

# Study on relationship between Fingers and Brain Lobes for Understanding Behavior Traits

Desai Nidhi

SDJ International College, Surat

## ABSTRACT

A fingerprint, formed by the friction ridges on a human finger, serves as a distinctive trace that is entirely unique to each individual, making the likelihood of two people having identical fingerprints highly improbable. The ridges, developed during the fetal period, maintain a consistent course and orientation throughout an individual's entire lifespan. This research aims to unveil distinctive insights into the innate qualities of behaviour in specific domains by examining fingerprint patterns, which essentially act as mirrors reflecting one's inherent talents, abilities, and choices from birth.

**Keywords** — Finger Print Pattern, Behaviour trait, Whorl, Arch, Loop.

## 1. INTRODUCTION

Medical experts and real-world experiences have shown that fingerprints are a reliable way to understand human intelligence and natural abilities. The human brain has two parts that do different things—the left side handles logical and computational skills, while the right side manages emotions, passion, creation, and intuition. Fingerprints, unique to each person, are not only different between different people but even among similar pairs.

Fingerprints start forming in the embryo around the 13th week and are fully formed by the 24th week. By looking at the patterns on fingers, we can discover a person's unique potential. The size and formation of these patterns can even give insights into different parts of the brain.

## COMPONENTS OF THE HUMAN BRAIN

The human brain consists of two symmetrical cerebral hemispheres known as the Left and Right Brain, each with distinct capabilities. Concerning human behavior, the left hemisphere manages logical and computational abilities, while the right hemisphere controls emotions, passion, creation, and intuition. Additionally, the brain is functionally segmented into lobes, including the frontal, upper and lower lobe, parietal, temporal, and occipital lobe.

Before delving into the lobes, understanding the left and right brain flaps is crucial for comprehending human abilities and behavior. The left hemisphere excels in academic expressions, handling mathematical, computer, and logical language skills. It processes information with the right attitude, formulates sequential strategies, and plans actions methodically. In contrast, individuals with a dominant right brain tend to view things holistically, relying on emotional expressions and exhibiting casual and subjective thinking. They possess defined spatial vision, are adventurous, impulsive, and spontaneous, finding possibilities even in challenging situations.

The upper frontal lobe, responsible for judgment, anticipation, and influencing voluntary movement, is complemented by the lower frontal lobe, controlling bodily or kinesthetic movements. While the lobes play a crucial role in understanding and controlling fundamental physiological functions, conceptualizing information and talent requires a distinct approach. [4]

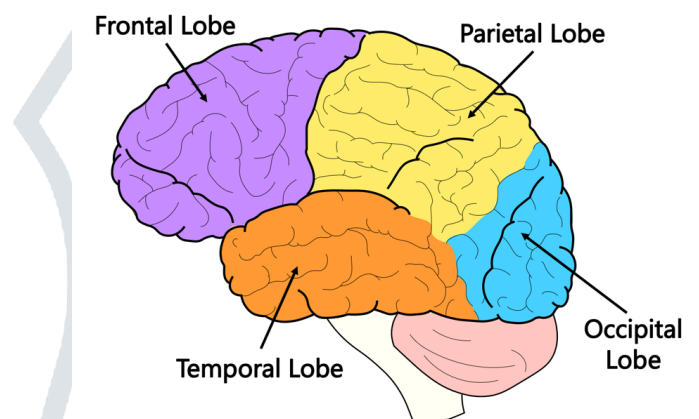


Figure 1: Human Brain Lobes

## FUNCTIONS OF BRAIN LOBES

The cerebral cortex is partitioned into four distinct sections known as lobes, each contributing to various functions, ranging from reasoning to auditory perception. [5]

### i. Frontal Lobe: (Thinking and Imagination)

- Located in the front part of the brain, the frontal lobe is responsible for reasoning, problem-solving, logical thinking, computational processes, rationalization, language function, visual spatial imagination, thought formation, and conceptualization.
- The posterior part, near the central sulcus, contains the motor cortex, coordinating information from different brain regions to control body movements.

**ii. Prefrontal Lobe (Mental Ability)**

- The front part of the frontal lobe, known as the prefrontal cortex, plays a crucial role in determining higher cognitive functions and personality.
- It contributes to planning, management, communication, coordination, behavioural and emotional control, as well as assessing creative abilities, leadership qualities, intuition, and visualization.

**iii. Occipital Lobe (Visual Perception)**

- Positioned at the back of the brain, the occipital lobe is involved in interpreting visual and informational stimuli.
- The primary visual cortex within this lobe receives and interprets information from the retinas of the eyes. The left side controls visual recognition, observation, and reading comprehension, while the right side manages the ability to appreciate visual and spatial information.

**iv. Parietal Lobe (Kinaesthetic Ability)**

- Located in the centre of the brain, the parietal lobe is responsible for processing tangible sensory information such as pressure, touch, and pain.

v. The somatosensory cortex in this lobe is essential for processing the body's senses, differentiating movement, physical sensations, body mobility, rhythmic movement, muscle coordination, and physical appreciation.

