



### Contents

Editorial: Conscious of Our Consciousness -----	3
<b>Victor Ferrao</b> -----	8
Desire/Taste and the Worlds of the Internet	
<b>P.S. Beskilin Sebastin</b> -----	16
The State of Being Aware: An Introductory Study of Human Consciousness	
<b>Seby Varghese SJ.</b> -----	24
Understanding Understanding and Non-Understanding: The Problems and Possibilities	
<b>Milton Nicholasrajan</b> -----	31
Tuesdays with Morrie: The Meaning of Living and Dying	
<b>Khumtang Y Tikhir</b> -----	44
Suffering and the Emergence of Meaning in Life	
<b>Joseph Akshay</b> -----	57
Knowledge as/and Experience	



*Vidyankur: Journal of Philosophical and Theological Studies* is a peer-reviewed interdisciplinary. A bi-annual published in January and July, the journal seeks to discern wisdom in our troubled times. Inspiring and brief academic articles beneficial to the educated audience are welcome. It attempts to foster personal integration through philosophical search, theological insights, scientific openness and social concern.

#### Editorial Board

Dr Kuruvilla Pandikattu Joseph, Jnana-Deepa Vidyapeeth, Pune 411014

Dr Ginish C. Baby, Christ University, Lavasa, Pune Dt

Dr Binoy Pichalakkattu, Loyola Institute of Peace and International Studies, Kochi

Dr Samuel Richmond, Sam Higginbottom University of Agriculture, Technology & Sciences, Allahabad

Dr Shiju Sam Varughese, Central University of Gujarat, Gandhinagar

Dr Shalini Chakranarayan, Assistant Professor, English Language Institute Member, Jazan University

Ms Gargi Mukherjee, Res Scholar, Visva-Bharati University, Santiniketan

For additional Board Members, please visit

<https://www.vidyankur.in/board-members>

Publisher: Dr Kuruvilla Pandikattu Joseph

Site: [www.vidyankur.in](http://www.vidyankur.in)

Email: [indianjournal\[at\]gmail.com](mailto:indianjournal[at]gmail.com)

ISSN: 2320-9429 CODEN: VJPTAK

OCLC: 233921404 LCCN: 2008306810

Printed at Kunal Offset Press, 499 Vartak Apartment, Narayan Peth, Shaniwar Peth, Pune, 411030

Published Jnana-Deepa Vidyapeeth, Pune 411014, India



## Editorial

### Conscious of Our Consciousness

---

What is consciousness? How far is it unique to human beings? What does modern science say about it? These are some of the perennial questions that humans have been asking themselves.

Two scientific studies are pertinent in this area. In one of the studies, it is suggested that consciousness arises as an emergent property of the human mind. Yet basic questions about the precise timing, location and dynamics of the neural event(s) allowing conscious access to information are not clearly and unequivocally determined.

Some neuroscientists have even argued that consciousness may arise from a single “seat” in the brain, though the prevailing idea attributes a more global network property (Public Library of Science, 2009).

Do the neural correlates of consciousness correspond to late or early brain events following perception? Do they necessarily involve coherent activity across different regions of the brain,

<p>Cite as: Pandikattu, Kuruville. (2017). Conscious of Our Consciousness (Version 1.0) Vidyankur: Journal of Philosophical and Theological Studies. July-Dec 2017 XIX/2 <a href="http://www.doi.org/10.5281/zenodo.4739831">www.doi.org/10.5281/zenodo.4739831</a> 3-7.</p>
--

or can they be restricted to local patterns of reverberating activity?

A paper suggests that four specific, separate processes combine as a “signature” of conscious activity. By studying the neural activity of people who are presented with two different types of stimuli – one which could be perceived consciously, and one which could not – Dr Gaillard of INSERM and colleagues, show that these four processes occur only in the former, conscious perception task (Public Library of Science, 2009).

This new work addresses the neural correlates of consciousness at an unprecedented resolution, using intracerebral electrophysiological recordings of neural activity. These challenging experiments were possible because patients with epilepsy who were already undergoing medical procedures requiring implantation of recording electrodes agreed to participate in the study. The authors presented them with visually masked and unmasked printed words, then measured the changes in their brain activity and the level of awareness of seeing the words. This method offers a unique opportunity to measure neural correlates of conscious access with optimal spatial and temporal resolutions. When comparing neural activity elicited by masked and unmasked words, they could isolate four converging and complementary electrophysiological markers characterizing conscious access 300 ms after word perception.

