learning and research institutes. His ultimate life ambition is to be regarded as a person of high intellectual prowess or as one who is an acknowledged 'expert' in a given field of knowledge.

**Social Value:** is a work field that will offer a perfect fit in terms of value/work congruence for an individual who sets stock by the level of freedom available to him/her to interact with others. S/he relishes

public contacts that would provide for the opportunity to have a lot of day-to-day contact with people in visible settings. The individual must have close working relationships with a group that will work as a team toward achieving common goals. Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are co-workers, moral values and social service.

**Prestige Value:** This work value is best obtained in a work environment where achievement is recognized, respected and remunerated. There must be opportunity for advancement, potential for leadership, and work responsibilities which are not strictly tied to time schedules. A degree of independence that would allow the individual determines the nature of his/her work without a significant direction from others. The job must also provide opportunity for exercise of power and authority which will allow for control of the work activities or some aspect of the destinies of other people. Corresponding needs are advancement, authority, recognition and social status.

**Security Value:** The occupation that offers this value provides a high probability that one will remain employed for a length of time, be remunerated well enough to allow for needs in the area of shelter, general upkeep and retirement safeguards to be satisfied. Opportunity for periodic updated training is equally ensured. The occupation will make provisions for several other perks that will not leave out medical buffers, financially covered leave holidays and severance remuneration. Corresponding needs include assurance against sudden retrenchment, unanticipated merger, or bankruptcy.

**Economic/Material Value:** This is a work field that guarantees adequate pay that can be deployed for material acquisition. Allied with good pay are opportunities for a 'V' shaped advancement advantages that bring with them increased perquisites. Identifying and procuring comfort inducing perks, such as cars, computers, and well-furnished offices, for the free use of employees, come as part of the value package of this occupational type. Corresponding needs are

activity, compensation, variety and favourable working conditions.

**Achievement Value:** is a work value that rates success in assigned tasks very high. The occupations that satisfy this work value are result oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. The occupation must clearly demarcate designations in a manner that would enable a worker to be identified with a work component and be recognized for positive input into the component. In such occupation, less emphasis is placed on team work. Corresponding needs are ability utilization and achievement.

**Artistic/Creative Value:** This work field provides ample opportunity for employees to make use of their imaginative capabilities to create ideas in the abstract and transform them into logical masterpieces by which problems associated with the creative objective are more easily solved. It also stimulates opportunities for workers to participate in studying the art of paying attention to details, no matter how inconsequential they might appear. The work environment must be such that permit workers to operate in their own world where little disturbance is entertained. Corresponding needs are independence, quiet environment and little criticism.

**Power/Leadership Value:** This work field creates the atmosphere for employees to be in a position to influence the attitudes or opinions of other people. The work environment must be compartmentalized in an organic manner as to provide for the existence of several parallel leadership points that would function as a horizontal organizational network, as opposed to a mechanistic outlook in which the flow of authority is only vertical and concentric (top to bottom). Corresponding needs are opportunity for growth, assignment of responsibility and independence.

**Humanitarian Value:** This is a work value that puts emphasis on altruistic intervention where a need is spotted. Ample opportunity is created for employees to be involved in helping other people in a direct way either individually or in small groups. Work environment

must be able to stimulate in workers the sensibility that they are contributing something to the betterment of the world they live in. Corresponding needs are; team spirit, feedback and information.

**Independent Values:** This is a work field where space for independent work input is provided. The work environment institutes projects that would be assigned to individual workers to execute without any significant amount of contact with others. Work overlap is deemphasized in favour of job specification. Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are creativity, responsibility and autonomy.

## Counselling/Psychotherapy Use of this Inventory

The results of a work value inventory are to identify appropriate career choices, by matching an individual's work values with characteristics of occupations. A work value inventory of this kind is best used in conjunction with other self-assessment instruments that help identify one's personality, interests and skills. Identifying your personal values is an important part of a successful career plan. In this context, the word "value" refers to how you feel about the work itself and the contribution it makes to society. Most people who pursue work that is congruent with their values feel satisfied and successful in their careers. This instrument will be a useful predictive material for an individual who requires help to determine what his/her value priorities are particularly when about to make a choice of what course to offer in the university, or when thinking of the need to professionalize in any work field.

