

Marc Wittmann

Marc Wittmann is a cognitive neuroscientist based in Freiburg, Germany, where he conducts research on time perception and psi phenomena.

Career

Marc Wittmann is a research fellow at the [Institut für Grenzgebiete der Psychologie und Psychohygiene - IGPP](#) (Institute for Frontier Areas in Psychology and Mental Health) in Freiburg, Germany.

Wittmann studied psychology and philosophy at the University of Fribourg in Switzerland and received his doctorate at the Institute of Medical Psychology, University of Munich. From 2000 to 2004 he was head of the Generation Research Program, Bad Tölz, University of Munich, and to 2009 he was a research fellow in the department of psychiatry at the University of California, San Diego.

He is the author of the MIT Press books *Felt Time: The Psychology of How We Perceive Time* published in 2016 and *Altered States of Consciousness: Experiences Out of Time and Self* published in 2018.

Wittmann considers himself to be an experimental psychologist and cognitive neuroscientist willing to cross conceptual boundaries and test hypotheses that are outside of the mainstream, including parapsychology. His main interest is in time consciousness, which is broad in scope, ranging from basic research in how humans perceive time to investigations of radical changes in time perception occurring in altered states of consciousness. At the extreme end, this includes phenomena in which the usual concepts of time seem not to play a role, such as in precognition.

Precognition

In 2011, [Daryl Bem](#) created controversy with his report on psi experiments that reversed the sequence of standard psychological protocols, appearing to show that reaction times can be influenced by information received in the immediate future.¹ Among many attempted replications was one by Wittmann and several co-authors on retropriming, in which an image presented to a person in an experiment is more quickly assessed as being either positive or negative in nature if the words presented afterwards are congruent with the image (negative image–negative word, or positive image–positive word) than incongruent.

In study 1 there was no main confirmatory effect. A post-hoc exploratory investigation of gender differences found that males demonstrated a positive retropriming effect ($p = 0.017$) whilst females produced a negative but non-significant retropriming effect ($p = 0.165$), a significant gender difference ($p = 0.011$). These results replicate gender effects found in other precognition studies.²

In study 2, the confirmatory hypothesis of a positive retropriming effect was not supported. On the contrary, overall reaction times were *slower* for congruent photo-

word pairs than incongruent pairs, and this was statistically significant ($p = 0.022$). Wittmann and coauthors discuss these ambivalent findings in the context of anomalous patterns of evidence that are typically found in parapsychology.³

Remote Viewing

[Remote viewing](#) is the practice of seeking impressions of a target or location distant in space and sometimes also in time.

In Wittmann and Müller's first remote viewing study, 36 subjects were asked to describe one of six photographs in a sealed envelope. Fourteen made direct hits, which is highly significant ($p < 0.0009$).⁴

In a second study published in 2019, Wittmann, together with husband and wife team Maximilian and Laura Müller, ran 48 binary associative remote viewing (ARV) trials in which the future direction (up or down) of the German stock market is used as the target. Chance would predict 24 (50%) correct predictions but overall scoring produced 38, a highly significant 79% hit rate ($p = 2.3 \times 10^{-5}$).⁵

In a third study published in 2021, Wittmann and Maximilian Müller tested remote viewing ability under two conditions: clairvoyance of binary targets in the present moment and precognition of targets that are determined randomly in the future. Using independent judging of viewers' reports, present moment remote viewing produced highly significant scoring ($p < 0.001$). Precognitive remote viewing was less successful but still significant ($p = 0.027$), the difference between the conditions being significant ($p = 0.003$). Contrary to previous research,⁶ this finding points towards a temporal dependency of psi scoring. Wittmann and Müller discuss a probabilistic understanding of the future as an explanation for these findings and other psi effects.⁷

Near-death Experiences

In a 2017 publication, Wittmann and coauthors draw attention to the widely reported experience of time-distortion during near-death experiences, notably of time slowing down. Among 196 testimonies found in the [Near Death Experience Research Foundation \(NDERF\)](#) database, 127 reported a change in the perception of time and 120 a sense of timelessness.⁸

Jung-Bender Dialogue

In 2021, Schellinger, Anton and Wittmann presented an English translation of a discussion held in 1960 between Carl Jung and Hans Bender, a German parapsychologist.⁹ Much of the discussion was of the importance of synchronicities, with Bender describing emotional experiences that coincided with the death of his mother, which unknown to him was occurring at a distant location.

