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Fingerprint and Intelligence- What do the Studies Rseveal?

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Abstract

A fingerprint is an impression left by the friction ridges of a human finger. A person's fingerprints are formed when they are a tiny developing baby in their mother's womb.They start to develop during 13th week and complete at around 19th week of conception. Interestingly that's the time our brain is developing as well so there is a deep connection between our brain and fingerprints. Also these fingerprints will not change with time. Dermatoglyphics is the study of dermal ridges on palms and soles. Human beings are possessing their unique blend of intelligence. Human intelligence and dermatoglyphics, both are influenced by genetic factors. Every parent wants their child to satisfy their own wish both in education and employment but in doing so we unknowingly push them towards fulfilling our own dreams whereas we forget that they are also individuals with their own potentials and talents and even dreams. There are under-performers in each career field. Students are forced into certain careers based on the peer pressure, the available resource etc. neglecting the fact that the individual potential of that individual may be absolutely different and hence it is not giving the desired results. But now the students do not have to undergo this exercise all over again instead they can now get a clear idea about what are their hidden mental and intellectual traits and their behavioural patterns and study techniques are, by just getting their Finger print analysis . Since each person's fingerprints are unique, we can understand one's innate potential, personality, and preferences by analyzing dermatoglyphics. Fingerprints are the mirrors to our inborn talents and potentials,

knacks and likings. If not recognised duly and well in time, they may remain shadowed all through a person's life. What follows next is a life full of resentments and frustrations of underperformance at work or dissatisfaction of occupation.

Keywords: *Fingerprint, Dermatoglyphics, Intelligence*

Introduction

Dermatoglyphics is the scientific study of epidermal ridge (or papillary peaks) patterns on fingers (fingerprints) and palms (palm prints).Simply it is the study of the skin patterns on fingers and hands. Each person has distinct and unique ridges on the fingers and palms that are genetically determined (Gutierrez et al., 2012 in Offei et al., 2014). Dermatoglyphic patterns are not influenced significantly after birth by environmental factors (Naffah, 1977 in Offei et al., 2014). These patterns are unique and heavily linked with one's genetic composition, and are closely related to the central nervous system. Tests based on dermatoglyphics can reveal our intrinsic qualities and talents, enhance leaning experiences by identifying learning styles, personalise academic and extra-curricular programs. They reveal hidden talents, build confidence and make academic and career choices easier (Tahseen, 2012).

The ridges and their characteristics as they appear on the fingers and palms are unique, permanent and remain unchanged throughout life (Offei et al., 2014).Different types of finger print patterns were identified by the standard method set by Cummins and Midlo 1943(Cummins&Midlo, 1943 in Kumari et al., 2014). Fourmain types of finger print patterns were classified as whorl, ulnar loop, radial loop and arch(Kumariet al., 2014). In the Henry system of classification, there are three basic fingerprint patterns: loop, whorl and arch(Henry et al., 2000).There are three main unique things in our body- fingerprints, retina, brain.There is high probability that these three are connected with each other. And scientists have found connections between fingerprints and brain by observing millions of people (Naphade, 2014).

Intelligence refers to complex bio-psychological potential of human beings to process certain kinds of information or data or input from the nature around him in a way of his own. It henceforth, involves different processes that are carried out by dedicated neural network and connectivity. It is of no doubt that different intelligences have their own characteristic neural processes (Singh&Majumdar, 2015).Dermatoglyphics evaluate one's inborn intelligences through simple biometrics, where fingerprints hold the key to your future. The concept is being touted as the next big future-mapping trend to hit the country.

Ideally aimed at schoolgoing children, the method is based on the scientific premise that the patterns on one's fingertips are in sync with the patterns on an individual's left and right brain. These in turn can point out the inborn potential of a person.

