



“The starry heavens above me and the moral law within me”: a brief reflection on the freedom of choice about the volume by Lucifora and Vicario

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Abstract

“Il Cervello Morale” (The Moral Brain), a book written by Chiara Lucifora and Carmelo Mario Vicario and published by Franco Angeli in 2023, serves as a foundation for a new reflection on morality and freedom of choice. Among the various topics addressed in the volume, one particularly interesting theme is moral conscience, which manifests itself in both reasoning and behaviour, and is examined through disciplines such as philosophy, psychology, neuroscience, and even artificial intelligence.

Keywords: Cognitive Science; Moral philosophy; Artificial intelligence; Moral brain

Introduction

“Two things fill the mind with ever new and increasing admiration and reverence, the more often and more steadily one reflects on them: the starry heavens above me and the moral law within me”. This is one of the most famous (and quoted) parts of *Critique of Practical Reason* by Immanuel Kant. The starry sky and the moral law fill the philosopher’s soul with an admiration and veneration that never end since they are the symbol of reason that understands beyond the intellect. Studies on ethics, moral reasoning, behaviour, judgment, and thus freedom to act are as old as mankind, since they concern concrete life, relationships, and immersion in society, they have fascinated philosophers and writers for centuries and nowadays even scientists.

“Il Cervello Morale” (The Moral Brain), a book written by Chiara Lucifora and Carmelo Mario Vicario and published by Franco Angeli in 2023, serves as a foundation for a new reflection on morality and freedom of choice. (cfr. Figure 1). Among the various topics addressed in the volume, one particularly interesting theme is moral conscience, which manifests itself in both reasoning and behaviour, and is examined through disciplines such as philosophy, psychology, neuroscience, and even artificial intelligence.

The authors, Lucifora, who is a researcher in General Psychology and professor of Neuroethics at the University of Bologna, and Vicario, who is a full professor of Psychobiology and Physiological Psychology and professor of Cognitive Neuroscience at the University of Messina, offer the readers clear answers to contemporary questions on morality, through a modern approach that takes into account cognitive sciences and the examination of experimental results on the influence of executive functions and emotions on behaviour and moral reasoning, as well as an exhaustive examination of studies conducted both on healthy individuals and on patients affected by neurological and psychiatric disorders.

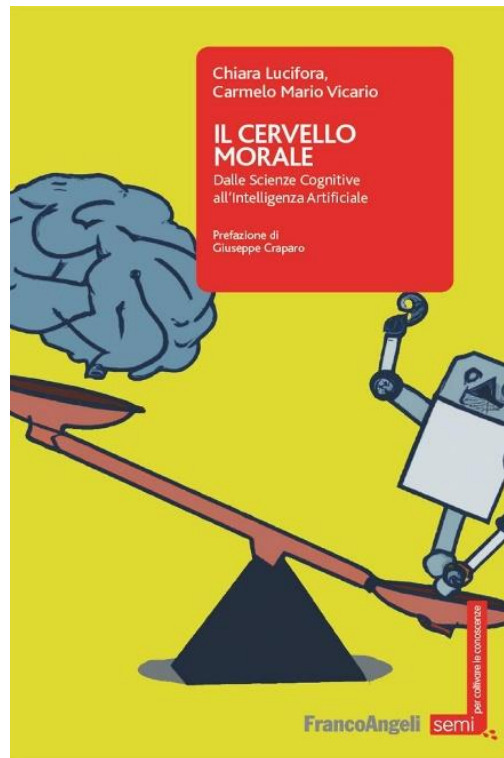


Figure 1. Chiara Lucifora e Carmelo Mario Vicario, *Il cervello Morale. Dalle Scienze Cognitive all'Intelligenza Artificiale*. Franco Angeli, 2023, pp. 126.

Virtue and morality in ancient times

Studies on morality, specifically moral virtue, were food for thought for the Greeks. Whereas Plato saw the *thymoeidés* (Plato, *The Republic*) as a mediator between the passionate dimension (inclined to desire) and the rational one (projected towards reason), Aristotle speaks of “right measure,” and mediation, known as *mesòtes*, which is considered to be the moral virtue that would lead man to happiness. (Aristotle, *Nicomachean Ethics*). If we focus on these assumptions, we understand that according to ancient thought virtue guides choice, which can fall into arbitrariness if it is undetermined.

