

Balancing The Nature-Nurture Conflicts On Child Intelligence Through Islamic Paradigm

Rabi’u Garba Idris¹

Ahmad Abdullahi Ibrahim¹

Aliyu Musa¹

Abstract

Few topics in the social sciences came up with more controversies than the influence of nature-nurture conflicts on child intelligence. There has been an old debate among Psychologists, is intelligence a product of nature (heredity) or nurture (environment). Psychologists stalemate, Scholars like Descartes are the proponents of nature, whereas people like Locke advocates nurture. Notwithstanding, Islam believes that, “the horns of a dilemma are usually on the same bull.” Therefore, this paper discusses the concept of intelligence is-à-is the nature-nurture conflict reflecting the evidences propose by each of the belligerent parties. Then it finally explores the Islamic worldview which reconciles between the conflicting views that Allah is the ultimate being that controls both the biological and environmental factors on the child’s intelligence.

Keywords: Intelligence, nature-nurture, conflicts

¹ Authors are from the Department of Arts and Social Sciences Education, Northwest University Kano. Corresponding Author: Rabi’u Garba Idris

INTRODUCTION

The meaning of ‘intelligence’ has been hotly contested for many years. Francis Galton (1822-1911), the first person to a theory of intelligence believes that, intelligence is the real faculty with a biological basis that could be studied by measuring reactions to certain cognitive tasks. In today’s psychological landscape, intelligence can be defined as the capacity to learn from experiences and apply it to practice Boundless (2015). The nature versus nurture debate is one of the most enduring in the field of psychology. How far is the child’s intelligence, Innate and how far is it all learned? A child gets his blue eyes from his mother, and red pigment from his father, but where does he get the talent for reading, writing and sharpness of articulation? Did a child learn these from his parents or was it predetermined by genes? These issues are at the centre of the ongoing nature versus nurture controversy.

It is very much clear that physical features are hereditary, the genetic waters get a bit murkier when it comes to a child's intelligence. Most of the scholars that are involved in the conflict stalemate. Psychologists do not yet know how much of what children are is determined by DNA and how much by life experience Mangal (2012). Ultimately, the old-aged debate leaves behind the psychologists at each other’s throats as there is neither a victory nor vanquish. As intelligence is very difficult to define and having no unanimous accepted meaning, due to the fact that what may be regarded as intelligence to one society may not necessarily be the case to another. This is what makes the nature-nurture crisis more prone to ‘ding dong’ affairs among the scholars for almost a century. Hence, it is tougher to discuss the issue of N-N controversy more especially in relation to human intelligence.

THE BASIC HISTORY OF THE DEBATE

As the history, literature proven, this long life debate has been the centre of psychology for over two thousand years. Besides, it has a very early start with regard to the huge and most persistent issue Myers (2013). In the field of psychology, the ancient Greek philosophers were not exempted from the conflict. Plato the giant Greek philosopher who lived between (428-348 B.C.E.), was of the

opinion that morality and capability of human intelligence was something that has to do with innate tendency. Thereafter, another Greek star in the field of philosophy who preceded him, in the name of Aristotle lived between (384-322 B.C.E.) argued that anything that man possess is not inherited, but comes through an overt encounter Myers (2013).

This debate persistently became the focal point the conflicts in Europe in 1600's and onward, particularly in the 17th century the French philosopher Rene Descartes set out views which held that we all, as individual human beings possess certain inborn ideas that underpin our approach to the world. The British philosopher John Locke on the other hand, emphasized the role of experience as fully contributing to the behavioural development. In 1891 Charles Darwin, the father of evolution took part in the debate, where he opinionated that natural selection permitted the continuance of traits that ensured the survival of species. In this theory, Darwin believes that heredity influences the behaviour of an individual for his survival. That is how the debate continues generation after generation up till today.

THE CONCEPT OF INTELLIGENCE

Intelligence, the term usually referring to a general mental capability to reason, solve problems, think abstractly, learn and understand new material, and profit from past experience. Most people have an intuitive notion of what intelligence is. Yet no universally accepted definition of intelligence exists, and people continue to debate what exactly, it is. In 1921 an academic journal asked 14 prominent Psychologists and researchers in education to define intelligence. The journal received 14 different definitions. In 1986 same scenario was repeated in which 25 Psychologists were assigned, and they came up with 25 various definitions such as general adaptability to new problems in life; ability to engage in abstract thinking; capacity to acquire capacity; ability to judge, to understand, to reason, and to think; general cognitive ability, etc. The fundamental questions remain; is intelligence a product of nature or nurture? This led to the nature- nurture debate.

