What if consciousness is just a product of our non-conscious brain?
21 December 2018, by Peter Halligan And David A Oakley

As the very word used to describe it has been "worn smooth by a million tongues", consciousness is a fertile topic for confusion. We all know what it is to be conscious. It is, basically, being aware of and responding to the world. Similarly, we all possess a common sense notion of how consciousness works.

But common sense can be easily confused. Consider these questions for example: if you felt pain in an amputated leg, where is the pain? If you say it is in your head, would it be in your head if your leg had not been amputated? If you say yes, then what reason have you for ever thinking you had a leg?

One source of confusion when explaining "consciousness" stems from common sense and formal accounts that frame the study of mental life. These are typically discussed in terms of a binary split between conscious intentional processes versus non-conscious involuntary processes – the latter of which are outside our awareness. When walking, for example, we have a conscious awareness of the intention to go somewhere. Yet putting one foot in front of the other is a non-conscious action.

Following this, most of us consider consciousness – our subjective awareness – to be responsible for creating and controlling our thoughts, memories and actions. At the same time, we recognise that some of these psychological processes are carried on beyond our awareness. For example, when picking up a pen we may know what we are going to write about but the selection and articulation of individual words are non-conscious processes.

The key driver behind this traditional distinction stems from our own powerful belief that causality links subjective awareness with the daily experience of appearing to have control over our thoughts, feelings and actions. Over the past 100 years, however, a growing body of evidence has begun to question this binary distinction. There is now increasing agreement that most, if not all, of the contents of our psychological processes – our thoughts, beliefs, sensations, perceptions, emotions, intentions, actions and memories – are actually formed backstage by fast and efficient non-conscious brain systems.

The non-conscious nature of being

Previously, we argued that while undeniably real, the "experience of consciousness" or subjective awareness is precisely that – awareness. No more, no less. We proposed that while consciousness is created by brain systems, it has no causal relationship with or control over mental processes. The fact that personal awareness accompanies the contents of the personal narrative is causally compelling. But it is not necessarily relevant to understanding and explaining the psychological processes underpinning them.

This quote from George Miller – one of the founders of cognitive psychology – helps explain this idea. When one recalls something from memory,
"consciousness gives no clue as to where the answer comes from; the processes that produce it are unconscious. It is the result of thinking, not the process of thinking, that appears spontaneously in consciousness."

Taking this further, we propose, that subjective awareness – the intimate signature experience of what it is like to be conscious – is itself a product of non-conscious processing. This observation, was well captured by pioneering social psychologist Daniel Wegner when he wrote that, "unconscious mechanisms create both conscious thought about action and the action, and also produce the sense of will we experience by perceiving the thought as the cause of the action".

Our proposition that both the subjective experience of consciousness (personal awareness) and associated psychological processes (thoughts, beliefs, ideas, intentions and more) are products of non-conscious processes is consistent with the fact that non-conscious automatic brain systems reliably carry out all of our core biological processes (such as respiration and digestion) efficiently, and often without our awareness.

It is also consistent with a wider prevailing observation found in the natural sciences – especially neurobiology. In this field conscious primacy is not nearly as prevalent as it is in psychology. Complex and intelligent design in living things are not assumed to be driven by conscious processes. Instead they are thought to come from adaptive processes which accrued through natural selection.

**Moving on from the divide**

If we are indeed "subjects of unconscious authoring" then continuing to characterise psychological states in terms of being conscious and non-conscious is unhelpful. It constrains the theoretical understanding of psychological processes. Furthermore, if all psychological processes and their products rely on non-conscious systems, then the idea that the brain has automatic and controlled processes needs a rethink too. It might be better to describe them as differences on a continuum of non-conscious processing, rather than alternative systems.

Such a proposal does not dispense with the common sense reality of one’s personal qualitative experience, nor with the previous findings of cognitive neuroscience. However, it offers an opportunity to reduce some of the confusion that comes with use of the terms "consciousness" and "contents of consciousness". Both of which continue to imply that consciousness has a functional role in distinguishing psychological processes.

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