It is complex to discuss moral virtue, which is meant as something that every man is called upon to pursue and achieve, constantly confronting passions, on one side, and the judgment of reason on the other. But it is precisely moral virtue that is the basis of human action and the existential phenomenon of choice, it is a moment of decision-making that, thanks to its planning, looks to the future while reworking the past. In the Middle Ages and according to Thomas Aquinas, “*ciò che muove la scelta non è il contenuto scelto, né la scelta stessa, bensì il (precedente) dinamismo permanente attivo della volontà, di cui la scelta è declinazione*” (“what moves choice is not the content chosen, nor the choice itself, but the (previous) permanent active dynamism of the will, and choice is its declination”) (Pagani, 2008, p. 11) since “*proprium liberi arbitrii est electio: ex hoc enim liberi arbitrii esse dicimur, quod possumus unum recipere, alio recusato, quod est eligere. Et ideo naturam liberi arbitrii ex electione considerare oportet*” (Saint Thomas Aquinas, *The Summa*



theologica, I q.83 a.3) namely “the proper act of free-will is choice: for we say that we have a free-will because we can take one thing while refusing another; and this is to choose. Therefore, we must consider the nature of free-will by considering the nature of choice.” If we consider a dialectical relationship between intellect and will, the latter is projected towards a kind of good suggested by the former but, at the same time, it is free to choose among the types of good proposed by the intellect because it is open to absolute good. For Saint Thomas Aquinas: the will tends to its object according to the order of reason, since the cognitive faculty presents its object to the appetitive faculty. Therefore, the act by which the will tends to a thing presented as good, being ordered to its purpose by reason, belongs materially to the will and formally to the reason (Saint Thomas Aquinas, *The Summa Theologica*, I-II, q. 13, a. 1).

The choice is the basis of free will, so it could be concluded that rationality is the cause of freedom.

Is it possible to talk about the freedom of choice?

“I call that thing *free*, which exists solely by the necessity of its nature and is determined to action by itself alone. I call a thing *necessary*, [or rather compelled,] when it is determined by another to exist and act according to a certain and definite law”. (Spinoza, 1677, p. 74)

Spinoza expounded this concept in the seventeenth century thinking that only God, the one and infinite substance, fulfills both conditions required for freedom. According to Spinoza freedom coincides with necessity (substance is both freedom and necessity at the same time), is thus not opposed to necessity, but to compulsion, and is also intended as the determination of oneself solely by oneself; compulsion, which is typical of limited modes (and man), is instead the determination of oneself by other.

Numerous studies have been devoted to the Kantian reception (and rereading) of Spinoza in the last century, it has been noted that “*alla condanna delle tesi spinoziste che emerge da una lettura solo superficiale degli enunciati kantiani, fanno riscontro, molto spesso, delle significative e inattese convergenze se ci si pone dal punto di vista dell’enunciazione*” (“the condemnation of Spinoza’s theses that emerges from a superficial reading of Kantian utterances is very often matched by significant and unexpected convergences if we focus on the utterance”) (Campo, 2020, p. 431). In the Third Antinomy of *Critique of Pure Reason*, published in 1781 and later revised in 1787, Kant reflects on freedom.

Among the four debated antinomies, the third one relates to freedom. The thesis states: “Causality in accordance with laws of nature is not the only one from which all the appearances of the world can be derived. It is also necessary to assume another causality through freedom in order to explain them.” We read in the antithesis: “There is no freedom, but everything in the world happens solely in accordance with laws of nature.” (Kant, 1787, p. 484-485).

If freedom exists, it is compatible with the laws of nature because it does not belong to the knowledge domain but is a noumenon or only something thinkable. Moral good is not a subjectivist will of the individual, so it is not tied to empirical interests; it tends to universal interests, that is, to the freedom of the self, to the noumenal man, and not to the phenomenal man. Authentic freedom is



transcendental freedom or freedom as the idea of reason. Kant returns to this matter in *Critique of Practical Reason* of 1788. The philosopher no longer speaks of knowledge but of postulates, by introducing the categorical imperative, the maxim of the reason that the individual can claim or hope to universalise. At this juncture, freedom is an implication of the moral law: observing the moral law shows that freedom exists.

