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Study of Correlation between Fingerprint patterns and Human Behavior

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Abstract : A fingerprint is a trace left by the friction ribs of a human finger. Fingerprint patterns are unique to each person and two are unlikely to have identical fingerprints. The fingerprint ridges created during the fetal period do not change course or orientation throughout the lifespan of the individual. Fingerprints are the mirror of our innate talents, abilities and choices. This study reveals such unique data about people born with innate quality of behavior in certain areas with use of fingerprint patterns.

Index Terms **- Finger Print Pattern, Human Behavior, Whorl, Arch, Loop.**

I. INTRODUCTION

Approved by medical experts and clinical experience have confirmed that fingerprints provide accurate analysis of human intelligence and innate ability. The human brain is composed of two morphologically symmetrical cerebral hemispheres. As for human behavior, the left hemisphere manages the logical - computational capabilities and the aspects of human life related to emotions, passion, creation, intuition, are all controlled by the nervous circuits of the right hemisphere. Beyond that, there are lobes where the brain can be functionally separated. [1]

The fingerprints and pattern of the dermal ridges are unique to each person. Fingerprints are even different between similar pairs. Discover intrinsic potential by identifying the shape and the different types of styles on the finger. Fingerprints are really closely related to a child's mental development. Fingerprints begin to develop inside the embryo from the 13th week. In fact, it forms within the 24th week. The lobes of the brain can be analyzed depending on the formation and size of the ridge present in the fingerprints.

PARTS OF HUMAN BRAIN

The human brain is made up of two morphologically symmetrical cerebral hemispheres which are Left and Right Brain. However, the capabilities of both vary. In terms of a person's behavior, the logical - computational abilities are managed by the left hemisphere while the aspects of human life that concern emotions, passion, creation, intuition, are all controlled by the neural circuits of the right hemisphere. Beyond that, there are lobes in which a brain can be functionally segmented. Based on the lobe classification, the brain can be studied as composed of frontal, upper and lower lobe, parietal, temporal and occipital lobe

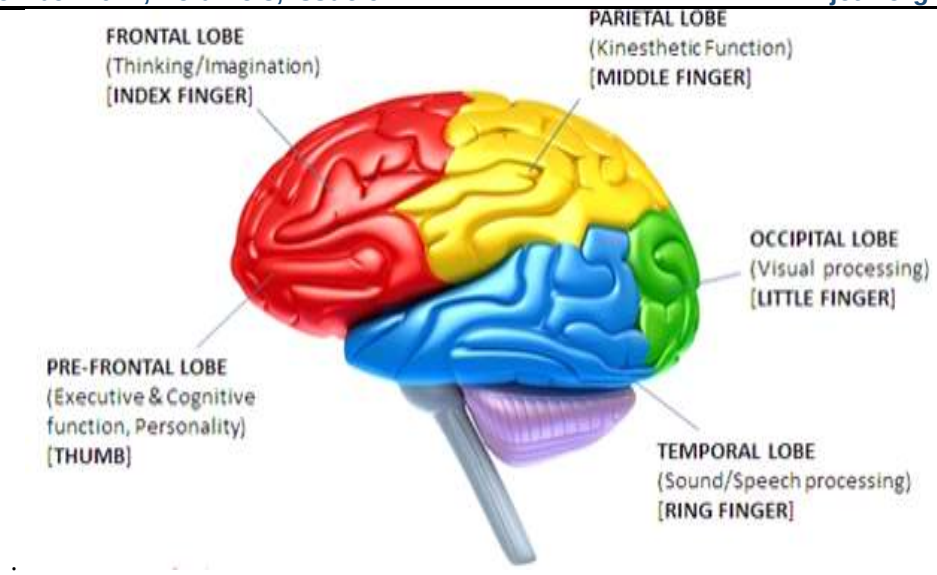

Figure: 01Connection between Human Brain and Fingers with its Human Behavior [3]

Before studying the lobes, we need to be aware of the left and right brain flaps that are responsible for them, as far as human abilities and behavior are concerned. The left hemisphere responds to academic expressions, including mathematical, computer and logical language skills. It depends with the right attitude and understanding, come to logical conclusions and judgments, it address present and present experiences, formulate sequential strategies and plans of actions, practical and methodological planning. On the other hand, people with the right brain have a natural tendency to look at things on a more holistic note. They are very casual and subjective in their thinking skills. They readily rely on emotional expressions, as they behave and believe and understand similar things. It happens to have a defined spatial vision. Adventurous and gay by nature, these people are impulsive and spontaneous by nature and take risks. Light in nature, they see possibilities when things go wrong. They are no less planned than their peers, base their actions on intuition, emotions, and fantasies and are very skilled at synthesizing concepts and ideas.