Future Work

A precognition study, funded by Bial, employs EEG recordings to assess which brain regions are related to classic (non-paranormal) forward priming as well as Bem's retropriming effect. A ganzfeld psi study funded by the Society for Psychical Research seeks to confirm earlier indications¹⁰ that a green light field may act as a greater stimulant than the conventional red light.

Books

In *Felt Time: The Psychology of How We Perceive Time* (2016), Wittmann draws on the latest insights from psychology and neuroscience to examine the question of subjective time.

In *Altered States of Consciousness: Experiences Out of Time and Self* (2018), Wittmann discusses the relationship between our sense of time and altered states of consciousness such as meditative states, mystical revelations, out-of-body experiences and drug intoxication, in the light of recent neuroscientific findings.

Michael Duggan

Literature

Bem, D. (2011). [Feeling the future: Experimental evidence for anomalous retroactive influences on cognition and affect.](#) *Journal of Personality and Social Psychology* 100, 407-25.

Bem, D., Tressoldi, P., Rabeyron, T., & Duggan, M. (2016). [Feeling the future: A meta-analysis of 90 experiments on the anomalous anticipation of random future events.](#) *F1000Research* 4. 10.

Kübel, S., Fiedler, H., & Wittmann, M. (2021). [Red visual stimulation in the Ganzfeld leads to a relative overestimation of duration compared to green.](#) *PsyCh Journal* 10/1, 5-19.

Mossbridge, J., Grabowecky, M., & Suzuki, S. (2011). Physiological markers of future outcomes: Three experiments on subconscious psi perception during concurrent performance of a guessing task. *The Parapsychological Association, 54th Annual Convention Abstracts of Presented Papers* 17.

Müller, M., & Wittmann, M. (2017). [Remote Viewing: Eine Proof-of-Principle-Studie.](#) *Zeitschrift für Anomalistik* 17, 83-104.

Müller, M., Müller, L., & Wittmann, M. (2019). [Predicting the stock market: An associative remote viewing study.](#) *Zeitschrift für Anomalistik* 19, 326-46.

Müller, M., & Wittmann, M. (2021). [Anomalous Cognition in the context of time: Does the viewer describe a deterministic or a probabilistic future?](#) *Journal of Scientific Exploration* 35, 542-69.

Schellinger, U., Wittmann, M., & Anton, A. (2019). ["Das ist alles so eigentümlich verschachtelt" Hans Bender und Carl Gustav Jung im Gespräch über Synchronizität \(1960\).](#) *Zeitschrift für Anomalistik* 19, 420-67.

Schellinger, U., Anton, A., & Wittmann, M. (2021). ["It is all so Strangely Intertwined." A discussion between Hans Bender and Carl Gustav Jung about synchronicity \(1960\).](#) *Phanés* 4, 1-50.

Steinkamp, F., Milton, J., & Morris, R. L. (1998). A meta-analysis of forced-choice experiments comparing clairvoyance and precognition. *Journal of Parapsychology* 62/3, 193-218.

Wittmann, M. (2016). [*Felt Time: The Psychology of How We Perceive Time.*](#) MIT Press. Cambridge, Massachusetts.

Wittmann, M., & Hurd, P. (2018). [*Altered States of Consciousness: Experiences Out of Time.*](#) MIT Press. Cambridge, Massachusetts.

Wittmann, M., Neumaier, L., Evrard, R., Weibel, A., & Schmied-Knittel, I. (2017). [Subjective time distortion during near-death experiences: an analysis of reports.](#) *Zeitschrift für Anomalistik* 17, 309-20.

Wittmann, M., Scheck, F., Feldmann, J., Glaesman, A., Mossbridge, J., & Bem, D. (2021). [The German version of a retroactive priming task shows mixed effects.](#) *Psychology of Consciousness: Theory, Research, and Practice*.

Endnotes

Footnotes

- [1.](#) Bem et al. (2016).
- [2.](#) Mossbridge et al. (2011).
- [3.](#) Wittmann et al. (2021).
- [4.](#) Müller & Wittmann (2017).
- [5.](#) Müller et al. (2019).
- [6.](#) Steinkamp et al. (1998).
- [7.](#) Müller & Wittmann (2021).
- [8.](#) Wittmann et al. (2017).
- [9.](#) Schellinger et al. (2019); Schellinger et al. (2021).
- [10.](#) Kübel et al. (2021).