



## Psychology of Crime Investigation

<sup>1</sup>Harry Obi-Nwosu, <sup>2</sup>Charles O. Anazonwu <sup>3</sup>Chidozie Nwafor, & <sup>3</sup>Chioma Agba

<sup>1,2,3,&4</sup> Department of Psychology, Nnamdi Azikiwe University, Awka

<sup>1</sup> Email: [ho.nwosu@unizik.edu.ng](mailto:ho.nwosu@unizik.edu.ng); [royaldioka@gmail.com](mailto:royaldioka@gmail.com)

### Abstract

*The paper defines criminal acts as behaviors that violate norms, to which the law attaches punishments as deterrents. It explains that psychologists as human behavior experts apply knowledge accruing from general and applied psychology to explain biological and environmental motivations of crime, and the relationship between personality factors and criminal behavior. It holds that in contemporary society, most criminal activities can be explained by the economic model of crime which it considers an offshoot of the social cognitive theory, and the rational choice theory, although a few cases of crime are consequences of poor mental health (biological factors). The paper opines that crime investigation which main goal is identification of perpetrators of crime involves analyses of these factors alongside physical evidence at the crime scene and vital aspects of crime analyses. It recommends massive involvement of qualified psychologist in the fight against crime in Nigeria.*

### INTRODUCTION

In everyday language, the word crime has three perspectives: any behavior that violets, or is against the law, any behavior that is punishable under the criminal code of a state or an autonomous group, and any behavior that is ungodly (immoral) or anti-social. Whichever definition, the common or obvious denomination is that someone performed an action, set of actions or inaction that is not agreeable to others in accordance with some norms. As a character, crime causes pain, losses and damage of varying sorts and degrees to the perpetrator. However for the purposes of this discourse, crime is defined as any behavior that violates the criminal code for which a range of penalties exist upon conviction (Bartol and Bartol, 2008).

The last two words of the later clinical definition of crime actually describe the frontiers of the subjects that ineluctably tie criminal behavior to investigation, which is the process of inquiring into, or studying an event, happening or person with a view of gathering factual information or knowledge concerning same. In criminology, investigation is best described as an examination process; a process of scrutinization or research that uncovers hidden information about a crime. Crime investigation is hence, the process or processes (methods of inquiry) that authorities employ to find out hidden information (secrets) about who a crime

perpetrator is/are, what motivated them, and possible remote involvements like interrelatedness of crimes, purposes, persons and institutions. Crime investigation is therefore a very vast and intricate multi-disciplinary subject. The totality of which will not be covered in this paper. Nonetheless, a good overview, with particular reference to the role of psychology will be attempted.

Psychology concerns itself with analyzing, understanding, controlling and predicting behavior using scientific methods. Research in psychology involves observation, experimentation, testing, and analysis to explore the biological, cognitive, emotional, personal and social processes or stimuli that determine, or interact to determine behavior. Psychological knowledge is applied in practice to diagnose and remedy mental, emotional, physical and social dysfunctions: to enable desirable behaviors in various settings and activities, for example, Judiciary, law enforcement, training institutions and organizations. Psychology also deals with intra personal dynamics with a view to understanding the supposed constellation of behaviors, traits, attitudes and other characteristics that distinguish individuals, and groups. Several theories and hypotheses have been advanced by distinguished psychologists and criminologists to explain criminal activities, and consequently, the place of psychological factors in crime, its investigation, and control. However, contemporary theoretical basis is here under presented.

### **Theoretical Basis of Criminal Behaviour**

For many centuries, humans have tried to offer explanation as to what motivates crime, so as to be able to control this behavior. In this paper, the more recent theories considered germane to proper appreciation of the issues of discourse will be briefly explained. These are the rational choice theory, and the Economic model of crime.

These are chosen not because there is no biological explanation for crime, but because criminal tendency consequent upon genetic aberrations or organic neurological states account for less than 20% of total criminal activities in every society.

