Advances in Cognitive Sciences
Vol 24, No. 1, Spring 2022
Research Article
Pages 1-11

The results of the dual-process hypothesis for normative ethics: A critical analysis

Omid Karimzadeh[1*]

1. Assistant Professor of Philosophy, the Institute for Fundamental Research in Science and Technology, Shahid Beheshti University, Tehran, Iran

Recieved: 11 Jan. 2022
Revised: 31 Jan. 2022
Accepted: 14 Feb. 2022

Keywords
Dual-process hypothesis
Consequentialism
Deontology
Emotional parts of the brain
Cognitive parts of the brain

Corresponding author
Omid Karimzadeh, Assistant Professor of Philosophy, the Institute for Fundamental Research in Science and Technology, Shahid Beheshti University, Shahriari Square, Evin, Tehran, Iran

Email: O_karimzadeh@sbu.ac.ir

doi.org/10.30514/icss.24.1.1

Abstract

Introduction: Since the methods of scanning brains have been fundamentally developed in recent years through the fMRI technology, some researchers in the fields of cognitive science and neuroscience have found the opportunity to investigate people's brains by this new method when some moral, aesthetic, or spiritual experiences are taking place for those people.

Methods: One of the most important experiments of this kind is the one Joshua Greene et al. performed in the department of psychology at Harvard University.

Results: First of all, they introduced a hypothesis called Dual-Process Hypothesis and then set up an experiment to confirm this hypothesis. In the next step, they derived some normative conclusions about the relevance of consequentialism and deontology in normative moral philosophy. According to this conclusion, moral consequentialist intuitions should be considered relevant in making normative ethical judgments because they are caused by the activity of cognitive parts of the brain. In contrast, moral deontological intuitions (and the correspondent deontological judgments) should be ignored since the activity of emotional parts causes them. Greene et al. also claimed that they had derived a moral normative conclusion from some purely descriptive assumptions.

Conclusion: In this paper, after describing the experiment and its methodology, four different claims derived distinguished from Greene's experiment and showed that just one of them can be confirmed. The argument called for the insignificance of Greene's experiment as an "order-changing argument". The paper ends with the conclusion that Greene's neuroscientific experiment lacks any normative importance for moral theories.

Citation: Karimzadeh O. The results of the dual-process hypothesis for normative ethics: A critical analysis. Advances in Cognitive Sciences. 2022;24(1):1-11.

Extended Abstract

Introduction

Since the methods of scanning brains have been fundamentally developed in recent years through the fMRI technology, some researchers in the fields of cognitive science and neuroscience have found the opportunity to investigate people's brains by this new method when some moral, aesthetic, or spiritual experiences are taking place for those people. One of the most important experiments of this kind is the one Joshua Greene et al. have

done in the department of psychology at Harvard University. First of all, they introduced a hypothesis called dual-process hypothesis and then set up an experiment to confirm this hypothesis. According to dual-process hypothesis, characteristically deontological judgments are driven by emotional processes, whereas cognitive processes drive characteristically consequential judgments and these processes compete for one's overall moral verdict about a given case. After confirming the dual-process hypothesis by experimental findings, Greene et al. claim that this hypothesis should be considered as evidence for the judgment that the consequentialist moral theories should be preferred over deontological moral ones.

Methods

This paper is mainly based on the study of the original and primary written sources on this issue and has tried to obtain some specific results about the descriptive and normative aspects of Greene's experiment and its methodology through the methods of conceptual analysis and philosophical arguments in the ways, which are usual in contemporary philosophy of mind and moral philosophy in the analytical tradition.

Results

As mentioned earlier, Greene et al. then argue that they are justified in deriving some normative conclusions about the relevance of consequentialism and deontology in normative moral philosophy. According to this conclusion, moral consequentialist intuitions should be considered relevant in making normative ethical judgments because they are caused by the activity of cognitive parts of the brain. In contrast, moral deontological intuitions (and the correspondent deontological judgments) should be ignored since the activity of emotional parts causes them. Greene and his colleagues also claimed that they had derived a moral normative conclusion from some purely descriptive assumptions.

By putting Greene's arguments and claims under scrutiny, four different claims about normative ethics were distinguished in Greene's neuroscientific project. According to the first claim, consequentialist intuitions are caused by cognitive parts of the brain, whereas deontological intuitions are caused by emotional parts. The second claim is that consequentialist moral intuitions are essential from a normative ethical point of view and, therefore, should be respected and be employed in order to making correspondent consequentialist moral judgments. The third claim is that deontological moral intuitions are unimportant from an ethical point of view and, therefore, should be ignored. In other words, moral judgments, which are based upon the deontological moral intuitions should not be considered as justified judgments. According to the fourth claim, Greene and his colleagues have been successful in deriving some normative moral conclusions on the basis of purely descriptive assumptions. In other words, they have derived "out" from "is". From this study's point of view, just the first claim is acceptable, and all three other claims should be rejected. The argument called for rejecting the second and third claims as an "order-changing argument". According to Greene's argument, when people are confronted with the first moral scenario -Trolley Dilemma- in the experiment, the cognitive parts of their brains are activated. This activation causes the correspondent consequentialist moral judgments about the scenario. On the other hand, when people are confronted with the second moral scenario –the Footbridge Dilemma- the emotional parts of their brains are activated, and this activation causes the correspondent deontological moral judgments about the scenario. Then Greene et al. state that those factors that added to the first scenario and transformed it into the second one are morally irrelevant factors. If this is so, people's deontological moral intuitions are caused by the influence

of some irrelevant moral factors and, therefore, should be ignored. The order-changing argument says that if we change the order of introducing two scenarios, then the contrary conclusion can be derived. This means that if people are first confronted with the Footbridge scenario, their moral deontological intuitions are activated. Then by adding some irrelevant moral factors to the Footbridge scenario, we can turn it into a Trolley dilemma. Now, so the argument goes, we can say that the activation of the consequentialist moral intuitions in the Trolley dilemma is result from some irrelevant moral factors and, therefore, should be ignored. The order-changing argument shows that Greene's second and third claims are unacceptable. In the case of the fourth claim, the current study has shown that the claim should be considered as begging the question. Contrary to the claim Greene et al. have made, they really do not derive a normative moral conclusion on the basis of just descriptive neuroscientific assumptions. There is at least one normative assumption in their argument that the added factors that turned "Trolley Dilemma" into "Footbridge Scenario" are morally irrelevant. The claim of irrelevance here is actually a normative assumption. So it is this assumption that reappears in the conclusion of the argument as a normative claim. This means that the fourth claim is a kind of begging the question and, therefore, should be rejected.

Conclusion

The paper shows that among the four different claims, the author identified that just the first one is acceptable, and the other three normative ones should be rejected. Since the first claim is entirely descriptive, it can be concluded that Greene's neuroscientific experiment lacks any normative importance for moral theories.

Ethical Considerations

Compliance with ethical guidelines

There are no ethical considerations in the research relevant to this study.

Authors' contributions

The author of this paper has not received any contribution in the process of writing.

Funding

No financial support has been received from any organization for this study.

Acknowledgments

The author appreciates the help of anonymous referees of the journal.

Conflict of interest

This study did not have any conflict of interest.