



Left-handedness: A Virtue or a Vice

Bentina Alawari Mathias

Department of Sociology/Anthropology, Nnamdi Azikiwe University, Awka
mb.alawari@unizik.edu.ng

Abstract

The hand is a very important part of the body. This is because it is used for various active activities. A handless man is incomplete because he will not be able to do various things in the society. There are four types of handedness: left-handedness, right-handedness. Being left handed is often culturally perceived as an abnormal occurrence in that a majority of the world population uses their right hand. This study examined the concept of left handedness in African traditional society using Nnamdi Azikiwe University as its study area. Fifty-seven students were purposively selected from three Faculties of the University. The instrument for data collection was the indept interview (IDI). Analysis was descriptive. Findings showed that the lefties see themselves as special people and wish to promote the use of the left hand. Recommendations were made, which includes: enlightenment at the grass root that will disabuse the negative perceptions about the use of the left hand.

Keywords: left-handedness, right-handedness, vice, virtue.

Introduction

The hand is a very important part of the body. It is one of the sense organs. It is used to perform various activities. Without the hands, an individual may not be able to eat, bath, wash, write, drive, pick things from the table or ground etc. Handedness is an individual preference for use of a hand, known as the dominant hand (Holder, 2002). Handedness is not a discrete variable (right or left), but a continuous one that can be expressed at levels between strong left and strong right (Annett, 2002).

There are four types of handedness: left-handedness, right-handedness, mixed-handedness, and ambidexterity (Holder, 2002). Left-handedness is less common than right-handedness. Left-handed people are more skillful with their left hands when performing tasks. Studies suggest that approximately 10% of the world population is left-handed (Hardyck and Petrinovich (1977). Left-handedness is somewhat more common among men than among women (Papadatou-Pastou, Martin, Munafo and Jones (2008).

Right-handedness is most common. Right-handed people are more skillful with their right hands when performing tasks. Studies suggest that 88–92% of the world population is right-handed (Holder, 1997). Cross-dominance or mixed-handedness is the change of hand preference between tasks. This is common in the population with about a 1% prevalence (Annett, 2002).

. Ambidexterity is exceptionally rare, although it can be learned. A truly ambidextrous person is able to do any task equally well with either hand. Those who learn it still tend to favour their original dominant hand (Holder, 2000).

Ambilevous or ambisinister people demonstrate awkwardness with both hands. Ambisinistrous motor skills or a low level of dexterity may be the result of a debilitating physical condition, such as “dysgraphia”.

Being a righty or a lefty could be linked to variations in a network of genes that influence right or left asymmetries in the body and brain. For the left-handed people of the world, life isn't easy. Throughout much of history, massive stigmas attached to left-handedness meant they were singled out as everything from unclean to witches. In Medieval times, writing with your left-hand was a surefire way to be accused of being possessed by the devil; after all, the devil himself was thought to be a lefty. The world has gotten progressively more accepting of left-handed folk, but there are still some undeniable bummers associated with a left-handed proclivity: desk and spiral notebooks pose a constant battle, scissors are all but impossible to use and-according to some studies-life-expectancy might be lower than for right handed people.

What makes humanity's bias against lefties all the more unfair is that left-handed people are born that way. In fact, scientists have speculated for years that a single gene could control a left-right preference in humans. Unfortunately, they just couldn't pinpoint exactly where the gene might lie (Geiling, 2013).

The specific objectives of this study are:

1. To examine why some people are left handed.
2. To find out if left handedness is genetic.
3. To examine the perception of left handed persons about themselves.
4. To examine the public perception about left handedness.
5. To suggest how negative perception about left handedness can be reduced.

Theoretical Orientation

This study is anchored on developmental theories of handedness. The developmental theories are several theories of how handedness develops in individual humans. These theories were developed by Titus Ernstoff in his study of the psychosexual characteristics of man and woman exposed prenatally to diethylstilbestrol. The theories are of the view

that occurrences during prenatal development may be important; researchers studied fetuses in uterus and determined that handedness in the womb was a very accurate predictor of handedness after birth (Hepper and Peter 2013). In a 2013 study, 39% of infants (6 to 14 months) and 97% of toddlers (18 to 24 months) demonstrated a hand preference (Nelson, Campbell and Michel 2013). Other aspect of the developmental theories includes the followings:

Division of labour

One common theory, as to how handedness affects the hemispheres, is the brain hemisphere division of labor. Since speaking and handiwork require fine motor skills, its presumption is that it would be more efficient to have one brain hemisphere do both, rather than having it divided up. Since in most people, the left side of the brain controls speaking, right-handedness predominates. This theory also predicts that left-handed people have a reversed brain division of labour (Banich, 1997)

Verbal processing in right-handed individuals takes place mostly in the left hemisphere, whereas visuospatial processing is mostly done in the opposite hemisphere. Left-handed individuals have a heterogeneous brain organization in which their brain hemisphere is either organized in the same way as right-handers (but with the hemispheres reversed) or even such that both hemispheres are used for verbal processing. When the average is taken across all types of left-handedness, it shows that left-handers a lateralized (Banich, 1997)

Genetic factors

Handedness displays a complex inheritance pattern. For example, if both parents of a child are left-handed, there is a 26% chance of that child being left-handed (Mc Manus, 2003). A large study of twins from 25,732 families by Medland et al. (2006) has indicated that the heritability of handedness is roughly 24% [12].

