



Connections and Schemas of the Human Mind

Ritualizing the Quran seriously hinders our ability to understand its message

BY SYED IMTIAZ AHMAD

CULTURES THROUGHOUT HISTORY have speculated about the nature of the brain, mind, heart and soul. The question is how does the brain become a mind through mental processes? In the realm of psychology, the term *psyche* appeared in Greek philosophy as early as the sixth century BCE.

Judeo-Christian-Islamic traditions characterize the human mind as possessing a temperament with opposing spirits that either accept or reject the truth of what God has revealed. Al-Razi (d. 925) and Ibn Sina (d. 1037) developed a philosophy of the body-mind relationship: If the *nafs* (psyche, spirit) becomes ill, the body may also find no joy in life and eventually become ill itself.

Contemporary psychology holds that the brain consists of microscopic cells (neurons) and that the countless connections among them form a network. The accompanying sub-networks (schemas) provide a framework for mental processes. But how does this framework, which gives each human being his or her distinct behavioral characteristics, develop and evolve?

The story begins when a child is in a mother's womb. This is the start of an innate temperament (*ruh*) unique to each child, one that can be viewed as the child's initial identity (soul). Within this context is the concept of *tabula rasa* (blank state) — that

the human mind comes without innate ideas because ideas, which emerge from the combination of experiences and sensations, are formed only after the mental processes have taken place. A child's temperament develops while in its mother's womb and, after birth, initially through hearing and then moving on to seeing, smelling, tasting, and touching; it develops within the context of the innate temperament and evolving mental framework.

Michael Gazzaniga, author of "Who is In Charge? Free Will and the Science of the Brain" (Ecco, 2011), points out how our behavior develops based on how we use our free will, given our innate temperament. Free will allows us to make facultative intentional or unintentional choices in response to the situations we encounter. It all depends on what we see as the purpose or the meaning of life. "Do not just take what life gives you; think about the life you want to live" (Gazzaniga, "Who is In Charge? 2011). Sensations and experience combine to form ideas, a mental framework. The favored ideas stay in the consciousness, whereas the dissimilar ideas resist one another and become conflicted. Psychologist B. F. Skinner (d. 1990) said, "Behavior is shaped by positive and negative reinforcements."

The secular world offers no hopeful message as regards the human mind. Religions

contain a varying amount of guidance on personal accountability. We must behave responsibly by asking how our actions may affect ourselves and others. Our behavior depends on how we nurture ourselves — or allow ourselves to be nurtured — by our environment.

Islam classifies the human spirit (*nafs*) as commanding or impulsive (*nafs ammara*), self-reproaching (*nafs lawwama*) and reassured (*nafs mutma'inna*). The first one urges us to satisfy whatever desire may come to mind, the second one tells us to recognize and correct wrongful behavior, and the third one potentiates the right choices and inhibits the wrong choices based on our mind's schema of belief as to what pleases ourselves and others.

Given this, how can we develop a positive mental framework and positive emotions, avoid low self-esteem and achieve stress-free satisfaction? Psychology offers *rehearsal*, which it defines as engaging in mental repetition and practice to produce the desired behavior. This procedure, which requires presenting moral values through stories to facilitate understanding and practicing values, is also the Quranic approach. Its readers cannot help but notice its emphasis on continuous remembrance of those concepts and practices for mental development that best potentiate our innate temperament, reflecting again and again on what our surrounding environment presents to us and developing behavior that is consistent with our innate faculties. According to studies in human psychology, all of these are achievable goals.

As noted above, our brain is comprised of billions of neurons and connections that form a network with sub-networks of schemas based on the mental processes that occur as a result of sensory inputs and experiences. Each cell can receive input from

external senses and stored experiences, recall and process stored information, produce outputs that affect external senses and send signals to other cells that form a cooperating mechanism. Neurons enable memory, emotion and abstract thought, as well as basic reflexes. A neuron's ability to process and propagate depends upon its structure and ability to generate electrical and chemical signals. While different neurons may have different shapes, all neurons have the same signaling abilities.