The **Rational Choice Theory** is a theory of decision making, according to which, when faced with several options or possible courses of action, one chooses an option perceived to offer the best outcome. According to proponents of this theory, which focuses on the situational aspects of criminal behavior, criminals rationally choose the particular crime(s) to commit, the particular target(s), as well as the time and place so as to maximize desired outcome.



This implies that an investigator should expect a difficult time, since it is expected that the criminal must have made his or her calculations properly including considerations concerning possible apprehension. It is conceivable that this theory somehow relates more to organized crimes than to disorganized crimes.

The **Economic Model** holds that individuals choose same actions/reactions whenever confronted with same alternatives in respect of costs, rewards, and risks (Donohue, 2007). It follows that criminal behavior is a well thought out behavior which the perpetrator carefully balanced the grains against the odds. The criminal, a rather articulate person, explores perceived costs, rewards, and risks of alternative courses of action, and makes his/her decisions on the most rewarding: one that has the least possible cost.

It should be noted that costs are calculated based on capabilities and capacities of individual and groups. Hence, the level of crime or the kind and targets, depend on the perpetrators accumulated 'wealth' (contacts, experience, and equipment). This also relates to the possibility of encountering law enforcement agents.

The economic model seems to be quite informative when considering motivation for crime, the resources often expended on high profile crimes and the extent of sophistication of criminal activities currently being observed. In this connection then, the theory becomes consequential to crime investigation and prevention.

Another theory that has to be mentioned here is the Routine activities theory, which states that in order for a crime to be committed, the following specific conditions must be in place: there must be a motivated offender, a suitable target, as well as absence of a capable guardian (criminology wiki). This school holds that criminals are not impulsive or unpredictable; rather, they balance the costs and benefits of the crimes they commit. Theorists of this persuasion imply that: self interest motivates offenders, and that many more number of individuals within a milieu than could be imagined may be motivated to commit crime.

Following these assumptions, the investigator or crime preventer would expect certain kind of crimes in certain locations or localities, and not others. Thus, it is more likely for car theft to occur in middle class settings, and text book theft to occur on college grounds.

Condensing the propositions of these theories, one is persuaded that the **social cognitive theory** stands out as the single most complete theoretical explanation for crime in contemporary societies (excepting biological explanations). It follows that social factors, including values and dynamics combine with an individual's

assessment of his/her abilities in juxtaposition with the level of perceived risk (safety factors) determine which crime, when, and who the target of crime would be (Obi-Nwosu, 2008).

From this perspective, the crime investigator has to inquire into these factors in every case of crime and must not haste to conclusions until exhaustive exploration of interrelatedness of these factors is done. Accordingly, questions concerning possible motivation for each individual's crime, each crime, choice of victim (including possible vulnerability characteristics), choice of attack arena, and whether or not it seems properly planned or accidental on a particular victim ought to be teased out. It is probably drawing on this that psychological profiling of criminals is becoming popular.

### **The Crime Scene**

Since the oil that greases the wheel of crime investigation is physical evidence, which encompasses any and all objects that can establish that a crime has been committed, or can provide a link between a crime and its victim or a crime and its perpetrator (Saferstein, 2001), it is incumbent on investigators to ensure the availability and validity of such materials for forensic lab examinations and for other analyses. For this purpose, the crime scene needs to be barricaded within reasonable radius, the materials adequately collected, preserved, and transported to appropriate laboratories. Also, multidimensional and systematic photographs of the scene in its 'natural state' should be taken as soon as practicable for proper study. Where available, video recording of the crime scene is very helpful and should be taken. It is from these recordings that investigative sketches are made.

It is preferable to record the crime scene before searching for physical evidence, since this systematic and thorough search may dislocate some features of the scene that may offer significant clues on the methods, motivations and organization of the perpetrator, or some victim characteristics. Experts choose patterns of search (eg spiral or grid method) depending on the size and structure of the scene, as well as the number of evidence collectors that are participating.