After a simple method of collecting all 10 fingerprints, the results are then collated into a detailed report based on the Theory of Multiple Intelligences — which states that everyone is intelligent in at least eight different ways and can develop each aspect of intelligence to an average level of competency. These intelligences show whether the logical skills are higher than the linguistic ones, the person will be rhythmically inclined, a naturalist or a left brain thinker (someone who analyses everything) or a right brain one (artistic) (Tahseen, 2012).

Multiple Intelligences

Human intelligence is the ability to learn, conceptualize, and derive meaning from pre-perceived consciousness from society or self and then applying reason or logic. Other cognitive abilities that may follow include ability to solve a problem, make decisions, retain in memory and using some set protocols of communication.According to Howard Gardner, intelligence was defined asa biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture. Though never peer reviewed Gardener's claim remains debatable till date he was criticized for being biased politically so as to appreciate the inherent uniqueness in every individual. Still, his works provide a new dimension altogether. Dermatoglyphic experts could relate themselves most.

When talking of multiple intelligences, mutually exclusive but effective personality types come under the scanner. Other well-established theories of intelligence including psychometric approaches of Robert Stenberg's Triarchic theory of intelligence (Sternberg& Robert,1984) ,A. R. Luria's PASS theory of intelligence(Naglieriet al., .2006) and Piaget's theory of cognitive development.(Huittet.al ,2003) have been strictly kept off the pages due to their insensitivity towards the matter of relevance. The theory of multiple intelligences focuses primarily on seven types of intelligence, namely – logical, mathematical, linguistic, spatial, kinaesthetic bodily, interpersonal, intrapersonal and musical. Later on, two more abstract kinds were included. These were natural and existential kinds of intelligences. It is anticipated that every individual has all these intelligences to some extent, but the difference lies in the pattern of how strong or weak is the understanding of them (Singh&Majumdar,2015).

Dermatoglyphics Multiple Intelligence Analysis (DMIA) is very reliable. DMIA is done by analyzing the shapes of all 10 fingerprints on 10 finger tips of an individual. DMIA gives inborn talents, basic behaviour patterns, born habits of the individual(Naphade, 2014).

Fingerprint and Intelligence

There are ample scientific evidences to suggest that the palm and fingerprints are closely associated with brain functions. For instance, the development of dermatoglyphical marking of the hand occurs at the same period the brain develops from embryonic ectoderm (Hirscha&Schweighel, 1973 in Offei et al., 2014). That is why a number of genetic diseases have

left marks on both the brain and the hand. Examples of such associations are demonstrated by the presence of Simian line and Sydney creases on the palm and mental retardation in the individuals with Down syndrome, Rubinstein-Taybi syndrome, Trisomy 18 (Edward's syndrome) and Trisomy 13 (Patau's syndrome). These individuals have delayed development, learning difficulties and/or behavioural disorders (Bagga, 1991 in Offei et.al., 2014).

According to medical science, the ridge growth takes place in synchronisation with Neocortex. The Neocortex, which is a learning system, is primarily brain's centre of intelligence. Its structural makeup has much to contribute towards an individual's ability to perceive, learn and react to an input. Intelligence is as much effected from environment as much it is present since the brain development of foetus. The dynamic structure of Neocortex changes dramatically over a lifetime (Srinivasan, 2007in Singh&Majumdar,2015). Quite interestingly, fingerprints, which develop complementary to cortex, do not alter. Though, studies have claimed to notice variations in palm prints of passive hand of a person over course of time (Hall & Lynn, 2000in Singh&Majumdar, 2015). If neurobiologists claim such a link between fingerprint ridges and cerebral cortex, intelligence is bound to reflect from fingerprint patterns. Dermatoglyphics is the science that analytically studies finger ridges or carvings. There has been quite an upheaval regarding determining learning abilities and personality type of an individual by looking at her dermal ridges, especially fingerprints. Intelligence quotient has a deep effect on people. Most of it is preconditioned. On the contrary, according to psychologist Howard Gardener there are nine different types of intelligences (Mckenzie, 2002 in Singh&Majumdar,2015).