The nature versus nurture debate is one of the oldest issues in psychology. Plato and Aristotle were not exempted in the debate; Plato was in favour of nature, while Aristotle was a supporter of nurture. The debate centres on the relative contribution of genetic inheritance and environmental factors on human intelligence. Some philosophers such as Plato and Descartes suggested that certain things are inborn, or that they simply occur naturally regardless of environmental influences. According to Mangal (2012b) people who take the position that all or most behaviours and characteristics are the result of inheritance are known as nativists. Other well-known thinkers such as John Locke believed in what is known as *Tabula rasa*, which suggests that the mind begins as a blank slate. According to this notion, everything we are and all our intelligence is determined by our experience. People who take the position that all or most behaviours and characteristics are the result of learning are known as empiricists. Whether one's intelligence is largely dependent upon heredity-genetic materials and codes inherited from one's parents or is chiefly designed by one's life experience or environmental factors has been a controversial issue. While those in support of nature in this debate attach all importance to heredity, the people that in favour of nurture give all credit to the environment. Thus, in support of their viewpoints both of the proponents of heredity as what determines our intelligence and the supporters of environment as what controls we intelligently put forward various experimental evidences (Mangal, 2012b)

IS INTELLIGENCE NATURE OR NURTURE?

Arguments in favour of nature and nurture, showing the relative importance of one or the other have given birth to contentious controversy on one end are the advocates of nature on its role in intelligence; they are also known as hereditarians who claim that heredity is all in all and decides and sets everything about the intelligence of an individual. No amount of education, training or experience can change the intellectual capacity of an individual from what he is or has been in his ancestral being. It is in this sense that Douglas and Holland (1947) assert that one's heredity consists of all structures, physical characteristics, functions or capacities derived from parents, other ancestry or species. Education to them is futile.

The function of education to environment in the making of intelligence, according to them, can be compared to the polishing or painting of wooden furniture. No polish or paint can change the basic qualities of the wood used in the furniture. It only improves its appearance and might increase its life a little.

The supporters of nurture on the other end who are also known as environmentalists, are of the opinion that heredity does not, in any way affect the intellectual development of a child. Man is a product of his environment. He is what the environment has made him. According to Woodworth and Marquis (1948) in an attempt to show the role of environment on intelligence over that of heredity posit that, environment covers all outside factors that have acted on the individual since he began life. There is nothing like definite heredity characteristics or inherited qualities to them. What a man does another man can also do if gets favourable opportunities. Watson one of the prominent environmentalists declares that, “give me any child; I will make him what you desire”. Thus, according to the environmentalists, the environment is all in all. The growth and development of an individual’s intelligence are the net result of his environment.

EVIDENCE IN SUPPORT OF NATURE

The scholars that support nature as the major influence of human intelligence, did not fold up their arms after making promulgating their arguments. They fully prove their claims by some experimental presentations. According to Mangal (2012a) Freeman made a research which is based on experiment analysed through the calculation of coefficients of correlation and their comparison of the identical twins, fraternal twins, siblings and cousins as follows:

Identical twins	=.90
Fraternal twins	=.60
Sibling	=.50
Cousins	=.25

The study shows the increase similarity in intelligence test-scores with the increase in the amount of blood relationship. Mathematically, it includes that blood relation. It is directly

proportional to the similarity in intelligence. According to hereditarians, this experiment gives sufficient evidence in favour of the fact that heredity controls the intelligence of an individual.

Galton Francis prepared a list of 977 genius and well to do people and investigated about their relatives. They were found to have 536 eminent relatives. For comparison he prepared another list of 977 average men and similarly investigated about their relatives. These 977 average men had but four relatives who were eminent. By this data, he concluded that intelligence and all other likewise personality characteristics are transmitted through blood. Teasdale and Owen (1984) arrived at the similar conclusion through their comparative study of intelligence scores of full siblings, half-siblings and individuals who are unrelated but reared together and apart. The study demonstrates a very high correlation in the IQ scores of full siblings, whether they were raised together or apart in comparison to half-siblings and unrelated individuals who demonstrated comparatively less correlation and no correlation respectively.

More evidence of this study of blood relationship and family resemblance was seen in the theories reported by Jencks (1972) and Munsinger (1978). These studies demonstrate a positive correlation ranging from .40 to .50 between adopted children and their real parents, in contrast to a very small correlation of +. 10 to +. 20 between the adopted children and adopted parent, leading to the conclusion that people closer to each other from the point of heredity potential have comparable IQ. Genetically twins are said to be more closely related than normal siblings and among twins also, monozygotic or identical twins (with the same genes) are said to be even closer in terms of heredity potential than fraternal twins (with a different set of genes). Many studies involving the separation of twins at birth and their rearing in different environments have been conducted Mangal (2012).

Bouchard (1987) located a number of identical twins (who were separated from their parents only a few days after their birth and reared in different homes) and subjected them to intelligence tests. This study demonstrated a very high correlation in the IQ scores of identical twins reared apart to almost the same degree as found in the

case of identical twins reared together. Furthermore, twins reared apart are found to resemble each other in other aspects of human personality – physical appearance, interests, aptitudes, habits, and mannerism etc.

