

Dual-Process Theory Explains Distorted Decision Making in Obsessive-Compulsive Disorder

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Short Communication

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DESCRIPTION

This short commentary is written regarding the review paper “Moral judgements in obsessive-compulsive disorder: a narrative mini-review” by Hosseinzadeh M., Azhdehakosh E., and Valibeygi A. in 2020. In this paper, we reviewed the existing evidence on how and why patients suffering from Obsessive-Compulsive Disorder (OCD) are different from healthy population in making decisions and judgments in morally charged situations ^[1].

Reviewing the literature, we came up with four cognitive impairments contributing to distortion of moral decision makings in OCD patients, including impairments of cognitive executive functions, abnormal sensitivity to deontological guilt, exaggerated feeling of disgust for moral violations, and fear of taking the responsibility of a potentially wrong action ^[1]. In this commentary, I would like to focus on executive functions, as one of the main cognitive components impaired in OCD patients.

To gain a better understanding on this matter, it is essential to mention the “dual-process theory”, as a valuable theory explaining how cognitive processes work together to make decisions in various situations. According to this theory, our decisions are the result of interaction of two mental processes: the automatic, fast, intuitional process and the controlled, slow, cognitive process. The first one, as its name implies, is fast and automatic and does not require complicated and analytic intellectual reasoning. Instead, this process is based on intuitions and emotions coming to your mind immediately when you are dealing with a problem, especially when it has moral and emotional load. Domination of the intuitional process propels the individual towards making deontological decisions (i.e. prioritizing the purity of the action per se, rather than the final outcomes). On the other hand, the cognitive process is based on reasoning and deliberation. It employs cognitive and reason-based mental processes to make rational decisions. In other words, it can be concluded that the cognitive process suppresses emotions, which is fundamental for intuitive decision making ^[2,3].

Since the intuitional process in dual-process theory is fast and does not require deep analysis or reasoning, it is more cost-effective and would be easier to use for anyone! However, what differentiates an OCD brain from a normal brain in decision making is using working memory and cognitive executive abilities (e.g. cognitive flexibility and cognitive control). As discussed in our previous paper, due to overload of working memory, impaired cognitive control and impaired cognitive flexibility in OCD patients, it would be more difficult to shift from using the fast intuitive to slow reasonable process ^[4]. For instance, in the trolley problem the individual deals with the dilemma of switching the trolley’s path towards a working man who is not supposed to die, or avoid taking any action and let five working men die. When dealing with this scenario, OCD patients cannot shift their attention from the action to its consequences (due to impaired cognitive flexibility). Therefore, with automatic intuitive process coming first, they will avoid to take any action against the moral rules (i.e. introducing a threat to an innocent person), regardless of its consequences ^[5,6]. On the other hand, healthy individuals are able to shift their attention from the emotional, implicit and intuitive aspects of a scenario towards explicit and reason-based aspects, and therefore, they can make altruistic goal-focused decisions in favor of the total interest of the situation ^[4,7].

CONCLUSION

Conclusively, in this short commentary we argued how dual-process theory explains the differences between OCD patients and mentally healthy individuals in making decisions and judgments in specific situations such as moral dilemmas, in regard to dysfunction of cognitive processes in OCD patients.

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