A professional user (Counsellor/psychotherapist) can put the instrument to good use when s/he administers it as a preliminary instrument by which s/he will gain an informed insight into the personality profile of a client, with the aim of identifying the cues s/he will respond to and will sustain his/her interest in the work place. Work organizations are often confronted with the need to assign designation to workers (placement) after they are recruited. The

exercise comes with its own inherent problems as wrong placement may hamper the effective utilisation of the workers capacities hence robbing the organization of the highly desirable optimization of resources available to it. The effective deployment of this instrument would assist an organizational expert to overcome such placement problems. At the level of performance evaluation, a human resource manager would find the instrument handy as its use will help him to clearly identify the fit or congruence between a worker's job designation and his work value priorities. Being able to determine such congruence would further help him allocate the appropriate reinforcers, where this is necessary, to foster in the worker, more job commitment, or initiate outright redeployment of the worker to other work department of better fit.

A proper job analysis does always provide for the Management of work organizations what a given job requires for it to be done effectively in a result oriented manner, particularly in terms of the intellectual content and the technical requirements that would make the job achieve stated goals. So long as it is the human person that drives work implementation, his intellectual capacity, affective disposition, and behavioural inclination would be under critical ' consideration where there is a work objective to be achieved. For the foregoing reason, this instrument becomes very useful during organizational selection exercise and the required job analysis that precedes it. Also, where a worker displays visible signs of discontent and underperformance, this instrument will help establish the baseline inconsistencies that are producing the job dysfunction in the psychotherapy sessions expected to be instituted by the psychotherapist to find solution to the challenges.

## Research Use

Most researches carried out in the field of psychology are directed at describing, predicting and prescribing human behaviour. Human behaviour being the primary concern of psychologists needs to be described in quantifiable ways for easy assessment exercise. For example; a behavioural enactment may be described as manifesting

deficit outcomes where optimal behaviour is hampered as a result of the individual's spontaneous response to environmentally produced cues that are extraneous to the proper emission of the desired behaviour. In the case of shyness, consideration for negative evaluation from the outer world outweighs the individual's ability to harness the innate social skill, often required to propel desired behavioural emission. Normal behaviours are expected to be reinforced in order to ensure sustainability, just as excess behaviours are to be desensitised for behavioural equilibrium to be restored. This instrument can be best deployed as a preliminary investigative instrument that could help describe which job related behaviour is exhibited in deficit, normal or excess.

A predictive research usually bases its study design (survey-(longitudinal/cross-sectional), correlational–(relationships: positive/negative), comparative–(similarities/differences), and experimental–(cause/effect relationship) on hypothetical foundations, in which case tentative statements are made before the hypotheses are tested and confirmed or disconfirmed after the conclusion of testing procedures. This instrument would be most useful in testing, for example; the work value orientation of male/female workers from different geographical locations, ethnic origins, between married and single workers etc. Also a scientifically arrived at behavioural prescription is usually based on painstaking empirical research activities which are capable of throwing up the most appropriate situation–specific behaviours. This instrument can help establish a linkage between the work value orientations that would be appropriate to drive different types of job specifications.

## Analytic strength of the test instrument (Psychometric Property of the test)

### Reliability

Test reliability describes a test quality that manifests in its ability to evoke a fairly similar response from the same set of participants when administered over time. This inventory possesses the accuracy required to produce a fairly similar result when assigned for use at

deficit outcomes where optimal behaviour is hampered as a result of the individual's spontaneous response to environmentally produced cues that are extraneous to the proper emission of the desired behaviour. In the case of shyness, consideration for negative evaluation from the outer world outweighs the individual's ability to harness the innate social skill, often required to propel desired behavioural emission. Normal behaviours are expected to be reinforced in order to ensure sustainability, just as excess behaviours are to be desensitised for behavioural equilibrium to be restored. This instrument can be best deployed as a preliminary investigative instrument that could help describe which job related behaviour is exhibited in deficit, normal or excess.

