

# THE BRAIN DOESN'T CREATE CONSCIOUSNESS

The reducing valve theory

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**C**onsciousness is generated by the brain, isn't it? Neuroscientists have commonly assumed so, and it is easy to understand why. Our everyday experiences are highly dependent on the brain and nervous system. For example, a stiff blow to the head knocks the living daylights out, as addled boxers can attest. Damage to the primary visual cortex at the rear of the brain shuts down conscious visual perception. Alterations to the brain's neurotransmitter chemistry through illness or psychoactive drugs impact on perception, cognition, and mood. Psychedelics, such as LSD and mescaline, can have particularly dramatic effects, ranging from superlative highs to abject lows.

Plainly consciousness—or at least consciousness as we ordinarily know it—is highly *dependent* on the brain. However, it may be a step too far to assume that consciousness is *produced* by the brain. Dependence is not the same as production. Consider some analogies. Cool, clean air flows from a conditioning unit, but the unit does not produce the air: it merely extracts air from outside, cooling it and filtering out impurities. A washbasin tap does not generate water; it just regulates the flow. Sunlight floods into a room when the blinds are opened,

but the blinds do not create light. They permit transmission of light into the room.

Analogies of this kind proved useful when, at the close of the nineteenth century, several philosophers and psychologists—notably William James, Frederic Myers, F. C. S. Schiller, and Henri Bergson—dissented from the growing physiological reductionism of the time and came up with an alternative to the production theory of brain action. This was the filter or transmission theory of brain action, or ‘filter theory’ for short. Here the brain plays a key role too, but rather than producing consciousness, it draws upon pre-existing consciousness. The operative words are filter, transmit, permit, channel, select, extract, limit, regulate, condition, modify—not produce, generate or create.

Filter theorists maintain that everyday consciousness is supported by a hidden field or ‘reservoir’ of consciousness. The idea arose at a time when the concept of ‘subconscious’ mind had been receiving much attention. Some thinkers, such as the physiologist W. B. Carpenter, understood subconscious mental activity in purely physiological terms, as ‘unconscious cerebration’, while others were willing to attribute consciousness to the subconscious. James, Myers, Pierre Janet, and others understood dual or multiple personality as evidence of hidden states of consciousness co-existent with the everyday one. This notion of ‘subliminal’ or ‘transmarginal’ consciousness promised to shed light on a diverse range of puzzling phenomena, abnormal, normal, and supernormal, from sleep walking and hysteria, through memory and dreaming, to creativity, psychical phenomena, and mystical experience.

While it may be supposed that subliminal consciousness is confined to individual minds, there is reason to think that it extends further afield, as psychical phenomena such as telepathy and clairvoyance suggest, and perhaps much further too, if cosmic mystical experiences are indicative. Hence Edward F. Kelly (2015) has given the name ROSTA or ‘Resonant Opening to Subliminal and Transpersonal Assets’ to these filter theories. Without taking a definite stand

on the reach of the subliminal, James spoke of the ‘mother sea’ of consciousness in his Ingersoll Lecture of 1897, ‘Human Immortality’, a classic exposition of filter theory. Decades later, author and thinker Aldous Huxley, who revived filter theory for the coming psychedelic generation in his mescaline-infused book *The Doors of Perception* (1954), called it ‘Mind at Large’ (Poller, 2019).

According to filter theory, ordinary or ‘supraliminal’ consciousness derives from the subliminal sea of consciousness through the limiting activity of matter—or more specifically the brain and nervous system, and associated psychological processes. These act as a filter or selector, taking some subliminal contents for inclusion in supraliminal consciousness while excluding a great deal. In Huxley’s words, the brain and nervous system act as a ‘reducing valve’ through which Mind at Large is ‘funnelled’. The selection and exclusion of subliminal contents are driven by utilitarian and survival needs: in many circumstances, only that which is immediately useful to an organism or necessary for its survival will be provided. Perception usually has to be kept narrow and focused. The filter has a protective function too, for the sheer volume of available contents would be overwhelming or the character of the contents potentially distressing. When the normal functioning of biological and psychological filters changes, say through meditative quietening of mind chatter, relaxation of the survival imperative, physical or mental trauma, and psychoactive drugs, then previously excluded contents may enter supraliminal consciousness. In this way, filter theory tries to account for a range of abnormal and supernormal phenomena.

The originators of filter theory were well aware that they had couched the theory in analogies and metaphorical language, without providing concrete details of mechanism. Their intention was to show that there is an alternative way of thinking about the functioning of the brain and nervous system, one that does not call upon brute production. While brain science of the time shed little light on filtering mechanisms, some metaphysical observations could be made. When James first presented filter theory, he expressed it in the terms of mind–

body dualism: a purely material brain filters consciousness. But he did so only to counter the prevailing type of dualism, according to which a purely material brain produces consciousness. He was open to alternative kinds of metaphysics, such as idealism and neutral monism, in which brain and consciousness are not different in kind. These non-materialist monisms have the advantage of sidestepping the mind–body problem, the difficulty of bringing a purely material brain into relation with consciousness.

Bergson took such a route. His filter theory, set out in *Matière et Mémoire* (1896), addressed normal perception and memory, drawing on the evidence of speech and memory pathologies, although he later applied it to telepathy and near-death life reviews. The metaphysical backdrop to his theory can be considered ‘neutral monist’, the basic elements of the universe being regarded as neutral with respect to mind and matter. Like the rest of the universe, the brain and body are made up of neutral ‘images’, and so perception operates through the selection of one set of images by another set that makes up brain and body (Barnard, 2011).

Filter theory continues to have value today as a philosophical antidote to the lazy assumption that the brain manufactures consciousness. At the very least, it is a heuristic device that encourages us to think more deeply about the functioning of the brain. But it could be rather more too. Efforts have been made in recent years to revive the insights of filter theorists and apply them to the more extensive and diverse empirical data now available to researchers (e.g., Kelly et al., 2007). Some of this data comes from the reinvigorated field of legally sanctioned psychedelic research, now blossoming after decades of stagnation, undertaken for therapeutic applications as well as basic neuroscientific interest.

One contemporary model of psychedelic action, called REBUS (RELaxed Beliefs Under pSychedelics), has links with the old filter theories in so far as it maintains that psychedelics work by relaxing high-level beliefs, such as the concept of self, thereby ‘liberating bottom-up information flow’, consisting of

signalling from the brain's limbic system and elsewhere (Carhart-Harris & Friston, 2019). REBUS, however, is not a filter theory of the kind discussed above, in which the relaxation of psychobiological filters taps into a subliminal consciousness. It is not a Huxleyan ROSTA model of reducing valves and Mind at Large. REBUS has no explicit place for a subliminal consciousness, never mind one that reaches beyond the individual mind and brain into the world at large. It is therefore debatable whether REBUS can engage successfully with the full range of psychedelic phenomenology, as it claims to do, especially mystical and near-death-like experiences, and parapsychological phenomena. For these, Mind at Large may have to be given a role.

The idea of consciousness beyond the brain is not quite the taboo it was when physicalist metaphysics ruled the roost. Nowadays there is vigorous discussion of alternatives to physicalism among philosophers, including panpsychism, cosmopsychism, neutral and dual-aspect monisms, and idealist monism (Marshall, 2021). The time is ripe for renewed engagement with filter theory that embraces not only neuropsychological details but metaphysical foundations too.

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