EVIDENCE IN SUPPORT OF NURTURE

Environmentalists equally engaged themselves in psychological studies in support of their viewpoints on the role of environment in the intellectual development of an individual. Here are some of their experiments. This is a study that puts emphasis on the importance of environment, Kodak studied foster children, and the true mothers of these children were tested for certain mental test. The average IQ of this group of 80 mothers was 87.7. The majority of the mothers fell “below average”, 53.8% had an IQ below 90, 16.3% were borderline and 1.8 were feeble minded. Yet the average IQs of their children was 116. If heredity determines the future course, then these foster children could not have gained much in terms of IQ. This study clearly shows the influence of environment on the growth and development of personality character which is intelligence.

Many studies have indicated that the individuals (having family relationship) have a more comparable IQ if they happen to be reared in the same environments. Evidence suggests that environmental factors have an effect on individual’s I.Q. Result from two study, study 1: carried by Loehlin, Lindsay and Spuhler (1975) and study 2: Bouchard and Mc Gue (1981) revealed that identical twins (reared together) 0.88 and 0.85 identical twins (reared apart) 0.75 and 0.67 siblings (reared together) 0.49 and 0.45 siblings (reared apart) 0.46 and 0.24. Mangal (2012) summarized the two studies conducted by the researchers as follows:

Mode of Relationship and Rearing	Coefficient of Correlation	
	Study 1	Study 2
Identical twins (reared together)	0.88	0.85
Identical twins (reared apart)	0.75	0.67
Siblings (reared together)	0.49	0.45
Siblings (reared apart)	0.46	0.24

The adverse effects of environmental deprivation and positive, favourable effects of environmental enrichment upon the children's intellectual development have been demonstrated in many studies. In one of his studies Gottfried (1984) concluded that if the children are subjected to certain forms of environmental stimulation early in life, their intellectual development gets adversely affected. Similar conclusions were drawn in another study conducted by Sherman and Key (1932) in an unprivileged remote hilly area of the U.S.A. to the effect that lack of language training and school experience accounted for the very poor scores of the children in the standardized intelligence tests.

However, when the children were provided with favourable environmental situations in the form of appropriate adoptive homes, better schooling and learning facilities etc.. The results were quite encouraging in terms of intellectual development. A well known adoption study Schiff et al, (1978) conducted in France in which the researchers compared the IQ scores of children who had been adopted by parents belonging to a higher socioeconomic class with those of their siblings who have not been adopted. The average score of the adopted children was 111 in comparison to the average score of 95 of their siblings raised by their biological parents.

The privileged environment may thus be said to be responsible for raising the average IQ score by 16 points. The controversial arguments regarding the relative influences of heredity and environment on people intelligent are quite a subject for discussion. The question whether heredity affects intelligent more than environment or vice versa is same like asking whether seed or soil is more important for the proper development of a plant. In this connection McIver and Page (1949) have said succinctly that, every phenomena of life are a product of both heredity and environment, each is as necessary to the result of the other. Neither can ever be eliminated and neither ever be isolated.

That is how the psychologists have been debating over the influence of heredity and environment on one's intelligence, although there are a few biologists who think that both factors control the

intellectual behaviour of an individual, but until today this battle is still being fought among the psychologists.

THE ISLAMIC PERSPECTIVE ON NATURE-NURTURE DEBATE

The origin of western psychology is based on a secular thought that confronts traditional and religious values while giving human being the sublime power to decide his moral code. Islam believes in the two factors that is heredity and environment as being the determinants of one's intelligence. According to Noor (2012), Islam holds a balancing view in relation to the root cause of the prolong conflict of nature nurture this-à-is human intelligence. Furthermore, Islam forms the integrated and comprehensive way in dealing with human intelligence, especially by means of the interactions of nature, nurture, and the spiritual factor in the development of human personality Fatima (2013). Therefore, Islam gives equal emphasis to the overt factors (that can be seen) and covert agents (that cannot be seen). The Qur'an mentions in blanket terms that all things are created biologically in pairs.

“And that He (Allah) creates the pairs, male and female, from Nutfah (drops of semen male and female discharges) when it is emitted.” 53; 45-46.

“And of everything We have created pairs that you may remember.” 51; 49.

“And made him in two sexes, male and female.” 57; 39.

Based on the aforementioned verses, some Muslim scholars opine that characteristic manifestation in children can be biological through genetic transmission and can influence the psycho-personality traits of an individual Achoi (1998). According to this view intelligence and other cognitive behaviours such as curiosity, hyperactivity and the inquisition are influenced by genetic transmission Carson and Butcher (1992). To consolidate these opinions, the prophet (PBUH) is reported to have said, with regard to the crucial factor of lineage in choosing a spouse. “A woman is married for four reasons; her wealth, her lineage, her beauty and her religion....” Bukhari (Vol. 7). This tradition palpably demonstrates the nobility of lineage as one of the

salient elements for the selection of a spouse, since a refined character and intelligent mother can transmit cerebral capacity of her children.

