## Peer Review

## Review of: "Awareness, Automation, and the Illusion of Free Will: Rethinking Libet through Trilogy Theory"

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This paper on consciousness by <u>Ashkan Farhadi</u> addresses the influential study by Libet<sup>1</sup>, which assumes that actions are unconscious because the motor brain potentials detected by EEG occur at such a short latency after the stimulus that the actions could not possibly be conscious. This interpretation seems to make many or most actions appear unconscious. Farhadi uses his "Trilogy Theory of Consciousness" to posit that some actions are the result of a conscious, aware decision to choose an action ("Awarenesss-Based Choice Selection)," or ABCS, whereas more automatic, repetitive actions may occur unconsciously through "Selection of Choice Based on Algorithm (SCBA), which amounts to a "Stimulus-Conditioned Behavioral Automation" for repeated actions. Another term for this unconscious brain activation is "Stimulus-Conditioned Behavioral Automation" for repeated actions.

With this distinction in mind, Libet's results could reflect an automatic selection of an action in response to the stimulus, which would be unconscious. This would be especially likely for actions that occur repetitively in response to a stimulus, when there would be no need for the action to be volitional; this does seem to apply to the repetitive actions described in Libet's experiments.

An influential theory of consciousness by Budson, Richman, and Kensinger<sup>2</sup> posits memory formation as the basis for consciousness. They use Libet's experiments to argue that most actions and decisions are unconscious. They employ the analogy of a horse and a rider; the human rider thinks that he or she has made the decision of which route to take, whereas in reality, it is the horse that chooses when and where to move. Our subjective feeling of agency in making such decisions is, by this model, just a false impression, occurring after the action or decision has already occurred. I have previously argued<sup>3</sup> that this model takes away free will and agency and makes our subjective experiences of agency just impressions that occur after the action has taken place. I am pleased that Farhadi has given us a

framework in which to preserve conscious actions and decision-making, though allowing that repetitive

actions may indeed become unconscious. Initial decisions are likely to be conscious, especially ones that

require conscious thought and decision-making, such as decisions to propose marriage or to undertake a

career.

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**Declarations** 

**Potential competing interests:** No potential competing interests to declare.