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### Reliability

Test reliability describes a test quality that manifests in its ability to evoke a fairly similar response from the same set of participants when administered over time. This inventory possesses the accuracy required to produce a fairly similar result when assigned for use at

time intervals, a pilot study (comprising 86 participants N = 86, 44M, 42F, Age Mean = 24, S.D = 1.44) was conducted five weeks apart using the same samples to ensure external reliability. Efforts were made to ensure that test conditions remain the same. When the scores generated at the two instances of test administration were interpreted using the relevant statistics, a significantly positive relationship was established (r = 0.82). To establish internal reliability, the split half reliability was conducted on the scores of randomly selected participants drawn from the earlier pool. The reliability coefficient obtained was high when the two halves of their scores were correlated (r = 0 .83)

## Validity

To ensure that this test focuses entirely on the subject matter that constitutes its primary purpose of measuring the work value profile of users, a test of similar subject matter (Group Preference Inventory referred to above) was adopted as an appropriate test that is similar in content. This test (WVS), together with the GPI were administered on a group of (150) participants. As a background information, the Group Preference Inventory (GPI) measures the background reason responsible for why people join or would join the group of their most preferred choice. The test (GPI) presents an array of statements regarding the preference profile of respondents regarding their group of choice. By completing this test, the user will be privileged to fairly predict the personality description of the respondent/client. Work Value Scale (WVS) is a test designed to predict the personality description of respondents/users via their work value choice. It is expected that whatever result returned by respondents on the two similar tests should rate high on concordance. It is not surprising when the outcome of the administration of the two tests (GPI and WVS) produced a positively high correlation coefficient (r = 0.88). This result attests to both the concurrent and predictive validity of this test.

To further ensure that this test fulfils the criterion of construct validity, it was administered on two parallel groups; teachers and nurses, on the one hand and bankers and entrepreneurs on the other.

These groups were defined with the following value attributes ;

**A teacher:** describes a person who takes delight (professionalises) in imparting knowledge to others (humanitarian work value)

**A nurse:** describes somebody trained to look after sick or injured people, especially somebody who works in a hospital or clinic, administering the care and treatment that a doctor prescribes (humanitarian work value)

**An entrepreneur:** describes a risk taking business person who initiates or finances new commercial enterprises (economic/material work value)

**A banker:** describes a person who owns or is an employee of a bank and helps people watch over their money (economic/material work value)

Guided by the above value descriptions, the hypothesis was formulated that the scores of teachers and nurses will be positively correlated when tested on their work value preference for humanitarian work value. This hypothesis was tested in a pilot study that made use of 55 (36M, 19F) secondary school teachers and 42 (37F, 5M) nurses as participants. The statistics deployed for interpreting the scores yielded a significantly high correlation between the scores of the two groups ($r = 0.89$). This test was also administered on 22 entrepreneurs and 30 bankers on the hypothesis that their scores will be positively correlated when measured on economic/material work value orientation. The result revealed $r = 0.85$ correlation coefficient. The scores of each group attest to adequate construct validity of this test.

Similar to the tests earlier reviewed, ample attention was given to the scoring procedure in the test manual for this scale.

7. The last but equally effective test instrument in the stable of this scholar is named

**Spousal Compatibility Rating Scale** with the acronym **SCRS**. The scale is designed essentially to measure the degree of compatibility among spouses (as the name suggests) who have consummated their relationship or those who are in the process of doing so. The relevance of this kind of scale is underscored by the spate of disharmonious intimate relationships, which does not exclude the marriage institution, as we have it today.