The upper frontal lobe deals with a person's ability to judge, anticipate and influence the motor organs for voluntary movement. Outside the upper frontal lobe is the lower frontal lobe which controls the bodily or kinesthetic movements of people. Fundamental physiological functions can be well understood and controlled by studying the lobes and their functions. But conceptualizing information and talent is a completely different approach. [4]

BRAIN LOBES FUNCTIONALITY

The cerebral cortex can be divided into four parts called lobes. The frontal lobe, parietal lobe, occipital lobe and temporal lobe were involved in various functions ranging from reasoning to auditory perception.[5]

1.1 The Frontal Lobe: (Thinking and Imagination)

It is located in the Front part of the brain and is involved in reasoning, problem solving, logical thinking, computational process, rationalization, language function, visual spatial imagination, thought formation and conceptualization. In the posterior part of the frontal lobe, near the central sulcus, is the cortex of the motor. The information received by the different part of the brain from the various lobes of the brain and uses information to make body movements.

1.2 The Prefrontal lobe (Mental Ability)

The front part of the frontal lobe is known as the prefrontal cortex. It is very important in determining higher cognitive functions and personality. It helps with planning, management, communication, coordination, control of our behavior and emotions. Also check our creative abilities, leadership qualities, intuition and visualization.

1.3 The Occipital Lobe (Visual Perception)

It is located in the back of the brain and is involved in the interpretation of visual and informational stimuli. The primary visual cortex, which receives and interprets information from the retinas of the eye, is located in the occipital lobe. The left controls visual recognition, observation and reading comprehension and the right side controls the ability to appreciate visual and image.

1.4 The Parietal Lobe (Kinaesthetic Ability)

It is located in the center of the brain and is involved in development of tangible sensory information such as pressure, touch and pain. A part of the brain called the somatosensory cortex is located in this lobe and is essential for processing the body's senses. It is responsible for the differentiation of movement, physical movements, the sense of operations, body mobility, rhythmic movement, muscle coordination and physical appreciation.

1.5 The Temporal Lobe (Auditory Perception)

It is located in the lower part of the brain which is located to the primary auditory cortex and also important for interpreting the sounds and language which we hear. The hippocampus is also located in the temporal lobe, which is why this part of the brain is involved in the formation of memories. The left side controls the Phonetic differentiation, the speech recognition ability and the Sound Identification ability and the right side controls the listening ability and appreciation of music. [8]

II. Relation Between Brain and Fingerprint

The human intellect is the ability to learn, conceptualize and acquire meaning from a consciousness preconceived by society or the self and then apply reason or logic. Other possible cognitive skills include the ability to solve a problem, make decisions, keep in mind and use some fixed communication protocols. People are known to communicate exclusively in verbal language. To think about it and reflect on it, a unique creation is created for man in his own terms.

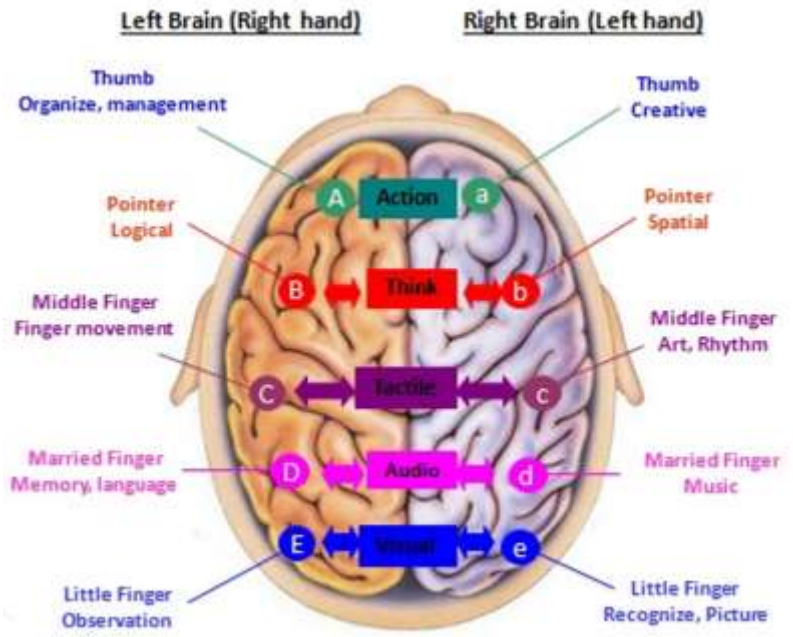

Figure: 02 Relation between Brain, Fingers and learning ability.

