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Morality

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OPINION

MORALITY

An Illusion Constructed by Our Brain



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Through the evolution of society and the growth of religion, a false paradigm has been built that there exists universal values. Yet, these “universal values” do not have characteristics that are inherently right or wrong - they are subjective value systems that do not hold true for everyone. Instead, each individual has his or her own value system. Thus, the judgment of right and wrong is based on the individual and carries no more significance than another person’s opinion. Our understanding of subjective perception suggests that morality is nothing more than an illusion constructed by our brain.

Society’s view of morality can be broken down into two camps of thought: moral realists and moral relativists. Or as Geoffrey Goodwin calls it, ethical objectivists and ethical subjectivists, respectively: “ethical objectivists [are] individuals who take their ethical beliefs to express true facts about the world [and] ethical subjectivists [are] individuals who take their ethical beliefs to be mind-dependent, and to express nothing more than facts about human psychology.” In other words, if one believes that it is universally wrong to murder another human being, neither contextual nor cultural differences will change that person’s judgment; they believe in an objective truth. While subjectivists weigh out context and relevant cultural norms and then gauge how morally wrong an act is.

Much of neuroscience has gone the route of understanding morality as subjective. That is, there is no inherent objective moral value system outside in the world, so in order to study morality we need to study the brain and how it makes moral judgments. In other words, we need to understand what goes into making moral judgments. It has been well established that it is both cognitive and emotional systems that play a crucial role in making moral judgments.^{2,3,4} The interaction between these systems is what makes morality; in of itself it is not a unique domain that can be localized in the brain. Thus, current neuroscience research studies morality as a construct of the whole brain.

Many theories have been proposed, argued and invalidated or

validated about which processes are implicated during moral reasoning. Joshua Greene states that different moral judgments require different systems in the mind and brain. He teases apart moral judgments to be either deontological or consequentialist: “deontological moral judgments [are] associated with concerns for “rights” and “duties” and are driven by automatic emotional responses, while consequentialist moral judgments [are] judgments aimed at promoting the “greater good” [and] are driven by more controlled cognitive processes.”⁵ This is a plausible theory, that both reason and emotions play a crucial role in the development of moral judgment. Jorge Moll has postulated a different system: Event-feature-emotion complex framework (EFEC) which argues that a sense of morality is created due to a combination of three specific elements: (1) structured event knowledge (2) social perceptual and functional properties and (3) central motivational states.⁶ This framework implicates cognitive and emotional systems but also our perception of our environment.

Regardless of the vague understanding of the exact processes underlying moral reasoning, many researchers in this field have conducted experiments that have stemmed from studying cognitive and emotional correlates to specific areas in the brain and what functions these systems perform in moral reasoning and the construction of moral judgments.

Amitai Shenhav and Greene found that similar neural circuitry is activated during moral judgments and during decision making, specifically in reward and punishment cases.⁷ This neural circuitry is clearly not only activated when making moral judgments and has been implicated in other decision making paradigms; this holds true that it is input from a variety of cognitive systems that play into making moral judgments.

Moreover, Borg and colleagues revealed specific neural activity in participants when probed with moral dilemmas. When harm was not an issue (similar amount of harm in either decision) the dorsolateral prefrontal cortex (cognitive) was significantly activated; when level of harm caused was different depending on the participant’s choice

and when intentional harm was a factor, there was significant activity in orbitofrontal cortex (associated with cognition) and temporal lobe (associated with emotion).⁸ Harm is but one factor that is considered when making moral judgments, although this research implicates certain areas of activation, it is specific activation probably due to the property of the moral dilemma, harm.

Similarly, Rebecca Saxe and Liane Young found that the right temporal parietal junction (RTPJ), an area that has been shown to be especially activated when considering other people (theory of mind), is dependently activated when making moral judgments.⁹ This makes sense since moral reasoning relies on understanding another's intents or beliefs.

When individuals with frontal-temporal dementia (FTD), who exhibit social and psychological impairments such as emotional blunting and a decrease in empathy, were studied with moral paradigms, interesting results were found. FTD patients are unable to adequately empathize with another person or even understand what goes on in another person's mind; these emotional and cognitive elements are necessary in making moral judgments.¹⁰ More importantly, FTD patients exhibited abnormal moral behavior, mainly do to their lack of emotional substrates, specifically the ventromedial prefrontal cortex (VMPFC); it was evident that individuals with lesions in this area exhibited significant abnormality in their moral judgments.¹¹

Disgust also influences moral judgments. Simone Schnall found that by manipulating the levels of disgust in the outside world (making a room smell or making the area immediately surrounding them dirty), individuals were harsher in their ratings of moral dilemmas. Similar results were found when Thalia Wheatly and Jonathon Haidt hypnotized individuals, unconsciously inducing feelings of disgust with a trigger and found that when disgust was induced individuals judged moral dilemmas more harshly.¹² Although, neither of these experiments are specifically studying what neural correlates are implicated, they do show that external influences, in particular disgust (but other negative valence and high arousal stimuli should be tested) influence moral judgments. Disgust seems to be one example of the many inputs to the moral judgment-making processes.

As one further delves in understanding what physically underlies moral reasoning, and begins to disambiguate a phenomena that has been written about since Aristotle¹³ and studied since Jean Piaget, many questions start to come to the surface: If morality is subjective, do we no longer have moral responsibility? Why does our brain construct morality?

Many writers have provided plausible answers for such questions that neuroscience has unintentionally raised. Eliezer Sternberg argues that the brain is not as determined as it may seem because it is defined by neural correlates that do not determine our behavior but rather influences it.¹⁴ This gives way for much flexibility in our actions and keeps in mind that we are not hard-wired that we have no free will. Patricia Churchland adds that we are adaptive animals and respond flexibly in relation to our environment not just reflexively which gives way for flexibility of action and does not diminish moral responsibility.¹⁵

Moreover, our society has become largely more complex over time, requiring a more complex moral system to advance in order for us to cooperate with one another.

The claim that morality is merely an illusion constructed by our brain may be a welcomed idea to some but an unthinkable and unacceptable claim to many. With the continuous research work of neuroscientists and psychologists studying morality we will have a better grasp of this construct and one day it will be rightly thought of as a neural system, similar to how we now think of memory as a function of the brain that has its certain inputs and processes and is constructed by the brain and not inherent to the world. Just as there is no objective memory - we all remember situations differently, the same with morality - there is no objective truth, we all have our subjective moral values.

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