



The Role of The Soul in Human Social Interaction From a Physiological Point of View

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Abstract: Experts hold differing views on the roles of the soul and the brain in social interactions. Physically, the soul is the driving force behind the body's organs in engaging with others. Social interaction, a reciprocal process between individuals, can occur through activities like conversation. Speech involves various physical components such as muscles, nerves, and the brain. While the brain influences these organs via the nervous system, the brain coordinates the body's muscles and organs. However, findings suggest that the soul plays a crucial role in human interaction. It uses reason to discern right from wrong and relies on the brain to guide the body's coordination in these interactions.

Keywords: Physiological, Social Interaction, Soul

Abstrak: Para ahli memiliki pandangan yang berbeda mengenai peran jiwa dan otak dalam interaksi sosial. Dari sudut pandang fisiologis, jiwa berfungsi sebagai penggerak organ tubuh dalam interaksi manusia sehari-hari dengan orang lain. Interaksi sosial sendiri adalah kegiatan timbal balik antara individu, yang dapat dilakukan melalui berbicara. Aktivitas berbicara melibatkan organ fisik seperti otot, saraf, dan otak. Meskipun organ-organ fisik ini dipengaruhi oleh otak melalui sistem saraf yang menghubungkan otot dan organ tubuh, penelitian ini menggunakan kajian literatur untuk

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menggali pandangan filsuf dan ilmuwan tentang jiwa dan perilaku manusia. Hasil penelitian menunjukkan bahwa jiwa memiliki peran penting dalam interaksi manusia, di mana jiwa menggunakan akal untuk menentukan baik atau buruknya suatu perilaku, serta memanfaatkan otak sebagai alat untuk mengoordinasikan tubuh.

Kata kunci: fisiologis, Interaksi Sosial, Jiwa.

INTRODUCTION

The soul is considered an integral part of a human being, despite the lack of empirical evidence to confirm or deny its existence. Its presence is felt due to its strong connection with consciousness and movement, both physiologically and sociologically. However, while the soul is closely linked to behavior, its true nature and its relationship to human activities remain elusive. There is a prevailing belief that the brain is the source of all thoughts, emotions, and desires, functioning through neurotransmitters (Hewitt, L., et al., 2006). Yet, the soul is viewed as the core of human beings, governing behavior (Aristotle, 2021). For instance, when one feels regret over an action, is it the brain or the self that regrets? Naturally, it is the self (Ibn Sina, 2023). Therefore, it is not the brain but the soul that acts. This raises the question: does the soul influence human activities, and if so, what role does it play? To explore this issue, a literature review was conducted to analyze the roles of both the soul and the brain in influencing physiological processes related to social interaction.

IMPLEMENTATION METHOD

This writing focuses on a literature-based study that explores the concept of reason through various sources, including Philosophy, Religion, and Science.

RESULTS AND DISCUSSION

Soul

The soul, due to its metaphysical (supernatural) nature, cannot be directly sensed, but its existence can still be felt (Kusuma, 2022). Metaphysical entities are not bound by space and time, making them dimensionless and invisible to the physical eye. However, while they are not confined by space, they are still temporal, meaning they are bound by time. The soul comes into existence alongside the body each time a new body is created, and to sustain its existence, it requires a physical form. In other words, the soul exists

only when the body exists (Ibn Sina, 2023). Humans, as living beings, are composed of both the physical (body) and the metaphysical (soul), and it is the soul that serves as the essence of human beings, distinguishing them from other creatures created by God (Jaelani, 2000). Socrates' statement, "Gnothi Seauton (know yourself)," was further clarified by Plato, who explained that the true self refers to the essence of the self, which is the soul. The soul is thus the core of human existence.

Aristotle (384-322 BC), a philosopher from ancient Greece and a student of Plato, believed that the soul is the essence of a living being's form or body. He referred to the soul as "pneuma," which functions as the life-giving force for that creature (Aristotle, 2021). Furthermore, he viewed the soul as life itself, existing only within the body, though it is incorporeal and spreads throughout the entire being. While the body is composed of matter such as DNA, which consists of carbon (C), hydrogen (H), and nitrogen (N) atoms—ordinary material—the soul's role is to animate this molecular matter, giving it life and turning it into something organic. Thus, the soul is essentially life itself. Aristotle classified the soul into three levels: vegetative, sensitive, and moral desire, a concept later elaborated by Ibn Sina.

In the Bible, St. Paul teaches that humans are composed of spirit, soul, and body: "May the God of peace sanctify you entirely, and may your spirit, soul, and body be preserved blameless at the coming of our Lord Jesus Christ" (1 Thessalonians 5:23). This is mentioned in the context of urging Christians to prepare for the final day of judgment. St. Paul also emphasizes the spirit as an additional essential aspect of human nature.