All of these measures may provide distinct glimpses into the same distributed state of long-distance reverberation. Indeed, it seems to be the convergence of these measures in a late time window (after 300 ms), rather than the mere presence of any single one of them, which best characterizes conscious trials. “The present work suggests

that rather than hoping for a putative unique marker – the neural correlate of consciousness – a more mature view of conscious processing should consider that it relates to a brain-scale distributed pattern of coherent brain activation,” explained neuroscientist Lionel Naccache, one of the authors of the paper.

Further, in another study, some other scientists propose a new way of understanding how the brain processes unconscious information into our consciousness. According to the model, consciousness arises only in time intervals of up to 400 milliseconds, with gaps of unconsciousness in between (Ecole Polytechnique Fédérale de Lausanne. (2016).

The driver ahead suddenly stops, and you find yourself stomping on your brakes before you even realize what is going on. We would call this a reflex, but the underlying reality is much more complex, forming a debate that goes back centuries: Is consciousness a constant, uninterrupted stream or a series of discrete bits – like the 24 frames-per-second of a movie reel? Scientists from Ecole Polytechnique Fédérale de Lausanne (EPF) and the universities of Ulm and Zurich, put forward a new model of how the brain processes unconscious information, suggesting that consciousness arises only in intervals up to 400 milliseconds, with no consciousness in between.

### Continuous or Discrete?

Consciousness seems to work as a continuous stream: one image or sound or smell or touch smoothly follows the other, providing us with a continuous image of the world around us. As far as we are concerned, it seems that sensory information is continuously translated into conscious perception: we see objects move smoothly, we hear sounds continuously, and we smell and feel without interruption. However, another school of thought argues that our brain collects sensory information

only at discrete time-points, like a camera taking snapshots. Even though there is a growing body of evidence against “continuous” consciousness, it also looks like that the “discrete” theory of snapshots is too simple to be true.

### A Two-Stage Model

Michael Herzog at EPFL, working with Frank Scharnowski at the University of Zurich, have now developed a new paradigm, or “conceptual framework,” of how consciousness might really work. They did this by reviewing data from previously published psychological and behavioural experiments that aim to determine if consciousness is continuous or discrete. Such experiments can involve showing a person two images in rapid succession and asking them to distinguish between them while monitoring their brain activity.

The new model proposes a two-stage processing of information. First comes the unconscious stage: The brain processes specific features of objects, e.g. colour or shape, and analyzes them quasi-continuously and unconsciously with a very high time resolution. However, the model suggests that there is no perception of time during this unconscious processing. Even time features, such as duration or colour change, are not perceived during this period. Instead, the brain represents its duration as a kind of “number,” just as it does for colour and shape.

Then comes the conscious stage: Unconscious processing is completed, and the brain simultaneously renders all the features conscious. This produces the final “picture,” which the brain finally presents to our consciousness, making us aware of the stimulus.

The whole process, from stimulus to conscious perception, can last up to 400 milliseconds, which is a considerable delay from a physiological point of view. “The reason is that the brain wants to give you the best, clearest information it can, and this demands a substantial amount of time,” explains Michael Herzog. “There is no advantage in making you aware of its unconscious processing because that would be immensely confusing.” This model focuses on visual perception, but the time delay might be different for other sensory information, e.g. auditory or olfactory (Ecole Polytechnique Fédérale de Lausanne. 2016).

This is the first two-stage model of how consciousness arises, and it provides a more complete picture of how the brain manages consciousness than the “continuous versus discrete” debate envisages. But it especially provides useful insights into the way the brain processes time and relates it to our perception of the world.

Three of the articles in this issue explores this topic of consciousness, understanding and experience. The other related articles deal with suffering and death. May we understand ourselves, our self-identity and our self-consciousness!

The Editor

## References

- Ecole Polytechnique Fédérale de Lausanne. (2016). “How the brain produces consciousness in ‘time slices’.” ScienceDaily. ScienceDaily, 12 April 2016. <[www.sciencedaily.com/releases/2016/04/160412160346.htm](http://www.sciencedaily.com/releases/2016/04/160412160346.htm)>.
- Public Library of Science. (2009). “Where Does Consciousness Come From?.” ScienceDaily. ScienceDaily, 17 March 2009. <[www.sciencedaily.com/releases/2009/03/090316201459.htm](http://www.sciencedaily.com/releases/2009/03/090316201459.htm)>.