**Rationale for item development:** The modern concept of marriage describes a legalised union between a man and a woman who are of diverse backgrounds, and according to the terms of the union, are bound under civil or religious oath to keep to certain ethics that would, for as long as the marriage lasts, presumably for life, govern their conducts in terms of what is invested and what is to be expected. However, if we decide to include the instance of the ultra-modern development in the marriage institution, the clause, 'between man and woman' would give way to 'between two individuals'. This is to accommodate the marriage rights granted gays (homosexuals) in some Western countries, especially in some states in the USA. Another definition of marriage contends that marriage is a social union or legal contract between people based on mutual consent. This definition goes further to state that it is an institution in which interpersonal relationships, usually intimate and sexual, are acknowledged in a variety of ways, depending on the culture or subculture in which it is found. Such a union, it concludes, is often formalized via a wedding ceremony, which sometimes may also be called matrimony.

The above definitions in which the following key words stand out; 'union' 'two individuals' 'legal', describe a practice recognised and subscribed to, right from the dawn of times, by all cultures. Natural procreative logic recommends it, while communal harmony suggests strongly that it be regularised in order to forestall social disharmony. Marital practices have therefore been institutionalised to a level where it has become the basis for structuring and restructuring, as the case may be, the social health required to smoothen social synergy in modern societies. The marriage institution has not escaped attention

from diverse areas of human concerns especially the religious circle, hence, normalcy, though subjective, in the marriage institution at times constitute the parameter by which religious clerics of different hues use as a barometer to measure the level of societal moral rectitude. The poor health of the marriage institution has been cited on occasions as justification for jihads, just as it is equally interesting to note that marital fidelity featured significantly in the ministries of both Jesus Christ and the Apostle Paul. It therefore speaks to rational etiquette that an issue that centres around a usually emotive relationship between human entities could not escape the primal attention of psychology as a formalised course of study that tends to put into perspective all angles necessary to understand human behaviour.

Flowing from the above therefore is the reason why constructs like 'interpersonal relationship', 'social interaction pattern' and 'social accessibility' command a pride of place in social psychology curriculum. It is a well-accepted understanding that where a healthy union exists between a man and a woman, the ultimate outcome should be a formalised union, expected usually, to produce offspring by which the human society can recreate itself and achieve continuity and sustenance. People marry for many reasons, including one or more of the following: legal, social, libidinal, emotional, economic, spiritual, and religious. These might include arranged marriages, family obligations, the legal establishment of a nuclear family unit, the legal protection of children and public declaration of commitment etc. The act of marriage usually creates normative or legal obligations between the individuals involved. In some societies these obligations also extend to certain family members of the married persons. Some cultures allow the dissolution of marriage through divorce or annulment. Marriage is usually recognized by the state, a religious authority, or both. It is often viewed as a contract. Civil marriage is the legal concept of marriage as a governmental institution irrespective of religious affiliation, in accordance with marriage laws of the jurisdiction

**Spousal Compatibility**: Personality compatibility in marriage is all

about a couple's ability to stand in the marriage and be true to their vows in spite of years of being together. These vows usually include 'to love', 'to care', 'to be loyal' etc. The usual assumption about how compatibility can be fostered between two spouses is predicated on the fact that a fair degree of similarities in key behavioural attributes considered essential for mutual harmony must exist. This assumption sounds logical but may definitely not be the rule when the issue of compatibility is x-rayed. There is also a brand of conventional wisdom that insists that "Opposites do attract", whereas this assumption is salient to a degree, it does not entirely describe the mantra that would unarguably situate a compatibility continuum in a 'spousal relationship. A seeming conundrum as this may appear may find explanation in situational contingencies that can only be captured by research enquiries, which this scale is expected to stimulate. However the truth is that while in reality opposites do attract, it also can turn out to be a veritable source of distraction in intimate/conjugal relationships, depending on several personological factors. Also, similarities in attributional endowment, no doubt, can encourage compatibility between couples just as it can foster boredom, repulsion and dislike. Again, this depends on several variables associated with the human, the physical, the psychological and the contingency environments. A painstaking deployment of this test instrument will turn out new evidences whose congruence with contemporary realities stands a good chance of galvanising a building block of fresh knowledge enterprise.