Since admissibility of evidence in court depends on its authenticity and scientific validity. It is incumbent on investigators to handle the items with utmost professionalism. Again, track of every official person who handled such evidence, and for what (chain custody) must be properly documented for judges and defense counsels to be convinced that adulterations have not occurred. It must be noted however, that irrespective of the unequivocal need to make the crime scene free from contamination, health personnel should not be barred from assisting injured people in crime scenes, nor fire fighters restricted in cases of arson.



### **Criminal Identification**

Criminal identification is the main goal of crime investigation. Other goals include: identifying the motivating factors, victim related factors and possible remote and immediate facilitators of crime. To identify a culprit, it is traditional to do laboratory examinations of biological evidence as well as other materials. Some of the examinations involved are blood, DNA, and finger prints examinations.

**Blood stain(s)** examination start with making sure that it is human blood, then checking how closely it could match a particular individual's blood. Laboratory examinations (e.g. precipitin or gel diffusion tests) confirm human blood, then, full serological test to assay blood enzymes and proteins that could discriminate blood samples should be carried out. These enzymes and proteins according to Saferstein (2001), include adenosine deaminase (ADA), Adenylate kinase (AK), carbonic anhydrase II (CAII), erythrocyte acid phosphate (EAP), esterase D (EsD), glucose-6-phosphate dehydrogenase (G6PD), glyoxylase1 (GLO1), group-specific component (Gc), hepatoglobin (Hp), [peptidase A (Pep A), phosphoglucomutase (PGM), 6-Phosphogluconate dehydrogenase (6PGD), and transferrin (Tf). Additionally, the investigator should not forget the value of blood stain pattern since its possible origin and trajectory of property analyzed will give significant impetus to the understanding of events at the crime scene.

Scientists have proven that **Deoxyribonucleic Acid** (DNA) chains structure are highly individualized, with every person having certain peculiar and identifiable DNA character, and members of the same biological families having specific common characters.

The forensic psychologist may not fully understand the DNA chemistry or structure but should be able to understand circumstances where such tests are called for so as to refer samples for appropriate laboratory examinations. Whether there are ready suspects or not, provided that the services are available, it is advisable to get DNA tests done on all human samples so as to:

- i. Figure out the possible number of active people around the crime scene.
- ii. Identify perpetrator(s) if arrests are made and profiles or other information point to many (at least more than one) person.
- iii. As a major differentiation/ confirmation test when other substantial information points to a person and the person strongly denies (especially for supposed first offender)

It should be noted that collection and presentation of biological samples require some safety measures. First is for the investigators to avoid contamination/ infection with contagious and infectious diseases, and second is to ensure that the

samples remain valid and useable for laboratory tests. This means that if the forensic psychologist is a private investigator, he/she should be equipped to collect 'uncontaminated' samples and preserve same appropriately for valid laboratory examination.

**Finger Prints** are also very important in crime investigations since they are the most easily available unique feature of every individual. To date, no two fingers have been found to possess similar ridge idiosyncrasies. Indeed, it is not the obvious patterns of the ridge that discriminate, but the ridge characteristics, known as minutiae, which describes the ridge endings, bifurcations, enclosures, and other details. Finger prints may not always be obvious but latent in crime scenes. Visible prints could be seen through ink or paint marks, dirt/ or blood. Plastic prints are those impressed on soft surfaces, sand/dust, soap grease, wax, or the like, and latent prints are those that are not obvious. These are seen and developed through technology, for example the reflected ultraviolet imaging system. Other methods of identifying latent finger prints include Iodine Fuming, and physical Developer: a silver nitrate based liquid reagent (Kendall and Rehn, (1983).

Finger prints 'tell' who had been in the crime scene, sometimes it 'tells' who the criminal is: 'sometimes' because since most people already know about this method of identification, most criminals 'leave no finger prints'. However it is still quite useful in furthering investigation and must never be neglected.

It shall be stressed that many other objects/items including (but not limited to) clothing and shoes and parts of these, utensils, toys, and anything that seem not to be a usual component of the immediate environment could be useful clues to what and how about the crime, and possibly who did it. As minute evidence as super imposed colour on an item of furniture, a shoe mark, or torn pieces of paper may have to be examined for information. The investigator should also be able to classify the crime as organized or otherwise from the assessment of the crime scene, speculate gang or individual involvement, and guess personality attributes of both perpetrator and victim.

