

# Recent Findings about Morality as an Evolution Model: A Brief Overview

*Samah Khaled Zahran\**

Personality and Social Psychologist, Ain Shams University- Cairo- Egypt

## \*Corresponding author:

*Samah Khaled Zahran*

Personality and Social Psychologist, Ain Shams University-  
Cairo- Egypt

E-mail: prof.dr.samahkz@gmail.com

**Received :** March 23, 2023

**Published :** April 14, 2023

## ABSTRACT

This is a brief overview about the biology of moral behavior, representing a short glance at morality; its definitions from different perspectives, and the most common recent findings about it as a biological adaptive behavior among creatures. Then conclude by the inductive, deductive method the author's hypothesis or perspective.

**Keywords:** Morality, adaptive behavior, evolution model of mortality

## What is Morality?

Morality refers to the set of standards that enable people to live cooperatively in groups. It's what societies determine to be "right" and "acceptable." [1].

Morality also is a set of codes and rules that enable one or a group to judge rights, welfare, and justice. It may be a sense or intuition that discriminates between normative and moral behaviors, which guide people to act correctly. Philosophers often employ a conception of morality in the descriptive sense to argue for a conception of morality in the normative sense. (Wong, D., Page1:2013) [2].

## Moral Intelligence

Morality in psychology discusses moral behavior as intelligence.

Moral intelligence is the competence of applying moral principles to individual goals, values, and behaviors. Developing moral intelligence would result in more healthy and positive individuals and social systems. Moral intelligence can be defined as the cognitive capacity to specify how universal rules (integrity, responsibility, compassion, forgiveness) are used. Moral competence is the ability to behave according to moral principles. Acceptance of moral intelligence as a specific type of intelligence is a new approach and Borba explains moral intelligence as the ability to distinguish right from wrong. According to his point of view, moral intelligence contains empathy, awareness, self-control, respect, politeness,

tolerance, and fairness (Borba, 2001) [3]. And researches show that immoral behaviors increase many negative behaviors like suicide, infanticide, forcing behavior, alcohol and drug addiction, distractibility, hyperactivity and depression. (Bozaci, I. 2014: 306-308) [4].

### Moral in Biology and As Evolutional Model

Curry, O. S. and his collages, in their paper suggested morality as moral molecules, a compensation system of biological and cultural solutions to the problems of cooperation recurrent in human social life. (Curry, O. S. and others: 2022: 1039) [5].

They show that seven simple moral 'elements' (family values, group loyalty, reciprocity, heroism, deference, fairness, and property rights) combine to form 21 moral 'molecules' (fraternity, blood revenge, family pride, filial piety, gavelkind, primogeniture,

friendship, patriotism, tribute, diplomacy, common ownership, honor, confession, turn taking, restitution, modesty, mercy, munificence, arbitration, mendicancy, and queuing). These findings indicate that morality – like many other physical, biological, psychological, and cultural systems – is indeed a combinatorial system, composed of elements that include the seven types of cooperation identified by the theory of morality-as-cooperation. (Curry, O. S. and others: 2022: 1050) [5].

Schaik, CV, and his collages suggested in their book chapter in 2014, morality as a biological adaptation and evolutionary model based on the human lifestyle. (Schaik, C.V. and others: 2014: 65) [6].

For Darwin, morals are like any branch of natural history. (Schaik, C.V. and others: 2014: 69) [6].

Human infants show very early empathy and cooperation, in their few early months, so that other creatures. This means that we have innate prosaic tendencies as an adaptive behavior to culture.

The study of morality is increasingly an interdisciplinary endeavor spanning the cognitive, social, and biological sciences. A number of brain regions and systems are identified that appear to be essential for normal moral behavior. The evolution of the mammalian brain marks the emergence of social values of the kind we associate with morality. When mammalian offspring are born, they depend for survival on

the mother. So, the mammalian brain has to be organized to do something completely new: take care of others in much the way she takes care of her-self. (Menz, M.f. 2011: 608-620) [7].

Humans have an innate moral sense based on a neuro-moral network centered in the ventromedial prefrontal cortex and its connections.

The neuro-moral network works through moral emotions and moral drives, such as the avoidance of harm to others and the need for fairness and punishment of violators; it includes self-other conjoining processes, such as Theory of Mind and empathy, which also involve the ventromedial prefrontal cortex, disorders of this region, such as focal lesions or front temporal dementia, disturb personal, intrinsic moral emotions and decision-making.

Clinicians must recognize and manage “acquired sociopathy” and other dyes moral behaviors associated with disorders of the neuro moral network. (Menz, M.f. 2011: 608-620) [7].

We, humans, call ethics or morality depends on four brain processes: caring, learning by imitation, recognition of others, and problem-solving in a social context. (Churchland, P.S.: 2013: 283-296) [8].

In mammals, the hypothalamus secretes oxytocin, which triggers a cascade of events with the end result that the mother is powerfully attached to her offspring; she wants to have the offspring close and warm and fed. The hypothalamus also secretes vasopressin, which triggers a different cascade of events so that the mother protects offspring, defending them against predators, for example. The lineage of oxytocin and vasopressin goes back about 500 million years, long before mammals began to appear. In reptiles, these nonapeptides play various roles in fluid regulation and in reproductive processes. (Churchland, P.S.: 2013: 283-296) [9].

When animals are on high alert against danger, when they are preparing to fight or flee, stress hormones are high and oxytocin levels are low. The capacity for moral behavior is rooted in the neurobiology of sociality, and in mammals depends on nonapeptides oxytocin and vasopressin, as well as on elaborated cortical structures that interface with the more ancient structures mediating motivation, reward, and emotion. The neural mechanisms supporting social behavior are tuned up epigenetically by social interactions, by learning

the social practices of the group, and by figuring out how to best deal with new social problems. (Churchland, P.S.: 2013: 283-296) [9].

### **To Conclude the Author's Hypothesis or Perspective about Morality**

Moral behaviors are not restricted to humans and human culture. They are innate among creatures. In mammals, as humans, this behavior has its neural network; chemical hormones that are exceeded and decreased among situations. Studying this neuronal circular network in nature among creatures through the evolution process will support developing morals as cooperative, caring behavior, in natural ways, instead of all anti-social behaviors that oppose human civilization development.

### **REFERENCES**

1. <https://www.verywellmind.com/what-is-morality-50761601>
2. Wong D. (2013). Definition of Morality. In: The International Encyclopedia of Ethics.
3. Borba M. (2001). Building Moral Intelligence: The Seven Essential Virtues that Teach Kids to Do the Right Thing.
4. Bozaci I. (2014). Moral Intelligence and Sustainable Consumption: A Field Research on Young Consumers.
5. Curry OS, Alfano M, Brandt MJ, Pelican C. (2022). Moral molecules, Morality as a Combinational system. Review of philosophy and psychology.
6. Schaik CV. (2014). Empirically Informed Ethics: Morality between Facts and Norms, 65 Library of Ethics and Applied Philosophy.
7. Mendz MF. (2009). The Neurobiology of Moral Behavior: Review and Neuropsychiatric Implications. *CNS Spectr.* 14(11):608–620.
8. Churchland PS. (2013). The neurobiological platform for moral values. *Behavior.* 151: 283-296.