The following examples clearly illustrate the non – absolute nature of the compatibility assumptions. For example, the question may be asked whether the man is an extrovert and the woman an introvert. This definitely suggests opposites. It may also happen that the male spouse is so focused on the outside world and gets pleasure when dealing with others, the resources and people around him, while the female spouse is immersed in her own world, all focused on her ideologies and viewpoints in life. This scenario can be advanced in support of the fact that compatibility issues in a relationship as described above can no longer define this type of couple. However, ironic as it may seem, these are mostly the ones who click. It may be

hard to shift from being introvert to extrovert and the other way around but this can be achievable if potent psychological factors are introduced that are capable of fertilizing the seeming parched land of the relationship. This test instrument promises the required clinical efficacy likely to turn things around given similar encounter.

Exploring further, the question may be asked whether she is more of the emotional type and he the thinking logical type. It is often stereotyped that wives are the ones who are more emotional when it comes to dealing with just about anything. On the other hand, husbands are the ones who are expected to base their entire decision making profile on fact filled information. There are times when it goes the other way however, the nature of women as delicate beings makes them fit perfectly in the former. It is true to life also that there are times in an intimate relationship when feelings seem to be of greater requirement than thinking. Therefore, compatibility issues are best assessed on a case to case basis.

## Test Description, Rationale, and Use

The test's frame work was structured on a ten parameters which cover the following constructs; affiliativeness, need for power, need for achievement, sociability, belief system, world view, accessibility, family blueprint, expressiveness, and philanthropy. These constructs are adjudged as fairly representative of the psychological underpinnings of a typical intimate relationship, hence their being adopted as the main criteria of assessment in this test. The concepts are explained as follows;

**Affiliativeness** is a person's readiness to connect with people in an unforced manner that is characterised by warmth and more often than not, likely to encourage friendship and intimacy. There are three phases to human personality evaluation which are; how he sees himself, how other people see him, and how he truly is. Of the three dimensions, how he sees himself outweighs the others because most social activities engaged in by a person source from how s/he perceives himself/herself. This is evident in the difference noticeable

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between the bliss that attends the mien of those people with a positive self-concept and the confusion that marks the outlook of the people with low self-concept or self-esteem. Those with self-confidence have been found to speak up in groups. To have confidence in their judgment and their chances of success than those with low self-esteem. Self-esteem itself belongs to self-theory which makes the individual a dynamic force in social interaction, particularly when s/he feels s/he can cope and a reticent unsecured entity when s/he is in doubt of his/her ability. Therefore, to be high on the affiliativeness scale is to enjoy an appreciable attribute of positive self-esteem.

**Need for power (N-Pow)** is a term that was coined and popularized by the renowned psychologist, David McClelland, in 1961. McClellend's thinking was influenced by the pioneering work of Henry Murray who first identified underlying psychological human needs and motivational processes (1938). In McClelland's book The Achieving Society N-Pow helps explain an individual's imperative to be in charge. According to his work, there are two kinds of power, social and personal. People who exhibit N-Pow tendencies are most satisfied by seeing their environment move in a certain direction, due to their involvements. Sex differences affect the way power motive is expressed. While men with more N-Pow show high levels of aggression, drink heavily, act in sexually exploitative manner, and participate in competitive sports, women channel their N-Pow in a seemingly more socially acceptable manner by veiling it under the guise of caring and being protective, but victims of its expression do often attest to the fact that it is expressed most times with the intensity that surpasses that of men.