Fingerprints are really closely related to a child's mental development. Fingerprints usually develop during the 13th-19th week of embryo. Fingerprints begin to develop inside the embryo from the 13th week. In fact, it is formed from the 24th week. Many research papers have contributed to the link between fingerprint models and human brain lobes.

Figure: 03 Relations between Brain Lobes and Fingers.

Advanced studies in genetics and developmental biology have stated that different brackets of the human brain are physiologically connected to the different fingers of both hands. The functional coordination controlled by the left half of the cerebral hemisphere is related to the fingers of the right hand and vice versa. Thus, the reverse left half of the brain is connected to the fingers of the right hand, the thumb is coordinated by the upper frontal lobe, the index finger is connected to the lower frontal lobe, the middle finger to the parietal lobe, the ring to the tempo lobe and a little finger to the last part of the brain, which is the occipital lobe. Similarly, the left half of the brain is connected to the same brain lobes. Each area of the lobe is responsible for a certain perception in or around it. However, there is a slight difference between the functions of the left and right halves of the brain. [6]

III. FINGERPRINTS AND ITS BEHAVIOUR

Human behavior is dark in nature. It cannot be isolated like a normal mathematical model. Perhaps an example makes sense. When a project is assigned to a group of people, the task can be completed on a conservative or liberal note, as required. But every time everyone is assigned the same job, the way of dealing with the situation can be very different. Some beliefs or principles of their own would greatly influence their thinking process rather than the competing beliefs of others. Personality and behavior are so vague and so unconscious. They are manipulated, torn apart by a conscious ego, a subconscious superego as well as the unconscious id. A person has a lot of unused information that they may not be aware of. It is very important that they are recognized for their hidden talents and potential in order to help them live a more fulfilling life. Some people get caught making music like no one else can, and others do much better than others when their physical body is involved in some action. This could be playing some sports or acting on stage, they cannot achieve a high result if forced to office jobs or engineering solutions. What comes from a person, and what is best, is to recognize his innate talent and to cultivate that expectation. With professional guidance and grooming, an average person can become someone no one would ever have imagined. [7]

Fingerprint Patterns

There are mainly three fingerprint patterns such as Arch, Loop and Whorl.

3.1 Arch Pattern

People with arches on fingers demonstrated a consistent, rigid, or practical approach to corresponding tasks on brain function. Since they are organized and rigid about what and how they plan to perform a particular task, these people work in sequential steps. However, they cause them to replicate the emotional quotient in the prospect concerned. People with arc pattern prefer a simple lifestyle without too many fast-paced life ambitions to earn a business. They are skilful to do everything and they are trained to do so. They have the ability to improvise efficiently using anything around them. They don't plan much ahead of time and tend to survive in the moment. This is the real reason; they get into trouble easily because they can't imagine the impact of events. They are not much extrovert still they love to socialize with people. [9]

Figure: 04 Arch Patterns.

Ability towards traditional music has been noted among people with arch patterns. However, documentation is available on specific brain features corresponding to the thumb, index, middle and ring finger. According to it, if the arch responsible for creative information is on the left thumb, then the person is insecure in interpersonal relationships, it keeps the correspondences transparent. Discipline and punctuality have been found to be a high priority for the individual. Other than that, person was observed to have excellent professional skills and unlimited learning abilities. On the other hand, arches of the right thumb indicate patience and firmness for the organizational and management aspects of personal and professional life. If the indices finger has arches, the individual must have a practical approach in situations that require spatial as well as logical information. The left middle finger represents art and rhythmic perception, while the right one deals with finger movement and brain coordination. People with an arch pattern on their middle finger are intellectually popular for performing their favorite simple tasks, which involve making or creating sophisticated art forms.

However, the function of the brain relative to the ring finger of both hands is opposite to each other from the front. The left ring finger represents the part of the brain responsible for understanding and creating music. Surprisingly enough, the right ring finger is attached to parts of the lobe that control human memory and language skills. These people have a great mastery especially in the form of music they pursue in their careers. They showed a basic knock for the art features of simple art forms like the dance. However, there is no documentation available regarding the presence and importance of the arch on the little finger. [11]

3.2 Loop Pattern

Loops are the most common features of an individual's fingerprint and in an arbitrary sample space containing several fingerprints. They are characterized by ridges that start flowing from the fingertips, wrap around the center of the fingertip, and loop back in the same direction they started from. These loops can go towards the thumb. Due to the location of the respective wrist bones - radius and ulna, any loop that opens from the thumb is an ulnar loop, and a radial loop is the only opening towards the thumb. These people are easy to communicate with and have better communication skills. They have the potential to do well in almost every aspect. They can keep a balance between the serious and the fun side of things. They do best in jobs that require a change of location and environment due to their adaptable nature. People with right thumb loops have been observed to be caring and compassionate to others and quite human. They have a better memory for visual-spatial objects.