Ibn Qayyim Al Jauziyah (1292-1350 AD) explained the distinction between the soul and spirit, stating that the spirit represents life itself. He referenced several Qur'anic verses, such as, "Consider the Day when every soul will come pleading for itself, and each will be paid in full for what it did, and none will be wronged" (An-Nahl: 111). He pointed out that the Qur'an uses different terms for the soul, sometimes referring to it as **an-nafs** or **ar-ruh**. From this, he concluded that the spirit generally equates to life and specifically is synonymous with the soul (Ibn Qayyim Al Jauziyah, 2019). Thus, the spirit and the soul are essentially the same.

Ibn Sina (980-1037 AD), a philosopher who supported Aristotle's views, argued that the soul is the source and essence of life. He stated that the essence of humans and

other living beings consists of both a body and a soul; without a soul, the body is lifeless, and without a body, the soul cannot exist, as the soul is unique to each being. The soul only comes into existence when the body is created. In causal terms, the soul is a result of the body—because the body exists, the soul exists. Ibn Sina reasoned that while a body can exist without a soul (as in a corpse), a temporal soul cannot exist without a body, as the soul requires a body to exist. He also outlined the three levels of the soul in humans, along with their respective powers (Ibn Sina, 2023).

1. **An nafs an nabatiniyah:** this level is also called the plant soul and is the basic ability of every living being, this soul has three powers:
 - A. **Al ghadziyyah:** this power is the power to process nutrients for the body such as eating and drinking.
 - B. **Al munammiyah :** this power functions as the ability to grow and develop according to the environment and genetic.
 - C. **Al muwallidah:** this power functions to pass on generations both sexually and asexually.
2. **An nafs al hayawaniyah:** this level is also called the animal soul to carry out sensory perception and will-based movements, this soul ability is only possessed by animals including humans and is a sign of physical perfection. This soul has two powers:
 - A. **Al idrak al juz'I :** also called Al mudrikah, this power regulates sensory perception, this power is further divided into two, namely external (sense) and internal (fantasy (capturing sensory stimuli), mushawwirah/retentive imagination (receiving stimuli captured by fantasy), mutakhayyilah/cognitive (combining existing stimuli), mutawahhimah/estimative (looking for meaning from the combination of stimuli), dzakirah/memory (storing the meaning that has been perceived). With this power humans can imagine death even though they have not felt it, with this power animals can learn the movement of their prey
 - B. **At taharruk bi Al iradah :** regulates movements based on desires/lust.

3. **An nafs al insaniyah** : this level according to Ibn Sina is only possessed by humans, this soul exists to think and apply the results of that thought and also to respond to stimuli more complexly.

A. **Quwwa amilah**: also called practical power functions as a driving force that comes from thought, here it is also programmed about good and bad which will be the moral basis.

B. **Quwwa alimah**: also called theoretical power functions as a vessel that produces science derived from the abstraction of perceptual stimuli given by the senses, this power is also broken down into several whose parts complement each other: Al Aql hayyulan (potential power), Al aql bi Al malakah (talent), Al Aql bi Al fi'li (actualized potential power), Al Aql Al mustafad (rational power). With this power, humans can understand something common without being taught and this is what distinguishes them from animals.

Ibn Sina divided the soul based on its abilities, with three distinct powers that complement each other. He believed that the uniqueness of humans lies in possessing these three soul powers, which together form an inseparable unity, akin to a trinity. From this, it can be concluded that the intellect is merely a tool or power that the soul uses to think. This idea was later expanded by St. Thomas Aquinas (1227-1274 AD), who divided the powers or functions of the soul into two categories (Naraha, 2011).

1. In acto sekundo: through this the soul recognizes itself and moves the body actively.
2. Intellectus: this is also called reason and it directs Man's actions towards eternal goodness and purpose (heaven).

Rene Descartes (1595-1650 AD) divided the essence of man into two:

1. Res Extensa: also called a body that becomes a machine that moves and is driven according to biological and chemical laws (L'homme machine).
2. Res Cogitans: also called mind or reason and soul which is the energy to think and be aware. By thinking of something, man will realize something (Cogito ergo sum).

This energy influences the movement of human behavior. Descartes described it as a force that propels physical actions, while Sigmund Freud categorized this driving energy into three distinct types (Freud, 2021).

1. Das es: also called “id” this energy represents the deepest desires of man, he is in charge of protecting the individual from pain, sadness, and wanting to provide comfort and pleasure that satisfies the soul, he is in the unbewußte (subconscious).
2. Das ich: also called “ego” this energy is in charge of considering the decisions made by the id and super ego, this energy represents itself being in bewußte (conscious realm)
3. Uber ich: also called “super ego” this energy is in charge of giving a warning if the ego has followed the id too far. This energy is tasked with keeping the ego in accordance with the moral demands that apply in a culture that the individual occupies.