**Need for Achievement (N-Ach)** refers to an individual's desire for significant accomplishment, mastering of skills, control, or high standards. The term was first used by Henry Murray who deployed it to cover a range of actions which include: "intense, prolonged and repeated efforts to accomplish something difficult. To work with singleness of purpose towards a high and distant goal. To have the determination to win". The concept of NAch was subsequently popularised also by the psychologist David McClelland. Need for

Achievement is related to the difficulty of tasks people choose to undertake. Those with low N-Ach may choose very easy tasks, in order to minimise risk of failure, or highly difficult tasks, such that a failure would not be embarrassing. Those with high N-Ach tend to choose moderately difficult tasks, feeling that they are challenging, but within reach. People high in N-Ach are characterised by a tendency to seek challenges and a high degree of independence. Their most satisfying reward is the recognition of their achievements.

**Sociability** describes the skill, tendency or property of being sociable or social, an attribute which is essentially expressed in being able to interact well with others. All social activities involve more than one person, and as many individuals as are involved operate on the understanding of an underlying equity sharing formula which recognises a give and take life line. Sociability issues are best understood when viewed from the background of the involvement of the other person or persons. This is when the central concern zeroes in on the degree of intimacy, self-disclosure inclination, conformity, compatibility, identification, acceptance etc. A social group therefore, is characterised by ties that are more cohesive than what one can ascribe to what binds those who accidentally find themselves on a bus, a shopping mall, or on a ring side. The person who is high on the sociability scale is defined by his preference for being in the company of other people most of the time, derives pleasure from attending social functions and loves to be admired, accepted and recommended by other people.

**Belief system** is a set of mutually supportive beliefs. The beliefs may be religious, philosophical, ideological or a combination of these. It can also be the actual set of precepts from which you live your daily life, those which govern your thoughts, words, and actions. Without these precepts you could not function. A belief system predisposes the individual to undertake certain decisions, adopt particular habits, self-indulge in behaviours that are considered consistent with the dictates of the belief profile. Most users of this test instrument would fall into one of the four categories that usually define belief system in this part of the world and indeed the world at large. These are;

christian, islamic, traditional, free thinking belief categories. There is a general consensus on the fact that the average African is given to subjective rather than the objective situational analysis of events, experiences and occurrences, hence the little development recorded in scientific ventures. For this reason belief driven behaviours determine to a great length the health of spousal relationships.

**World view** describes the horizon of one's experiences, particularly the ones that extend beyond the immediate locality. It has an intellectual dimension that subscribes to gender variations. It is the attribute of its gender sensitivity that recommends its inclusion as a criterion of assessment in this test. A person's world view has been adjudged as providing the undergird for behaviour dispositions that determine the level of investment in cultural practices, such as what you wear, which language you identify with in raising your children, how narrowly or globally you assess social, religious, political and economic issues. A world view also helps determine a person's self-assessment in terms of how much s/he is ready to give or not give, take or not take in a relationship. For these reasons it becomes a factor that can affect the compatibility rating of two individuals who exist in close proximity with one another

**Accessibility** is used in this context operationally to describe the degree to which one or the two spouses are ready to allow visitors, particularly members of their immediate and extended family, to share their social space. In the African setting, issues have been woven around what influence the mother in law, father in law, brother in law, sister in law, and friends to both spouses should and should not wield in a relationship described as intimate between two loving individuals, so much so, that disaffection and outright disbandment of relationships and marriages have resulted due to unsolicited interference from these outside strands of social web. Most often, the kind of mother in law or father in law that would be encountered in marriage has constituted a source of anxiety for would be wives and husbands. These factors recommend the expediency of a scale that would enable this class of people measure the variable in question so as to have an idea of what their marital future portends.

**Family blueprint** describes the actual behavioural dispositions that shape family settings regarding family size, child rearing pattern, mental attitude to what and how a family should look like e.g. West nuclear (where the wife and the husband plus their siblings are present), or African nuclear (which permits the accommodation of aged parents, cousins, nieces, and house helps beside the husband, wife and siblings). Compatibility where it exists between spouses rests on the iron frame of unforced agreement on what number of children to have, what kind of upbringing would be accorded to them, where to raise them, what kind of personality to foster in them etc. Extending beyond this is the actual interpersonal components such as the attitude to territorial command, where a spouse may need a lot of space and the other can manage with little, material consciousness (acquisitiveness) and tolerance i.e. the ability to easily accommodate the inadequacies of the other person/s. All of these factors are given consideration in the makeup of this test instrument