**vi. Temporal Lobe (Auditory Perception)**

- Situated in the lower part of the brain, the temporal lobe hosts the primary auditory cortex and is crucial for interpreting sounds and language.
- The hippocampus, found in the temporal lobe, plays a role in memory formation. The left side controls phonetic differentiation, speech recognition, and sound identification, while the right side manages listening ability and appreciation of music. [8]

**2. RELATION BETWEEN BRAIN AND FINGERPRINT**

Human intellect represents the capacity to learn, conceptualize, and derive meaning from consciousness shaped by society or self-awareness, followed by the application of reason or logic. Cognitive abilities also encompass problem-solving, decision-making, memory retention, and adherence to established communication protocols. While verbal language is a primary mode of communication, the unique ability to contemplate and reflect sets humans apart.

Fingerprints, intimately tied to a child's mental development, typically form between the 13th and 19th weeks of embryo development, with the process initiating around the 13th week and completing by the 24th week. Numerous research papers have explored the correlation between fingerprint patterns and human brain lobes. Advanced studies in genetics and developmental biology indicate physiological connections

between specific brain regions and fingers on both hands. The functional coordination overseen by the left cerebral hemisphere corresponds to the fingers of the right hand and vice versa.



**Figure: 2 Relations between Brain Lobes and Fingers.**

In this intricate connection, the reverse left half of the brain is linked to the fingers of the right hand, with specific lobes governing each finger: the upper frontal lobe coordinates the thumb, the lower frontal lobe is associated with the index finger, the parietal lobe influences the middle finger, the temporal lobe is connected to the ring finger, and the occipital lobe relates to the little finger. The same brain lobes on the left side are connected to the fingers on the left hand. Each lobe region is responsible for specific perceptions in or around it. Notably, subtle differences exist in the functions of the left and right halves of the brain. [6]

### 3. FINGERPRINTS AND ITS BEHAVIOUR

Human behaviour is inherently complex and cannot be neatly confined within the bounds of a typical mathematical model. Consider a scenario where a group is assigned a project – the manner in which individuals approach the task can vary significantly, influenced by their personal beliefs, principles, and unique thinking processes. Personality and behaviour, being intricate and often unconscious, are shaped by the interplay of a conscious ego, a subconscious superego, and the unconscious id.

Individuals carry a wealth of untapped information, much of which they may not be consciously aware of. Recognizing these hidden talents and potential is crucial for fostering a more fulfilling life. Some individuals excel in expressing themselves through music, while others thrive when engaged in physical activities such as sports or acting. It's important to acknowledge and cultivate these innate talents rather than forcing individuals into roles that may not align with their strengths, such as office jobs or engineering solutions.

What truly sets a person apart is the recognition and nurturing of their inherent talents. With the right professional guidance and support, an average person has the potential to transform into someone beyond anyone's initial imagination. [7]

## FINGERPRINT PATTERNS

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

### 3.1 Arch Pattern

Individuals exhibiting arches on their fingers showcase a consistent, rigid, and practical approach in performing tasks, aligning with specific brain functions. Their organized and methodical nature is evident in how they meticulously plan and execute tasks in sequential steps. This approach, however, may lead to a replication of emotional responses in relevant situations. Those with an arched pattern tend to favor a straightforward lifestyle without ambitious, fast-paced aspirations in business. They possess versatile skills and can adeptly improvise using available resources. Not inclined towards extensive pre-planning, they live in the present moment, occasionally leading them into challenges due to a lack of foresight. While not overly extroverted, they enjoy socializing with others. [9]

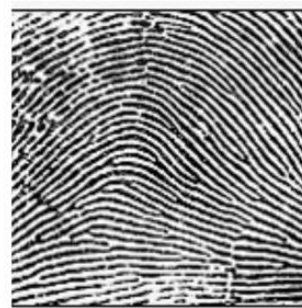


Figure: 3 Arch Patterns.

### Exploring Arched Patterns in Fingerprints

Abilities have been observed in individuals with arch patterns, with specific documentation outlining corresponding brain features for the thumb, index, middle, and ring fingers. Here's an insight into these intriguing connections:

**i. Left Thumb Arch: Creative Information**

Individuals with an arch on the left thumb may display insecurities in interpersonal relationships but maintain transparency in communications. A strong emphasis on discipline and punctuality is a notable trait. These individuals exhibit excellent professional skills and a capacity for continuous learning.

**ii. Right Thumb Arch: Patience and Firmness**

Arches on the right thumb suggest patience and firmness in handling organizational and management aspects of personal and professional life.

**iii. Index Finger Arches: Practical Approach**

If the index finger has arches, the individual tends to adopt a practical approach in situations requiring spatial and logical information.

**iv. Left Middle Finger Arch: Art and Rhythmic Perception**

The left middle finger, when featuring arches, signifies an inclination towards art and rhythmic perception.

