

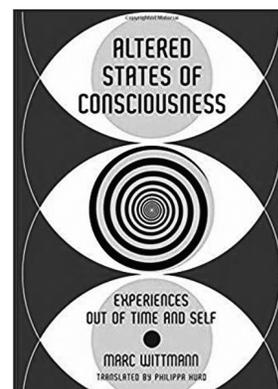
## A Kulturträger Keeps Time

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A review of *Altered States of Consciousness: Experiences out of Time and Self*, by Marc Wittmann. Pp. xiv + 176. \$24.95 (hardcover). MIT Press. ISBN780262038317

Negar la sucesión temporal, negar el yo, negar el universo astronómico, son desesperaciones aparentes y consuelos secretos. Nuestro destino... es espantoso porque es irreversible y de hierro. El tiempo es la sustancia de que estoy hecho. (To deny the succession of time, deny the self, deny the universe, reveals our apparent despair and secret consolations. Our fate... is terrifying because it is irreversible and ironclad. Time is the stuff I am made of. (Borges, 1952/2011, p. 380; translated by the reviewer)



In his disquisition on time, the Argentinian writer Jorge Luis Borges made it the ineluctable companion to the self. Similarly, in this book Marc Wittmann centers the self, and its various modalities of experiencing, within time. In this deceptively short book, the author covers, many topics, including the conditions that affect our experience of the passage of time and our recollection of what we lived before, and he integrates research from psychology and the neurosciences with philosophical and artistic musings. It is a joy to read a book that is neither monolingual (the author references sources in various languages) nor monodisciplinary (he studied psychology, philosophy, and neurosciences, and is very knowledgeable of literature, music, and other arts). At about the same time I was reading this book I came across an article on another German “Kulturträger” (someone who communicates high culture across generations; Shapin, 2019), Hermann von Helmholtz, who gave us the first exact estimate of human time by measuring in the lab nerve speed transmission (about 30 meters per second in his preparation), while also maintaining a keen interest in the arts and humanities.

Wittmann begins his book with our experience of waking up or coming out of a coma to an “empty,” core self, that can only recover itself as the influx of personal knowledge and memories fill out that emptiness. Deprived of autobiographical memory, individuals are in a dark well, desperately trying to gain some existential purchase on the smooth wall, as in the case of the neurologically damaged musician Clive Wearing (Sacks, 2007). The book’s next section, quotes a poem of the Nobelist Tranströmer,

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a personal account of another Nobelist (Sir John Eccles, a supporter of psi), and various survey and experimental studies demonstrating that during moments of danger, including brushes with death, time is experienced as expanding while mental events seem to be particularly intense, agile, and sharp; the literature on near-death-experiences is germane to this issue and Wittmann refers to it.

In the section on the effects of psychoactive drugs on felt time, Wittmann differentiates types of drugs, with stimulants giving a sense of speeded-up time and psychedelics elongating it. Or the sense of time may collapse altogether in mystical experiences. He quotes the mystic Meister Eckhart: "In eternity there is no before and after, and what happened a thousand years ago and what will happen in another thousand years is one in eternity" (p. 24). Which is no poetic embellishment. A highly hypnotizable participant expressed similarly while she was having an unsuggested transcendent experience in my lab: "Things do not happen here... here there is no time and no space" (Cardeña and Lindström, in press). In this context, Wittmann also describes how experienced time is imbricated in space, and vice versa.

In the second chapter, Wittmann concentrates on "The Moment," although it is more accurate to speak of different types of "moment." He refers to Husserl's phenomenological analysis of the experienced moment as including an *Urimpression* (what was just experienced), with its *retention* in the present moment, and the *protention* of the anticipated moment, what William James called the "specious present" (James, 1890, pp. 609-610). Research carried out by, among others, one of Wittmann's mentors has determined that typically our sense of the present moment is segmented in units of about 3 seconds (Pöppel, 1988). The duration of shorter intervals (about 30 - 300 milliseconds) determines whether two events are experienced as simultaneous ("functional moment"), and short-term and working-memory, along with reflective consciousness, establish the length of "mental presence." This can last between seconds and a few minutes (or more in alterations of consciousness or with practice of meditation), as studies reviewed by Wittmann show. This chapter also includes Heidegger's discussion of boredom as time that cannot be filled meaningfully (p. 86), but he also described how time and the self can become altered during creative activities: "I am wholly and absolutely present... what does "moment" mean here... it is an inappropriate designation" (Heidegger, 2008, in Hunt, 2019, p. 11).

The last chapter before an epilogue focuses on alterations of time and self in psycho- and neuro-pathology, and includes summaries of studies by Wittmann and others showing the insula to be an important area in the processing of time. It starts with the case of Alexandrine, a patient unable to experience her emotions or somatic signals, including thirst and hunger, and, meaningfully, lacking intrinsic awareness of the passage of time. Fascinating accounts of individuals with schizophrenia who seem to live in a perpetual "now" are cited, reminiscent of the unending loop in which the main character in Renais's film *Last Year in Marienbad* resides, as well as descriptions of transcendent experiences of time and self in epilepsy, including a description by Dostoevsky, who had the condition (for examples of models of time in literature see Cardeña & Reid, 2016). *Altered States of Consciousness* does not cover parapsychological phenomena, but Wittmann is aware of them and has contributed to the literature in precognition (Müller, Müller, & Wittmann, 2019).

As with all good conversations, I just wish that this fascinating but succinct book had lasted longer...

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