Freud categorized these three energies as components of the soul. The id operates on the pleasure principle, seeking pleasure and shielding the ego from pain, while the superego aims to protect the ego from impulsive actions and align it with societal norms. Together, they guide the soul, but they also compete for influence over the ego, which acts as the balancing force that makes decisions between these two energies. Freud likened the ego to a rider, with the id as the horse and the superego as a road sign (Freud, 2021).

According to Freud, the ego sometimes struggles to resist the temptations of the id. To comply with the demands of the superego, the ego adopts a middle path known as the reality principle. This principle allows the ego to satisfy the id's desires while still adhering to the superego's moral standards. For example, when the id expresses a strong sexual desire, the superego acknowledges that adultery is wrong. In this case, the ego might choose to masturbate as a compromise, recognizing that following the id would bring pleasure but also guilt.

The id also employs techniques to protect the ego from distress, one of which is repression. This process involves various methods to shield the ego from sadness, hardship, and suffering, although it would be impossible to detail all of them individually.

Social Interaction

Social interaction is the process through which individuals, groups, or a combination of both connect and communicate with one another. According to Nasdian, social interaction is a social intensity that governs behavior and public relations, contributing to the formation of an orderly social structure. It involves individuals orienting themselves to others and responding to their actions or speech.

This interaction entails an act involving two or more entities that influence each other, producing significant reciprocal effects. For social interaction to occur, there must be a shared awareness; for instance, merely observing someone without their knowledge does not qualify as social interaction (Jecky, 2015).

Soerjono Soekanto (1942-1977 AD) defined social interaction as a social process concerning how individuals and groups relate to establish a system of social relationships. This type of interaction is marked by reciprocal behaviors among multiple individuals. There are various forms of social interaction, such as interactions between individuals (e.g., friends), between individuals and groups (e.g., teachers and students), and between groups (e.g., collaboration among Student Councils across schools).

Social interaction is essential to social life, as coexistence is impossible without it. From the perspectives of various experts, social interaction involves reciprocal relationships among two or more individuals, with each person playing an active role. Interaction encompasses not only the connections between the involved parties but also the influence they exert on one another.

Maintaining social interaction is crucial as it can alter behavior, meaning, and language. Through interaction, individuals can quickly and effectively understand their desires. The essence of social life lies in interaction, which is characterized by reciprocal actions. In society, individuals engage with each other through various means such as talking, listening, asking, responding, giving orders, obeying, retaliating, and inviting. Max Weber highlighted that the core of interaction is found in the mutual orientation between the involved parties, where one person's behavior is directed toward another.

Physiological discussion about Soul

Human behavior is intrinsically linked to social interaction, which requires the use of physicality. Speaking, typing, using codes, or sign language all engage physiological functions, including the muscles of the hands, tongue, lips, and facial expressions. In these interactions, physiological movements play a crucial role.

For example, during a handshake, the muscles in the hand are activated. When speaking, the cranial vagus nerve, which regulates the vocal cords and tongue muscles, sends electrical signals from the brain. These signals travel through axons and synapses to the nerves controlling the tongue muscles, such as the M. Styloglossus, M. Hyoglossus, M. Genioglossus, and M. Geniohyoideus. Each muscle must work in coordination to move the tongue, producing sound symbols that convey the speaker's intentions, known as language. Muscle cells are stimulated by electrical impulses transmitted by nerves, which receive commands from the brain via the axons of motor neurons in muscle fibers. When a stimulus reaches the terminal axon, it triggers the release of acetylcholine from synaptic vesicles. This release is regulated by the voltage-gated ion channels in the muscle cell membrane; when they encounter an electrical voltage, they change the permeability of the membrane, facilitating the diffusion of substances.

When the synaptic vesicles in the sarcolemma are activated by electrical impulses from the nerves, the cell membrane responds by allowing sodium (Na) and potassium (K) ions to flow in and out, creating an action potential (a change in the membrane due to nerve stimulation) across the muscle cell and T tubules. This leads to the release of calcium (Ca) ions from the terminal cisternae of the sarcoplasmic reticulum. The calcium ions bind to troponin on the actin filaments, causing a shift in tropomyosin and enabling cross-bridging between actin and myosin, facilitated by ATP hydrolysis. This process results in muscle contraction, shortening and thickening the muscle and causing movement (Guyton, 1995).

In conclusion, muscle movement is controlled by nerves that operate under the brain's direction. However, it raises the question of whether the brain is governed by something else, such as consciousness, which Freud associated with the soul. If the signals that control muscle movement originate from the brain, where does the brain derive its initiative?