These neural networks' amazing malleability allows the mind to adapt to changes in the environment (i.e., neural plasticity). A neuron is a dynamic entity that can acquire new or modified behavior via appropriate training (i.e., rehearsal). Neurons and existing connections enable us to adapt, which naturally has important implications. Individual experiences rearrange and reorganize connections, thereby leading to the formation of a unique self. As one grows, sensations give way to a cognitive take where objects, people and events acquire a personalized meaning. The brain reorganizes itself by forming new neural connections and schemas throughout one's life in response to changes in the environment, environmental stimuli, thoughts and feelings.

THE QURAN: GUIDANCE IN TOTALITY

The guidance for developing behavior that accords with our faculties, as well as benefits our self and society, is available in many scriptures, expositions on religion and writings on human psychology. In his groundbreaking "Ethico-Religious Concepts in the Qur'an" (McGill-Queen's University Press, 2002), Toshihiko Izutsu highlighted the Quran's ethico-religious concepts. We present some of them here.

In addition to urging us to acquire knowledge, the Quran points out that ignorance of one's faculties and their associated capabilities is the main reason for wrongful behavior and stresses rehearsing relevant knowledge via the mental processes that shape our behavior.

Composed of verses whose words flow into each other in a way designed to form meaningful patterns, a form of rhymed prose that facilitates learning, the Quran calls upon its readers to recite them neither too loudly (impairs mental processes) nor too quietly (may fail to trigger the relevant mental processes). These verses provide guidance on the proper use of human

faculties, particularly as regards the need for us to pay attention to what we hear and see so that our mental processes can reinforce that which agrees with our mental framework and inhibit that which does not. This is called learning. The value of knowledge comes from learning that which leads to the desired practices. The Quran presents the same message again and again in varying contexts for this very purpose.

It is also a source of healing, for we often end up hurting ourselves by doing something wrong and only realizing it later on. Thus,

have ritualized Islam to such an extent that we believe in, but no longer understand, rituals in terms of human development. We say that God is sovereign above all else, but our words and actions may not be in accord. We often neglect the mental processes needed to understand and learn what the Quran is actually telling us. We are in 'ajilah, as the Quran says, moving with what the environment brings toward us without taking the time to pause and reflect on what it all means.


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we should constantly ask ourselves whether we would have said or done certain things if we had had the time to think them through before doing them. This is how one's mind matures, and such reflection is an integral feature of neuroplasticity. The act of being contrite leads to a mental process of healing, develops one's ability to engage in such an action and relieves stresses that could lead to mental or physical ailments. Moreover, it strengthens our ability to recover and resist undesired prompts.

The Quran cultivates us so that we can gradually learn how to distinguish right from wrong by affirming the truthfulness of what we hear and see. As we may fail to figure these things out correctly, we must find a way to authenticate them so that our mental processes don't produce flawed learning. It also emphasizes engaging in good deeds so that our mental processes will lead to goodness within. Our value does not come from what we think of ourselves, but from how others value us.

So why aren't contemporary Muslims benefiting from this guidance? A simple answer is that for the last few centuries we

forming actions according to a prescribed order; however, its substance lies in engaging the mind with their meaning(s). An extreme form of ritualization loses that substance. Consider the five daily prayers. The key words used therein recognize that God is entirely merciful in sending guidance to shape our life, seeking God's help in the time of our need, committing to act on His guidance and seeking His assurance that our actions will always be rightly guided. If we ignore the meaning of these words — an intentional mental *rehearsal* for shaping our behavior — and fail to appreciate the accompanying actions' value, how can these rituals help the mental processes shape the desired behavior? 

Dr. Syed Imtiaz Ahmad, emeritus professor at Eastern Michigan University, is Chair of Operations Management (Governing) Board at the Jahangirabad Institute Technology, India.

He has served as ISNA vice president and president of ISNA; ISNA Canada vice president and president; president, Computer Science Association of Canada; president, Association of Pakistani Scientists and Engineers, USA; president, Pakistan Canada Association, as well as president, Windsor Islamic Association, and chair of ISNA Canada School Board.