### **Evaluation of Witness Testimony**

Broadly speaking, witnesses could be dichotomized into the ordinary, and the expert witness. The first category consists of all persons who testify in a court of law on both sides of the adversarial divide, not minding their positions, knowledge or other demographics. Expert witnesses are so labeled because they are called upon to testify just in respect of their skills. Their testimonies are supposed to assist the trial judge(s) tease technical issues that may twist a case. Many a time,



the court herself invites such persons through subpoena, although in many jurisdictions, both the prosecution and defense may call in an expert witness especially to assist to authenticate/validate (or otherwise) an evidence, or to address competency or culpability issues on ground of mental or physical health status. In the latter case the admissibility and weight of the evidence depends on the perception of the bench.

One of the most formidable challenges of forensic psychology practice is the assessment of reliability and validity of witness testimonies: What is true/correct, and what is not, and what may have been crafted to deceive the court. Traditionally, the cross-examination process opens the chance on the opposition and court to try to figure this out. Unfortunately, most clever attorneys are able to preempt cross-examination questions, hence prepare their witnesses to succeed in deceiving the court. Forensic psychologists therefore have to employ their skills to solve this dilemma. One may deliberately tell lies, or may be saying what he/she honestly believes to be the truth, which is not actually so (recall the gestalt law of closure). This is a major complication to forensic psychological practice at this level, especially as it has become clearer that the polygraph cannot help here, and cannot help in cases of habitual liars or psychopaths, since no alteration in physiology on which the machine depends may occur irrespective of how obvious their lies may be. This shortcoming of the polygraph accounts why most courts reject it's evidence.

The forensic psychologist is left with the option of skillfully harnessing information generated through assessment and psychological testing. In this regard, not minding how cumbersome it could be, personality assessment with a battery is indispensable in any consequential case. The primary purpose of such assessment is to capture 'the person of the witness' so as complement information from the interview. Lawyers and Psychologists often advocate the 'put him off guard' technique in which the witness is first asked distant questions that may seem irrelevant and provocative, before the main questions, often in a leading form. Some Judges may not allow lengthy 'side' questions or leading questions, but others, especially in criminal trials allow larger latitude to both sides.

Eye contacts during interrogation (interview) often help to suggest whether an answer is straight from memory, or modified. To this end, it may be beneficial to ask questions that require sentences instead of 'yes' or 'no'. Sluggish responses suggest reservations. Again, same information previously denied could be elicited through appropriately reframed questions asked when unexpected. Follow-up questions craftily constructed often expose faking witnesses since it is usually difficult to make up detailed sequential lies.

### **Personality and Crime**

Miller and Lynam (2001) in a Meta-analysis reported that both low agreeableness and low conscientiousness consistently predicted various kinds of delinquency and offending. Their findings with respect to dimensions of neuroticism, extraversion, and openness are more complex and inconsistent. For example, neuroticism was significantly related to self-reported interpersonal violence among undergraduate men, whereas self reported vandalism and theft correlated with neuroticism for men but not for women.

In another study with two different samples, neuroticism and extraversion failed to predict self-reported delinquency for both sexes (Heaven, Caputi, Trivellion-Scott, & Swinton, 2000). Likewise, neuroticism, extraversion, and openness were not significantly correlated with self-reported offending in a sample of prisoners in a release-preparation program, whereas agreeableness and conscientiousness did correlate significantly with offending (Wiebe, 2004). Conversely, Dennison, Stough, and Birgden (2001) compared different types of sex offenders with non offenders and found significant differences for neuroticism, extraversion, and conscientiousness. Taken together, these studies suggest that neuroticism, extraversion, or openness were not consistent predictors of delinquency. Although openness appears hardly associated with criminality, some studies do support this relationship. For instance, a study by Clower and Bothwell (2001) revealed that openness and conscientiousness were the only FFM factors that were related to number of arrests. This is not in contradiction with the results from meta-analysis conducted by Miller and Lyann (2001), which found link to antisocial behavior only for conscientiousness and agreeableness, and a moderate link for neuroticism.