**Expressiveness** is the attribute of demonstrating either in word or action one's inner thoughts. This is an attribute that is consistent with extrovert behavioural dispositions in which the individual at all given opportunity backs utterances with discernible actions like gesticulations, hand movements, eye movement, body shaking or rapid eye blinking. The individuals predisposed to this attribute appear more convincing in their presentations than in their inner feelings. It is therefore not unusual for parents and friends to be surprised when told of a quarrel between an outwardly cheerful spouse and his/her partner. They do often wonder aloud by exclaiming that 'so those two, who appear always engrossed with one another, can actually quarrel!' Tactile demonstration of affection is not out of place in a relationship defined by intimacy and fondness, but so often has it been reported that aloofness and show of disinterest have colluded to undermine intimate spousal relationships. This background accounts for the inclusion of this segment in this test.

## Analytic strength of the test instrument (Psychometric Properties)

## Reliability

To establish the reliability rating of the test similar statistical methods as were employed in the case of previous tests were deployed. A pilot study was carried out making use of pilot participants who have earlier confessed to the fact that they are currently involved in an active intimate relationship with a spouse (Age range 25-45 years). The participants were purposively selected and encouraged to respond to the items in each of the subscales. The instrument was checked for error variance of time (so as to justify external reliability status) after a second administration of the test to the same group of participants four weeks apart. When the data generated by the two separate tests were computed using the relevant correlation coefficient statistics, a high correlation coefficient was obtained ($r = 0.81$). This result was considered high enough to support consistency. In checking for internal validity rating of the test, scores of the pilot participants for part A and part B subscales of the test, were compared and a high correlation coefficient ($r = 0.88$) was found. This result attests to a high degree of correspondence between the scores obtained from the two different parts of the same test, thus justifying the level of internal reliability that can equally be produced by the split half technique of ascertaining reliability coefficient.

## Validity

The test items contain constructs and cue words that were drawn from both the social and personality specialization fields of psychology. These words are expected to be recognisable to seasoned academics whose specialisations have been in the field of psychology and who have been full faculty members in the department of psychology for a minimum of ten years. 60 cue words were isolated and presented to 10 (M=7, F=3, Rank: 4 Professors, 2 Readers and 4 Senior Lecturers) academic members who fell into the category presented above. The 60 words contain 40 words drawn randomly from the cue words used in the items constituting the test, and mixed

with 20 other words drawn from the cognitive/clinical specialization field of psychology. This cue words were presented to the experts to identify, recognize and tick (√) which field of psychology they are mostly used. 90% of the ten experts were able to correctly recognize the entire cue words presented for both personality and social psychology fields as belonging to their rightful fields. This is taken as evidence in support of the content validity of this test.

Construct validity check is an effort in the direction of proving that the hypothetical constructs used actually do approximate the true meaning of the abstract constructs they are meant to represent. For example, one may wonder whether the word 'extroversion' truly captures a description in the direction of hyperactive, outspoken, and showy behaviour that it is meant to symbolize. To ascertain this therefore, it is expected that an average respondent who assesses self as outspoken and restless most of the times, by returning a high score for cue words depicting 'extroversion' would return lower scores for cue words suggesting positive assessment in the direction of 'introversion' which describes a recessive, unobtrusive but achievement-prone  individual. To check this out, an inter item correlation coefficient statistics was used to analyze the scores of pilot participant (N=50, M=28, F=22. Mean age 35) to a sampled part (part B) of the test. The correlation coefficient of the items presented attests to a high degree of construct validity rating of the test, for example, constructs like 'introversion' and 'extroversion', correlate negatively ($r = 0.26$), while 'openness to experience' correlate positively with 'agreeableness'($r = 0.84$). These construct relativity are supported by social norm expectation dynamics as emphasized in social psychology literature.