Prenatal vestibular asymmetry

Previc, after reviewing a large number of studies, found evidence that the position of the fetus in the final trimester and a baby's subsequent birth position can affect handedness. About two-thirds of fetuses present with their left occiput (back of the head) at birth. This partly explains why prematurity results in a decrease in right-handedness. Previc argues that asymmetric prenatal positioning creates asymmetric stimulation of the vestibular system, which is involved in the development of handedness. In fact, every major disorder in which patients show reduced right-hemisphere handedness is associated with either vestibular abnormalities or delay and asymmetry of the vestibular cortex is strongly correlated with the direction of handedness (Dieterich, Bense, Lutz, Drzezga, Stephan, Bartenstein, and Brandt, 2003).

Review of Literature

Studies in the U.K., U.S. and Australia have revealed that left-handed people differ from right-handers by only one IQ point, which is not noteworthy ... Left-handers' brains are structured differently from right-handers' in ways that can allow them to process language, spatial relations and emotions in more diverse and potentially creative ways. Also, a slightly larger number of left-handers than right-handers are especially gifted in music and math. A study of musicians in professional orchestras found a significantly greater proportion of talented left-handers, even among those who played instruments that seem designed for right-handers, such as violins. Similarly, studies of adolescents who took tests to assess mathematical giftedness found many more left-handers in the population (McManus, 2012).

According to 2014 study right-handed people have higher cognitive skills, fewer behavioral and speech problems, less often have learning disabilities, and more often graduate their school (McManus, 2012).

Early childhood intelligence

Nelson, Campbell, and Michel studied infants and whether developing handedness during infancy correlated with language abilities in toddlers. In the article they assessed 38 infants and followed them through to 12 months and then again once they became toddlers from 18–24 months. What they discovered was that when a child developed a consistent use of its right or left hand during infancy (such as using the right hand to put the pacifier back in, or grasping random objects with the left hand), it was more likely to have superior language skills as a toddler. Children who became lateral later than infancy (i.e., when they were toddlers) showed normal development of language and had typical language scores (Nelson, Campbell, and Michel, 2014). The researchers used Bayley scales of infant and toddler development to assess all the subjects.

Health

Lower-birth-weight and complications at birth are positively correlated with left-handedness. An excess of non-right-handedness in schizophrenia is demonstrated as an empirical effect (Hirnstein and Hugdahl, 2014). One systematic review concluded: "Left-handers showed no systematic tendency to suffer from disorders of the immune system".

Scientists aren't exactly sure why some people are left-handed, but they know that genes are responsible about 25% of the time, says Yeo. Left-handedness does tend to run in families, he says, "but noticeably less than other inherited traits, like height or intelligence." In fact, identical twins, who share the same genes, can sometimes have different dominant hands. There are plenty of theories on what else might determine which

hand you write with, but many experts believe that it's kind of random, says Yeo.

One British study, the fetuses of super-stressed pregnant women were more likely to touch their faces more with their left hands than their right. This could be the first signs of a left-handed child, say the researchers. Other evidence supports that theory. In one 2008 Swedish study of moms and their 5-year-old children, women who were depressed or stressed during their pregnancies were more likely to have mixed- or left-handed kids. In other studies, babies with low birth weight, or born to older mothers, were more likely to be lefties as well (Mac-millian, 2015).

Identical twins are sometimes mirror images of each other—one twin has a mole on her right cheek and the other has a mole in the same spot on her left cheek, for instance. It was once believed that twins' genetic makeup should be "mirrored" as well—therefore, one twin should be left-handed and the other should be right. (It was also once thought that all left-handed people started out as twins, and that their righties siblings died in the womb.)

Neither of these is true, but left-handedness is about twice as common in twins than in the general population. A 1996 Belgian study found that about 21% of twins, both fraternal and identical, are left-handed.

Methodology

This study was conducted at Nnamdi Azikiwe University Awka. The university came into being as an offshoot of the defunct Anambra State University of Technology (ASUTECH). ASUTECH which was established through Law No. 7 of 30th July 1980 by the Government of the old Anambra operated as a multi-campus university, with campuses in Abakiliki, Enugu, Awka and Nnewi.

In 1991, following the split of the old Anambra State into Anambra and Enugu States, the Awka and Nnewi campuses of the former ASUTECH were constituent into Nnamdi Azikiwe University by the Anambra State Edict No.5 of November 26 1991. Nnamdi Azikiwe University was taken over by the Federal Government by Decree No. 34 of July 15, 1992. . Nnamdi Azikiwe University, Awka has a population of twenty-four thousand seven hundred and six (24,706) students for the full-time programme and twelve thousand, four hundred and seventy six (12,476) students for the part – time programme distributed into diverse range of causes during the 2014/2015 academic year (http://en.wikipedia.org/w/index.php?title=Nnamdi_Azikiwe_University).