Herzberg and Hoyer (2009) in a study applied a person-centered approach based on five-factor model of personality to organize personality data of criminal offenders and examine psychological differences between resulting prototypes. In the first study, 91 offenders were administered the NEO five factor (IIP), the Borderline Personality Inventory, and the White Bear Suppression Inventory. In the second study of 102 offenders, the researchers again used the NEO-FFI, IIP, and additional self-report instruments measuring psychopathological symptoms, social interaction problems, and functional and dysfunctional forms of self-consciousness. Cluster analyses revealed five prototypes that replicate previous ones from non-offender studies. Subsequent analyses demonstrated systematic and psychologically meaningful differences between these groups in their tendencies to behave, think, and feel.





The findings indicated that this pattern showed good similarity to the five-cluster solutions found by other researchers (Roth & von Collani, 2007) and especially to the prisoner sample investigated by Herzberg and Roth (2006). The first cluster (n=17, 18.7%) was characterized by low scores in neuroticism and above average scores on all other scales, and it clearly resembles the resilient prototype. The second cluster (n=5, 5.5%) was characterized mainly by two dimensions, namely, high scores in neuroticism together with low scores in extraversion, whereas the scores on the remaining scales were average. This cluster could be identified as the over-controlled prototype. The third cluster (n=22, 24.2%) was characterized by above average scores in neuroticism and low scores in extraversion, openness, and conscientiousness, whereas on agreeableness were average. This cluster resembled the under-controlled prototype. The fourth cluster (n=38, 41.8%) was characterized by moderate negative scores in neuroticism and moderate positive scores on the remaining scales. This cluster showed a strong similarity to confident prototype derived by Herzberg and Roth (2006). Finally, the fifth cluster (n=9, 9.9%) had low scores in neuroticism and openness, high scores in conscientiousness, average scores in extraversion, and moderate high scores in agreeableness. Therefore, this cluster represents the reserved prototype. The findings, derived from two independent samples, confirm the hypothesis that offenders were not a homogenous group in terms of personality and that an established person-centered approach grounded on the FFM can successfully be applied to this population. This is in accordance with observations in forensic settings that offenders show striking differences in their habitual tendencies to act, think, and feel, explaining that any of the domains of FFM can be predisposed to different crimes, and at different levels.

If the foregoing brief review on personality and criminality is juxtaposed with the findings of Tenibiage (2010), that prisoners scored higher in extraversion, neuroticism and psychoticism (using EPQ) than non prisoners, and that of Obi, Nwankwo, Agu, et al (2013), that Agreeableness, Conscientiousness, and Extraversions significantly predicted tendency to commit crime, it becomes obvious that even though some traits may (if certain moderating factors 'go between') increase susceptibility to commit crime, there is no trait that is a criminal trait.

Personality therefore is a secondary factor which becomes significant when studied alongside moderating variables like SES, Location and Exposure. This again strengthens the theoretical framework, earlier exposed in this paper, and strongly supports the view that the number of possible criminals in a society is unimaginable. This is why it has been advocated that investigators should not take any clue for granted, no matter how insignificant it may seem at the face value.

### **Offender or Criminal Profiling**

This is often described as the third wave of investigative science, after the older ones of studying cues, and crime analysis. It is defined as a method of identifying a crime perpetrator by analyzing the nature of the crime, the manner it was committed, and various aspects of the offenders personality make up through his choices before, during, and after the crime (Fulew & Wrightsman 2008). According to Holmes and Holmes (2002), the three main goals of offender profiling are:

1. To provide law enforcement agencies with a social and psychological assessment of the criminal.
2. To provide them with a psychological evaluation of belongings found in the possession of the criminal.
3. To offer suggestions and strategies on the process of interview (to enhance the chance of positive outcome).