Scientific understanding suggests that commands originate from consciousness, which is located in the brain's cortex (Sewards, 2000). In lower vertebrates, such as reptiles, fish, birds, and certain rodents, consciousness is situated in the optic tectum, where visual stimuli from the eyes are processed via the optic nerve. However, this does not equate to consciousness; even animals without eyes, like worms, possess their own form of awareness, while starfish, lacking a brain, also demonstrate consciousness. The cranial nerve is responsible for transmitting sensory stimuli to the brain for identification, as Ibn Sina noted. The senses—two eyes, two ears, a nose, and a tongue—function as sensors of the external environment, referred to as **al-idrak al-juz'i**, and the knowledge-capturing capacity known as **al-mudrikah** processes these external stimuli through internal faculties (Ibn Sina, 2023).

Thus, it seems impossible for consciousness to reside solely in the brain, as animals without brains can still exhibit consciousness. Freud acknowledged that consciousness is rooted in the soul, yet the empirical location of the soul and its method of organizing the brain remain unclear. What is empirically recognized is that when the soul engages in internal activities—such as thinking, dreaming, or imagining—these processes can be detected in the brain's frontal lobe. Hippocrates (460-370 BC) and Claudius Galen (129-216 BC) believed that the soul was situated in the brain, asserting that "all our pleasures, pains, sorrows, and tears originate from the brain. Through the brain, we think, see, hear, and differentiate between good and bad... I maintain that the brain is the most powerful organ of the human body... thus, I affirm that the brain interprets consciousness" (Hippocrates: *On the Holy Sickness*, quoted by Prioreschi, 1996).

The idea of the soul's connection to the brain reemerged following the surgical work of Dr. Wilder Penfield (1891–1976), a Canadian neurosurgeon renowned for his innovative treatments for epilepsy. During surgeries on patients with hard-to-treat epilepsy, Penfield kept them awake and stimulated specific areas of the brain to identify those responsible for seizures. He found that electrical stimulation of certain brain regions often elicited vivid memories from the patients' pasts, suggesting that the brain could manifest metaphysical experiences.

On September 1, 1953, Dr. William Beecher Scoville conducted a bilateral mesial temporal lobe resection on a patient known as HM in medical literature, leading to

significant damage to crucial limbic structures and resulting in permanent memory loss (Scoville, 1957). Roger Walcott Sperry's experiments on splitting the human brain demonstrated that the two hemispheres could operate almost independently, functioning as if they were two separate personalities (Sperry, 1981). However, due to the inherent limitations in researching the soul, which is a metaphysical entity beyond the bounds of space and time, Charles Scott Sherrington (1857–1952) concluded that the soul could not be examined through materialistic, empirical methods (Sherrington, 1971). It is clear that the brain cannot govern itself; rather, an entity—specifically the soul, along with its rational capabilities—plays a crucial role in moral consideration (Ibn Sina, 2023).

Philosophers contend that moral concepts of good and bad are acquired through socialization. Ibn Sina posited that these moral concepts are inherently programmed into the soul's power of **Quwwa Amilah** (Ibn Sina, 2023). Steven Pinker (born 1954) argued against the Tabula Rasa theory, suggesting that if infants were born with completely empty minds and souls, they would be incapable of any action or learning. He emphasized that the human mind consists of a complex interplay of concepts, asserting that the mind cannot be empty at birth if it is to integrate these concepts (Pinker, 2003).

This aligns with the saying of Allah and the hadith of Prophet Muhammad SAW: “Every child is born in a state of fitrah. His parents will make him Jewish, Christian, or Magian (Zoroastrian)” (Bukhari, no. 1385). According to Shaykh Muhammad Naquib Al-Attas (1931), this verse indicates that human nature is rooted in worship. Worship, as defined by the Webster Dictionary, entails showing respect and submission to a supernatural entity, which can refer to God, gods, or even other humans. Through worship, individuals are likely to adhere to the commands of the entity they revere. One of these commands is to “Love your neighbor as yourself; there is no other commandment greater than these” (Mark 12:31). By loving God, a person submits to His will and obeys His directives. Thus, the moral concepts of good and evil are ingrained in every human soul and governed by ethical principles.

CONCLUSION

. The soul is crucial in social interactions. Sherrington noted that the exact location of the soul cannot be determined since it is a metaphysical entity that lacks a physical presence (Sherrington, 1971). In social contexts, the soul serves as a moral compass for

individuals; according to Ibn Sina, concepts of good and bad are embedded within the soul's power of **Quwwa Amilah** (Ibn Sina, 2023). Through the intellect, the soul enables humans to discern right from wrong, allowing them to make choices and take responsibility for their actions.

Consequently, further research is necessary to explore the connection between the psyche and the ability to communicate and interact within society, particularly in relation to varying social conditions.

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