**v. Right Middle Finger Arch: Finger Movement and Brain Coordination**

Arches on the right middle finger are associated with finger movement and brain coordination.

**vi. Ring Finger (Left): Music Understanding and Creation**

The left ring finger, surprisingly, corresponds to the part of the brain responsible for understanding and creating music.

**vii. Ring Finger (Right): Memory and Language Skills**

Conversely, the right ring finger is linked to brain regions controlling human memory and language skills. Individuals with this pattern often excel in their chosen musical careers and exhibit a natural talent for art forms like dance.

Regrettably, there is currently no available documentation regarding the presence and significance of the arch on the little finger. [11]

## 3.2 Loop Pattern

### Understanding Loop Patterns in Fingerprints

Loops are the predominant features in an individual's fingerprint, commonly found in various fingerprint samples.



Figure: 4 Loop Patterns.

Characterized by ridges flowing from the fingertips, looping around the center, and returning in the same direction, these loops may extend toward the thumb. The distinction between ulnar and radial loops is determined by the location of wrist bones – the ulna and radius.

#### i. Ulnar Loops:

Individuals with ulnar loops are adept at communication, possessing strong communication skills. They demonstrate versatility across various aspects of life and maintain a balanced approach between seriousness and enjoyment. Suited for roles requiring adaptability to changing locations and environments.

#### ii. Radial Loops (Opening Toward the Thumb):

Those with radial loops on the right thumb are noted for their caring and compassionate nature, displaying a strong human connection. Enhanced visual-spatial memory is a notable trait.

#### iii. Left Thumb Loops:

Left thumb loops indicate exceptional interpretive abilities related to attitude and imagination. Direct and succinct in thinking and communication, individuals with left thumb loops may have lower patience for prolonged conversations or tutorials. They might feel constrained by traditional educational systems and tend to seek clarity through direct questioning.

**iv. Rings on All Fingers:**

Individuals with loops on all fingers exhibit a remarkable ability to endure adverse conditions. However, they detest being overlooked and may rebel if not given due importance in advance.

**v. Six or More Loops :**

Having six or more loops indicates an affectionate nature, enabling individuals to easily comprehend and respond to shifts in others' attitudes.

These individuals are adaptable, displaying emotional flexibility and relaxation. [12]

**3.3 Whorl Loop**

Whorl patterns in fingerprints serve as intriguing indicators of character intensity and cognitive prowess, with research suggesting a correlation between the number of whorls and individual skill strength.



**Figure: 5 Whorl Patterns.**

The whorl patterns with a proximate count of ridges between the delta and the core reveals a heightened understanding of cognitive abilities and human behavior.

**i. Above-Average Understanding:**

Research indicates that individuals with an above-average understanding tend to gravitate away from conventional office roles, seeking occupations that allow for creative expression and dynamic engagement. They exhibit a proclivity for roles involving constant challenges, such as staff recruitment, innovative project implementation, and unconventional methodologies.

**ii. Artistic Inclinations:**

Studies show that individuals with alternative patterns, particularly loops on the ring and middle fingers, manifest a preference for artistic endeavors. Approaching life with coherence and practicality, these individuals consistently contribute to their chosen fields, particularly excelling in creative domains like engineering and architecture.



### iii. Effective Communication:

Research findings emphasize that individuals with whorl patterns consistently demonstrate adept communication skills, showcasing a propensity for politically correct speech.

These research-driven insights illuminate the complex interplay between fingerprint patterns and various facets of an individual's character, career preferences, and communication proficiency.

The implications extend beyond mere observation, offering a deeper understanding of the intricate connections between fingerprint patterns and individual traits. [12]

## 4. CONCLUSION

The field of intelligence theory has garnered widespread interest from researchers and individuals across diverse backgrounds globally. A crucial facet of this exploration involves categorizing individuals based on their inherent potential, aligning their highly developed knowledge with suitable professions. Educational institutions, particularly schools, have embraced child-based fingerprint screening methods, guiding faculty in tailoring their teaching approaches accordingly.

The strategic utilization of fingerprint patterns extends beyond academia. For children, identifying a career path that aligns with their innate strengths becomes more accessible, fostering greater satisfaction. Similarly, adults grappling with mismatched career choices can leverage fingerprint analysis to pinpoint their underlying potential, aiding businesses in hiring individuals best suited for specific roles and alleviating unnecessary career-related pressures.

The nexus between human brain function and fingerprint patterns reveals deep-seated connections. The neural correlation between various intelligence types and personality traits is intricately linked to specific brain areas, with the neocortex acting as a bridge between distinct functional divisions. Fingerprint analysis serves as a window into understanding the wiring of our brains since birth, offering insights into behavioral traits, fundamental skills, and unique talents.

In essence, the study of human brain and fingerprint patterns offers a holistic framework for advising individuals on their behavioural tendencies, core competencies, and areas of expertise. This multidisciplinary approach not only transforms educational practices but also contributes to more informed career choices and a better understanding of the innate potential woven into individuals from birth.

## 5. 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/>