Four main approaches to profiling were aptly captured by Ainsworth (2001) thus:

- i. The geographical approach, in which the patterns are analyzed vis-à-vis timing, and location of the crime scene so as to find out where the offender lives and works.
- ii. Investigative psychology, which focuses on the use of psychological theories of analysis to determine the characteristics of the offender by assessing the presented offender behavior and style of committing crime.
- iii. The typological approach, which looks at the specific characteristics of crime scene for the purposes of categorizing the offender into the various 'typical' characteristics (descriptions).
- iv. The clinical approach, which analyses psychiatric and psychological characteristics of the offender to determine whether or not there is any mental or psychological abnormality.

To enhance sequential analyses, profilers divide the schema into four: First phase (Antecedents) seeks to aggregate the offender's plan, fantasy or both, and addresses such questions as whether the crime (eg murder) had plans earlier, what fantasies, what might have triggered the offence at particular times, days or places, and not others.

Second phase is the method(s) and manner of offence: the type of victims, how is offence executed (eg shooting, stabbing or strangulating or poisoning....). The third phase is Body disposal that is in cases of murder; is the body abandoned at the same crime scene or taken elsewhere? Then, in other cases what efforts at concealing crime or distracting investigators is made. Then the Fourth phase is the post offensive behavior, in which the profiler seeks to find out if the offender



wants to join the investigation team by reacting to media reports or contacting law enforcement agencies.

Putting these together, profilers sometimes try to predict when, where, and the next possible victim of the 'wanted' criminal. It should be noted, that some profilers opine that case linkage which involves analysis of cases to obtain discrete connections between two or more previously unrelated cases is a distinct phase of profiling.

Sequel to the foregoing, psychological assessment of offenders and victims becomes very consequential proactive investigative tool. Every offender and victim should be properly and professionally assessed and tested psychologically, and a data bank on common traits, personality, psycho-social, psycho-physiological, and psychopathological characteristics built up within every division (geographical or economic region). Such information 'fitted against' crime trends, modus operandi, and political-economic climate enhance the configuration of crime data which facilitate investigation of future crimes.

### **Summary and Conclusions**

Crime investigation is multi dimensional and multi-disciplinary. Its main goal is to apprehend crime perpetrators, thus enhance security of lives and property. Psychology as a discipline is indispensable in crime investigation because as human behavior experts, psychologists also understand criminal behavior more than other professionals. Besides laboratory analysis of physical crime scene evidence, psychological assessment of the crime scene must be carefully undertaken, else, faulty assumptions would be made, and culprits may never be apprehended.

Psychological theories of criminality galvanize the thoughts of experts on motivations and sustaining factors of criminal behavior postulations. Considering the propositions of the Rational Choice Theory, the Economic Model, and the Routine Activity theory, the emerging model depicts the social cognitive theory of crime, which emphasizes that most crimes are properly contemplated and executed in such a way as to make it difficult, if not impossible for investigators to identify the perpetrator(s). However, there are crimes that are not instrumental; though just a few. Such offending are commonly referred to as reaction to a perceived threat or dangerous situation. They are often the impulsive and thoughtless reaction to proactive behavior whether imagined or real, geared towards protecting physical or psychological self. Additionally, it is noted that adverse psychological health status (mental Health) also predispose to violence

and crime, but such crimes are not really statistically significant, and can only be addressed through improved community mental health hygiene.

Major psychological input to crime investigation through offender profiling; a method of identifying criminals by analyzing the nature of the crime, the manner it was committed, and various aspects of personality of the offender through his choices before, during and after offence is currently engaging researchers. Psychological data banks of offenders and offences should also be maintained in every jurisdiction to enhance quick and productive crime investigation.