Figure: 05 Loop Pattern.

The loops on the left thumb, on the other hand, represent exceptional interpreters of attitude, imagination. They think and communicate directly and have little patience for a long conversation or tutorial. They tend to suffer from the existing education system. They feel compelled to ask their faculty questions that can sometimes be distorting. If a person has rings on all his fingers, that person has the ability to survive the most unfavorable conditions. However, these people hate to be sidelined and can rebel if they are not given importance in advance. If there are six or more cycles in the hands of person, this reflects the affectionate nature of against the law, who can easily understand and respond to changes in the attitude of others. They are adaptable and show emotional or relaxed plasticity. [12]

3.3 Whorl Pattern

Whorl shows the intensity of character and intelligence. The higher the number of whorls is stronger to stretch the skills in individual. In addition, the whorl pattern combined with a closer number of ridges between the delta and the core represents higher levels of understanding of the corresponding cognitive abilities and human behavior. These people with an above-average understanding of things tend to dismiss uniform office jobs and everyday occupations that require work without creativity. This type of person loves a job that involves dynamism, research, creation and not some ordinary administrative work. It is easy to face new challenges every day involving hiring new staff, implementing ideas, unconventional methods to follow the methodology, etc. These people are more focused on technical careers.

Figure: 06 Whorl Pattern

They have been found to excel in the creative fields like engineering or architecture. If the person has other types of patterns, preferably loops on the ring finger and middle finger, person has shown a taste for artistic trends. With a coherent and practical approach to life, they usually don't take life for granted. They remain productive in the careers they aim for. All whorl patterns turned out to be good speakers. Their speech takes place most of the time politically correct.

IV. CONCLUSION

Intelligence theory has attracted the attention of researchers and people from all walks of life, all over the world. Categorize the role of multidisciplinary knowledge of people with highly developed knowledge in the profession appropriate to their indigenous potential. Schools are the biggest advantages. Hundreds of educational institutions around the world have adopted a child-based fingerprint screening method. Guide the faculty to teach the subject in a way that created it. In addition, if one learns which career perspective best suits a child based on his or her strong innate knowledge, then it becomes easier for the child to take that career path which is satisfactory in most cases. In addition, in most cases for adults, who are helpfully stuck in positions they are unable to relate to, fingerprint patterns are their key to identifying their underlying potential. It helps businesses hire the best suited for the job.

Unnecessary pressure on a career can be avoided. In addition, people with disabilities can get a job that formed them right from birth. The study of human brain and fingerprint patterns can be briefly summarized in the following points. The neural correlation of various types of intelligence and personality types is deeply linked to specific areas of the human brain. The neocortex is the connection between two differently functional divide of the brain. Fingerprints are the way to understand how our brains have been wired since we were born. People can be advised on their behavioral traits, basic skills, skills and knitting.

V. REFERENCES

[1] Galton, F.: Finger Prints. McMillan, London (1892)
[2] Henry, E.: Classification and Uses of Finger Prints. Routledge, London (1900)
[3] https://dri.guru/brain-lobes-and-their-functions/
[4] Gardner, H. (1995). How Are Kids Smart: Multiple Intelligences in the Classroom— Administrators' Version. ISBN 1-887943-03-X
[5] "Discovering the Brain" by Ackerman S. Washington (DC): National Academies Press (US); 1992.
[6] Edward Campbell, Fingerprints and Behaviour: A Textbook on Fingerprints and Behavioural Correspondences (Volume 1). Amida Biometrics, L.L.C, 2012
[7] Galton F. Sir Frances Galton -1892 publication: Finger Prints. Macmillan London, UK. Sir Henry Classification System was given by Wikipedia in 2018 (1892).
[8] Rao NG. "Textbook of Forensic Medicine and Toxicology". 2nd edition. Jaypee Brothers Medical Publishers (P) Ltd (2010):95-96.
[9] Rubinov M., Sporns O. Complex network measures of brain connectivity: uses and interpretations. Neuroimage. 2010; 52:1059–1069.
[10] Anderson M.L. Describing functional diversity of brain regions and brain networks. Neuroimage. 2013; 73:50–58.
[11] Edward Campbell, Fingerprints and Behaviour: A Textbook on Fingerprints and Behavioural Correspondences (Volume 1). Amida Biometrics, L.L.C, 2012
[12] Multiple intelligences, related personality and learning types and behaviour. Available at http://dermatoglyphics.org/