Standardization scores and scoring methods for the test are available in the test manual for the scale.

## Conclusion

My research activities focus essentially on the socio-educational aspect of Counselling, Social, and Personality Psychology with special emphasis on techniques of enhancing human personality development.  In this area, I have concentrated efforts on exploring

those institution-related (marriage, school, policy formulators etc.) psychological factors that are capable of militating against optimum human performance in assigned tasks. To achieve this, I have attempted to highlight the inherent aversive factors capable of inhibiting desirable behaviours. This is because if they are left unmanaged, the deficit or excess behaviours likely to arise there-from can work actively to impair behaviour development with the resultant effect of incapacitating optimal human functioning and therefore cause sustained personality related psychological illnesses, such as stress induced hypertension, low self-esteem, insomnia, sustained death wish, frustration, aggression, state of helplessness, and an onset of schizophrenic disorder. I have developed successful intervention programmes (described above) that tested valid and reliable in providing help in this direction.

My target research subjects have been individuals that fall within the adolescence and pre-adult or youth age developmental group. This age bracket is unique and provides fertile research opportunities because the adolescence (13-18 years) and the Youth (18-25) periods of human growth are marked by ambivalence, anxiety and confusion. The individual at this stage of life is confronted with the need to make occupational choice, break social barriers, like socializing across gender boundaries and forging a stable personality profile that would usher him or her into adulthood. In this regard, my research activities have been directed at addressing various psychological problems that adolescents and youths may have to contend with in the peculiar Nigerian environment where systemic growth enhancers, such as sustainable regenerative societal values are yet in the process of being developed.

During my humble beginnings, it would have amounted to a grandiose pipe dream to think that one day I will stand before a crowd of eminent scholars and respected academics to deliver a lecture of this kind. Because the circumstances that prevailed in the rural community of my birth then, can only encourage you to aspire to be a school teacher, or at most a B.A. Dip. Ed. Fourah Bay school principal, but God in his infinite mercies has continued to direct my footsteps and shaped the circumstances of my daily experience in a

way that made me suspect early that I might be designed for greater tasks in life. He blessed me with a father who would neither compromise excellence nor accept any excuse for failure. Thank God that he is still alive and kicking today. He sponsored me through school when several convenient alternatives for not doing so availed aplenty like securing a job as a clerk, sharing a space with him in his large farmstead or becoming a buy and sell trader. To him and my late mother, Mama Esther Aina Elegbeleye, of blessed memory, I seize this opportunity to register my sincere appreciation.

Having been sponsored by a visionary father could not in itself have ensured an unfettered academic journey if other compulsory life accessories had not remained constant and supportive. For example, I'm clear in my mind that if I had married a different wife other



than my wife of thirty years, Mrs Christy Oluwaloni Elegbeleye, nee Omotoye, who in the manner of every God sent wives stood by me through thick and thin, the story today would not be what it is. I seize this opportunity to express my heartfelt gratitude to her. My siblings, indeed, also play a big role in shaping my life positively. They are now making waves in their various callings; I express my sincere thanks to them for sharing with me the unpleasant moments and providing the lifts that fuel the will to struggle on. My children who have now

grown to adulthood, have constituted for me an iconic gift from God. They have been a source of immeasurable joy to me, without which I would have lost my cheerful disposition and remain companionless. They too deserve a big mention anytime the story of my life is told. To them, Oladapo Ayodeji, Oladiipo Ayodamope, Oladayo Ayobami, I say a cheerful thank you. To my regular by-sitters at the OAU Staff Club, where I was once president, and the various students, that have contributed to fertilizing my knowledge and teaching of Psychology, I acknowledge the complementary role you all have played by being good companions along my career path, I seize this opportunity to express my sincere thanks. To my social friends who span the entire campus and Ile – Ife environs, I thank you for the memorable moments you have shared with me. To all of you good people, from all walks of life who have spared your valuable time to listen to this lecture, I thank you and wish you a safe journey back to your destinations. **Thank you all.**

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