### References

- Ainsworth, P. (2001). *Offender Profiling and Crime Analysis*. Cullompton, Devon, Willan Publishing.
- Bartol, C.R. & Bartol, A.M., (2008). *Introduction to Forensic Psychology Research and Application*. London, SAGE.
- Clower, C.E. & Bothwell, R.K. (2001). An Exploratory Study of the Relationship between the big five and Inmate recidivism. *Journal of Research in Personality, 35* (2): 231-237
- Stough, C., & Birgden, A. (2001). The big 5 dimensional personality approach to Understanding sexual offenders *Psychology, Crime and Law, 7*, 243-61.
- Donohue, J. J. (2007). Economic Models of Crime and Punishment. *Social Research, 74*. (2) 379-412.
- Fulew, S. & Wrightsman, L. (2008). *Profiling Violent Crimes: An Investigative Tool*. London, SAGE.
- Heaven, P. C. L., Caputi, P., Trivellion-Scott, D., & Swinton, T. (2000). Personality and group influences on self-reported delinquent behavior. *Personality and Individual Differences, 28*, 1143-1158.
- Herzberg, P. Y. & Hoyer, J. (2009). Personality Prototypes in Adult Offenders, *Criminal Justice and Behavior* 36; 259 Originally published online Dec. 16, 2008: DOL:10.1177/00385480328331.
- Herzberg, P.Y., & Roth, M. (2006). Beyond resilient, under controllers, and over controllers? An Extension of personality prototype research. *European Journal of Personality, 20*, 5-28.
- Kendall, F. & Rehn, W. (1983). Rapid method of super fuming application for development of latent Finger prints. *Journal of forensic sciences* 28, 777-780.
- Miller, J. D., & Dollard, J. (2001). Structural models of personality and their relation to antisocial Behavior: A meta-analytic review. *Criminology, 39*, 765-798.
- Obi, T. C., Nwankwo, B. E., Agu, S.A., Aboh, J.U. & Sydney-Agbor, N. (2013). Influence of Personality and Age on Attitude towards Crime among



Adolescents. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*  
*Volume 17,(1)* 80-86.

- Obi-Nwosu, H. (2008). *Psychological themes*. Awka: Demecury Publishers.
- Roth, M., & von Collani, G. (2007). A head-to-head comparison of Big-Five types and traits in the prediction of social attitudes: Further evidence for a five-cluster typology. *Journal of Individual Differences*, 28, 138-149.
- Saferstein, R. (2001). *Criminalistics: An introduction to Forensic Science*. London, Prentice Hall.
- Weibe, R. P. (2004). Delinquent behavior and the five-factor model: Hiding in the adaptive Landscape? *Individual Differences Research*; 2, 38-62

### **Biography**

**Dr. Harry Obi-Nwosu is a senior lecturer and a Clinical Psychologist at the Department of Psychology, Nnamdi Azikiwe University Awka, Anambra State Nigeria. His research interests include impact of governance on the citizens' psychological wellbeing, adapting forensic assessment to suit cultural belief, governance and identity formation and psychosomatic symptoms.**  
Email: [royaldioka@gmail.com](mailto:royaldioka@gmail.com); [ho.nwosu@unizik.edu.ng](mailto:ho.nwosu@unizik.edu.ng)

**Dr. Charles O Anazonwu is a senior lecturer and a Social Psychologist at the Department of Psychology, Nnamdi Azikiwe University Awka, Anambra State Nigeria. His research interests include impact of governance on the citizens' psychological wellbeing, Peace and conflict resolution**  
Email: [co.anazonwu@unizik.edu.ng](mailto:co.anazonwu@unizik.edu.ng)

**Dr. Chidozie Edwin Nwafor is a Developmental Psychologist and a lecturer at Department of Psychology Nnamdi Azikiwe University Awka Nigeria. His Primary research interest include psychological wellbeing of children and early adults; theory of mind and behavior development.**  
[Ce.nwafor@unizik.edu.ng](mailto:Ce.nwafor@unizik.edu.ng)

**Agba Chioma Cynthia is a technologist at Nnamdi Azikiwe University Awka Anambra State. She has penchant for research and community development. She is also interested in research on crime and crime control**  
[Agbachioma.o@mail.com](mailto:Agbachioma.o@mail.com)