On an average, each human being portrays three or four different types, one prominent than other. Dermatoglyphicsfocusses on analysing the intelligences that a person is born with by simply looking at dermal ridge patterns on fingers. The bilateral symmetry of cerebrum (Singh, 2010 in Singh&Majumdar, 2015)reflects upon the functionality of similarly symmetric limbs. The left part of brain controls motor and sensory mechanism and so does the right part of brain with left half of body. The major role played by Neocortex in

learning and memorizing a situation and registering consequent changes in the environment, lead a human being to an intellectually conscious being. She can counter events, reflect upon changes and variations, learn from experiences and develop measures or tools in response to events that may be favourable or fatal for survival.

The study of dermatoglyphics and intelligence can be briefly summarized in the following points.

i. The neural correlates to the various types of intelligences and personality types have a profound connection with specific areas of human brain.
ii. . The Neocortex is the connection between two differently functional brain halves. The left and right brain halves are not completely isolated from each other and so

does the logical intelligence not remain unaffected from the emotional intelligence quotient and vice versa. 3

iii. The fingerprints are the way to understand how our brain is wired up since our births. 4

iv. People can be counselled regarding their behavioural characteristics, inherent potentials, skills and knack(Singh&Majumdar,2015).

Reviewed Studies

In previous studies related to fingerprint and intelligence, each finger is connected with one brain lobe plus a specific type of intelligence and each type of fingerprint is connected with the following type of learning. Whorl-Cognitive learning.Ulnar Loop- Affective Learning.Radial Loop- Critical Thinking.Tented Arch- Enthusiastic Learning.Arch –Reflective Learning. Since 1823 scientists have discovered that finger prints and innate intelligence are related. Many studies integrate genetics, embryology, dermatoglyphics and neural sciences with multiple intelligence and also finger prints of intellectually disabled people is different from that of normal persons (Kumariet.al.,2014).

A study entitled fingerprint and academic acheivementconcluded that the students with higher number of loops and mixed pattern and/ or with lesser number of arch and whorl pattern (out of ten fingers) may perform better academically. Further, these results also indicate an association between fingerprint and academic achievement. Therefore, the knowledge of Dermatoglyphics will be much useful particularly to the teachers in identifying brilliant and poor students at the earliest and to design teaching and counselling strategies for them (Nagaraj, 2016).

A study entitled relationship between palmar dermatoglyphic pattern and academic performance of students in a Ghanaian secondary school has demonstrated a relationship between the dermatoglyphic patterns observed on the hands and students' academic performance. All things being equal, students with symmetrical palm prints performed better than those with asymmetrical palm prints. The presence of central pocket loop on any finger, particularly the ring and middle fingers, corresponds to higher academic performance (Offei et al., 2014).

A study entitled dermatoglyphics and its relation to intelligence levels of young students found that medical students are more affective learners than medical lab technician students when comparing their fingerprint (Kumari et al., 2014).

A study entitled association between finger patterns of digit II and intelligence quotient level in adolescents concluded that there is an association between some dermatoglyphic patterns observed on right digit II with IQ level in adolescents (Najafi, 2009).

Conclusion

The theory of multiple intelligence has grabbed the attention of researchers and people from every walk of life, all over the world. The role multiple intelligence plays in categorising people with highly developed intelligence into the profession that suits their innate potentials. The schools are the most benefitted. Hundreds of educational institutes all over the world have adapted a screening method based on a child's fingerprints. It guides the faculty to teach the subject in a manner he/she has been created with. Also, if it becomes known that which career prospect is most suitable for a child according to his/her prominent innate intelligence, then it becomes easier for the child to pursue such career path which in most cases, also turns out to be rewarding. Also, in most of the cases of adults, who are helplessly stuck in jobs that they are unable to relate with. Dermatoglyphics is their key to recognise their inherent potentials. It helps enterprises to hire only those who are best suitable for the job. The unnecessary pressure an individual goes through while building a career out of something he/she is not made for can be averted. Also, people with disabilities can delve into jobs that they are skilled of, from birth.

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