A contemporary vision

However, is a man totally free or determined in his actions and choices? And, if he is not totally free, is he responsible for his actions and choices?

Nowadays, not only Philosophy but also Psychology and Neuroscience are interested in morality, specifically in distinguishing good from evil, moving towards experiments based on evolutionism, physical and social environment, and Biology. Also interesting are the interdisciplinary studies of Neuroethics, basically a naturalised ethics and a current point of correlation between moral philosophy and the natural sciences. According to Gazzaniga, who is one of the leading exponents in the field of emerging studies, Neuroethics is “an effort to come up with a brain-based philosophy of life” (Gazzaniga, 2005, p. XV) and thus analyses social issues such as illness, normality, mortality, and lifestyle. Neuroethics, if examined in its two specificities, which are Ethics of Neuroscience and Neuroscience of Ethics, studies both the correlates of moral behaviour and choice and the moral dimension of neuroscientific methods and the brain mechanisms involved in moral cognition. During the conference “Neuroethics: Mapping the Field” that took place in California in 2012, it was defined as the study of the ethical, legal, and social issues that arise when scientific discoveries about the brain are brought into medical practice, legal interpretation, or health and social policy. These discoveries are occurring in the genetics, brain imaging, and disease diagnosis and prediction fields. Neuroethics has a role to play in examining how doctors, lawyers, insurers, and politicians, as well as the public, deal with these issues.

The assumptions also seem interesting in identifying the neural correlates of moral behaviour. Recent studies attempt to explain this topic, not only theoretically but also based on new brain visualisation techniques such as fMRI, functional magnetic resonance imaging, PET, positron emission tomography, and targeted clinical observations: deviant moral behaviour could be caused by neural abnormalities.

The moral brain?

Are our choices relevant to morality or not? There are various answers: we distinguish between a consequentialist theory based on the achievement of the greater good, the theory of the virtues, which has its foundations in Aristotle and is based on the conquest of happiness through virtue, and the deontological theory that is traced back to Kant. According to Kant, the choice, correct or not, is not about the consequences of actions, but whether or not to respect what is considered ‘good’, hence the fundamental rights and duties of individuals, which are considered as universal laws by the philosopher.



Current questions also concern the neurobiological processes of morality and, at this juncture, Lucifora and Vicario's well-constructed and multifaceted research delves into the concept of the moral brain, hence ethics and moral conscience from various aspects and points of view. An interdisciplinary perspective is employed with a narrative that, starting from neurobiological processes, comprehensively arrives at artificial intelligence, not forgetting references to philosophy and (social and cognitive) psychology.

The search for the neural correlates of moral behaviour that deal with the causal connections occurring during a hypothetical choice, which have been examined through recent studies and brain visualisation techniques, has revealed that everything concerning morality resides in our neurobiology, even though society (politics, schooling, education, family, justice, etc.) manages to modify, and probably direct our actions. Even the moral dilemmas described in the volume and the determining role of cognition, affectivity, and motivation on behaviour and reasoning, make us understand how complex it is to reflect on the concept of morality without thinking about the neural correlates involved in the judgment and processing of contents. The most striking and original examples that support the examination and are shown in the final part of the book, are moral dilemmas that can occur in real and everyday life and concern self-driving systems and artificial intelligence, especially ChatGPT (OpenAI's chatbox), highlighting, in the former case “le differenze tra ciò che gli esseri umani pensano sia moralmente corretto alla guida di un veicolo e le scelte morali che intraprendono in una situazione più realistica” namely “the differences between what humans think is morally correct when driving a vehicle and the moral choices they make in a more realistic situation” (Lucifora - Vicario, 2023, p. 78) and, for the latter, how much - and how - our actions, even in the case of intimate and personal choices, can be influenced by artificial intelligence.

Are we free when we make a choice? *Il cervello morale* described by Lucifora and Vicario makes us reflect on this and other questions that have tormented mankind for centuries, giving a new insight to ponder even to the least expert readers despite the scientific approach.

Conflicts of Interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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