Fifty- seven (57) left handed students were purposively selected from three faculties out of the ten faculties in the main campus. IDI was used to gather information from the participants. This reason for the use of this method was to make sure that the participant does not hear or copy what the other person said. K11 was also conducted on four parents -

2male, 2Females- who have left handed children. The duration for the research was eleven (11) months.

Findings

The age ranges of participants are from 18 to 23. They are 30 females and 27males. 27 are in 100 levels, 15 in 200levels, 15 in 300levels and 15 in 400levels of studies in the different disciplines. The study observed that the entire participant had been using their left hand from birth except one who started using the left hand as a result of accident which occurred when she was in primary six and which affect her right hand. As at then she was 11years, now she is 20.

All the respondents were born into families where they have other brothers and sisters and they are the only one that uses the left hand in the family. One of the respondents explained that her father is left handed as well as her grandmother.

On whether the use of left or right has anything to do with ones academic performance, the students were asked how many times they wrote WASC/NECO/JAMB before gaining admission into the university. Fifty (50) of the respondents wrote WASC/JAMB only once, four wrote two times. One explained that he had wanted to study law and because of it, he wrote Jamb several time before he was advised by his mother to take up the admission given to him in Faculty of Education. While two said that on their first sitting of WASC/NECO some of their subjects were not released by the examination board so they had to re-sit the examinations.

Thus, the study observed that the use of left or right hand does not have a significant influence on the academic performance of the respondents. All the respondents eat with their right hand this is because people said that it is conventional to eat with the right hand. However, one of the respondents said that she eats with both hands (200 level female, 21 years)

All the respondents shake, receive and give away things using their right hands. This is because most people will not shake or receive anything from them when they give out with their left hand. However, they all find comfortable using their left hand for every other human activity. One of the respondent noted that heavy materials are lighter when he lifts it with the left hand. 'Also when fighting a blow given with the left hand is more direct and painful than the one given with the right hand' (200 level male, 20years)

Generally, the study observed that the lefties are more comfortable using their left hands than their right hands. All the respondents admitted that people who use their left hands have better hand writing than people who use the right hand. They also admitted that the only problem they have is that they cannot keep their papers straight like their right handed counterpart and as a result they are easily spotted in any class. According to one of the respondents, 'that is what makes them very unique' (100 level female 18 years). None of

the respondents see any disadvantage or negative consequences associated with the use of the left hand. According to one of the respondents “ours is a right handed world so I complement anything that seems as disadvantage by using both hands” (400level female, 23 years).

The key informant interview (KII) conducted on a parent who has a left handed child showed that the parent made every effort to stop the child from using the left hand when she was a baby but to no avail. So she does not see anything wrong in using the left hand so far the child is normal in every affective and psychomotive behaviors (mother 48years). Another participant stated that culturally it is a taboo to use the left hand. A child is not supposed to use the left hand to receive or give something to an elder. He also said that left handed people are vulnerable for use by witches. They are self-willed, very difficult to correct though very intelligent. According to him, “do not pray to have a left handed child” (Father 50 years). Another participant of noted that it is God that left handed children behave differently (father 50). Another participant said that they are intelligent, quiet and very calculative in whatever they do. They tend to be very independent as a result of trying to adapt to a world that is largely for right handed individuals. They are also very friendly but can get angry easily (mother 36). The study observed that there is no physical difference between a left handed individual and his right handed counterpart. It also observed that most individuals who are left handed also use their right hands for basic activities like shaking their friends, eating in the public and giving or receiving things especially from elders.

Conclusion and Recommendation

The use of the left hand is a unique act especially as a majority of the world population uses their right hand. Both left and right hand are very important and useful. Using either the left or right hand does not make an individual special or less important. It is worthy to note that most world prominent leaders are left handed. Mac – Millian (2015) recorded that four (4) out of the seven (7) past US presidents are left handed. Barack Obama being the latest in the list. Also Prince Williams of England is also left handed. This study observed that left handed persons can do every other thing that a right handed person can do and in addition they are more creative as a result of having to adapt to a world that is largely for right handed individuals.

Based on the foregoing, the paper recommends that more research should be conducted by Africans especially in Nigeria on handedness to enlighten people at the grassroots the uniqueness of left handedness. This is because there is a drought of literature on handedness written by Nigerians.

References

- Annett, M. (2002). *Handedness and Brain Asymmetry*. Psychology Press.
- Banich, M (1997). *Neuropsychology: The Neural Bases of Mental Function*.
- Dieterich, M.; Bense, S.; Lutz, S.; Drzezga, A.; Stephan, T.; Bartenstein, P. & Brandt, T. (2003). Dominance for vestibular cortical function in the non-dominant hemisphere. in *Cerebral Cortex*. 13 (9): 994–1007.
- Geiling, N. (2013) Why are people Left-Handed. Smithsonian.com
- Hardyck, C,& Petrino, LF (1977). "Left-handedness". *Psychol Bulletin* 84 (3): 385–404.
- Hepper, P. G.(2013). Prenatal thumb sucking is related to postnatal handedness. School of Psychology, The Queen's University, Belfast (2013).