Islam also emphasises the influence of environmental factors on a child's behaviour especially his intelligence. This is supported by the famous by the famous hadith on **fire** where the prophet said, "Every child is born with a true faith (fitrah). It is his parents who converted him to Judaism, Christianity or Paganism...." Bukhari (vol. 2). Besides, the blessed tradition mentioned, prophet Muhammad (PBUH) speaks clearly about how strong influencing environment is, in addition to the hereditary predisposition, meaning to say how the domestic environment can distort the children's intellectual endowment in a way that can shape their attitudes, their faith and the way they comprehend their very being.

Islam accepts both nature and nurture play major roles in shaping and moulding the intelligence of a child. It is believed that, "The horns of the dilemma are always on the same bull." Both nature and nurture are the creation of Allah to whom everything belongs and to whom everything shall be returned.

CONCLUSION

Scholars in the field of psychology stalemated over the old-aged and prolonged debate of nature-nurture as which of the two has an influence on the intelligence of a child. The conflict was compounded as the term intelligence in the eyes of psychologists is very difficult to define per se, because until today there is no consensus on the definition of intelligence among scholars, this makes the issue to remain unresolved. But Islam perceives that there is a balanced interaction between the heredity and environment in shaping the intelligence of a child. Islam requires Muslims to believe that Allah is the ultimate factor that controls the biological and experiences factors. According to Alias (2012) this requires an Islamic psychological perspective to include soul that professes Iman or faith and accept divine guidance as an important element because it is the soul that believes in the supremacy of Allah. Thus, the spiritual

nature plays a role despite the biological and environmental factors influencing human intelligence.

Reference

- Achoi, M. (1998), *Human Nature from Comparative Psychological Perspective*. The American Journal of Islamic Social Sciences.
- Ali, A. Y. (1992), *The Meaning of the Holy Quran*. Brentwood, MD: Amana Corporation.
- Alias, A. (2012), *Teaching Human Nature in Psychology in Noor, M. N, (Ed) Psychology From Islamic perspective. A Guide to Teaching and Learning* IIUM Press KL.
- Bouchard, T.J. & Mc Gue, M. (1981), *Family Studies of Intelligence*. Plenum Press, New York.
- Boundles (2015) Boundles Psychology. <http://www.boundles.com/psychologytextbooks>.
- Carson R. & Butcher N. (1992), *Abnormal Psychology and Modern Life*, Harper Collins New York publications.
- Douglas, O.B. & Holland, B.F. (1947), *Fundamental of Educational Psychology*. Macmillan, New York.
- Fatima, A. (2013), *Human Behaviour from Islamic Perspective: Interactions of Nature- Nurture and Spiritual Dimension*. The American Journal Islamic Social Sciences.
- Gottfried, A.W. (1984) *Home Environment and Early Cognitive Development*. San Francisco: Academic.
- Jencks, D. (1972) *Inequality: A Reassessment of the Effect of Family and Schooling in America*. New York: Basic Books.
- Loehlin, J.C., Lindzey, G. & Spuhler, J.N. (1975) *Race Difference in Intelligence*. San Francisco.
- Mangal, S.K. (2012a), *Advanced Educational Psychology*. PHI Learning Private Limited, New-Delhi, India.
- Mangal, S.K. (2012b), *Essential of Educational Psychology*. PHI Learning Private Limited, New-Delhi, India.
- McIver, R.M. & Page, C.H. (1949), *Society an Introductory Analysis*. Macmillan, London.
- Muhammad B. I. Sahih Bukhari *Volume Seven Book 62 No. 27*.
- Muhammad B. I. Sahih Bukhari *Volume Two, Book 64 No. 27*.

- Myers, D. G. (2013), *Psychology*, Holland, Michigan: Worth.
- Munsinger, H.A. (1978), *The Adopted Child's IQ: A Crucial Review*.
Psychological Bulletin.
- Noor, N. M. (2012), *Teaching and Learning Psychology from the Islamic perspective*, IIUM Press, Kuala Lumpur.
- Schiff, M. (1978), *Intellectual Status of Working Class Children Adopted Early into Upper Middle Class Families*.
- Sherman, M. & Key, C.B. (1932), *The Intelligent of Isolated Mountain Children*. Child development.
- Teasdale, T.W. & Owen, D.R. (1984) *Heredity and Familial Environment in Intelligence and Educational Level*.
- Woodworth, R.S. and Marquis, D.G. (1948), *Psychology*. Henry Holt, New York.