

Moritz Dechamps

Moritz Dechamps is a German researcher investigating quantum effects in the context of micro-psychokinesis experiments.

Career

Moritz Dechamps is a post-doctoral researcher based at the Emotion and Motivation research unit at Munich's Ludwig-Maximilians University, headed by professor [Markus Maier](#). Together with Maier, Dechamps is investigating quantum-based models of consciousness and the relationship between mind, time and matter, which broadly overlaps with the micro-[psychokinesis](#) (PK) paradigm in parapsychology.

Examples of work by Dechamps and Maier follow.

Smoker Study

Parapsychological research, notably with regard to micro-PK research, exhibits mysterious decline effects. Generalized Quantum Theory (GQT)^[1] explains psi effects as generalized acausal entanglement correlations, which – because of the 'no-signal' axiom, that information cannot be sent via entangled systems – causes initially robust psi effects to decline during replications.

Dechamps and Markus Maier (his PhD supervisor) carried out studies^[2] which used smoking-related stimuli to elicit psychokinetic responses among 500 smokers and non-smokers. With 297 participants they found a strong initial PK effect followed by a strong decline, as predicted by GQT and the Model of Pragmatic Information. A recovery in PK performance subsequently occurred during the third study, giving an oscillatory effect across all three studies and all 500 participants. Significantly, Maier's team predicted this oscillatory pattern from previous experimental results and theoretical development.

Dechamps and Maier explain the pattern in entropic terms: PK ordering results in a loss of entropy which must be balanced later by a fall in PK performance. A recovery in PK scoring then occurs as the system allows for order to be injected again. This approach expands the theoretical work on GQT by [Walter von Lucadou](#), [Harald Walach](#) and Hartmann Römer.

Dechamps and Maier pre-registered a third study with 203 participants that predicted not only the continuation of the oscillatory pattern, as described above, but also an approximate PK scoring value based on the oscillation curve. Both predictions were confirmed; however, a comparison with ten thousand simulated random data sets for three measures – an area-under-the-curve analysis, a local maximum fit test, and an endpoint fit test – showed non-significant results.

Further exploratory analyses – including analysis of the highest-reached Bayes Factor (BF) over the course of the experiments, the overall orientation of the BF

curve, and its transformation into oscillatory components via a Fourier analysis – showed significant differences between experimental and simulated data. This supports the approach of analyzing the temporal development of the PK effect rather than just the terminal value – an approach which, Dechamps argues, more parapsychology programs should adopt.^[3]

Online Study

Dechamps and Maier carried out an online experiment with 12,571 participants, seeking clear-cut evidence for or against the existence of micro-PK. Bayesian analysis (a statistical method that takes prior probabilities into account) revealed strong evidence for the null hypothesis H_0 ($BF_{01} = 10.07$). Dechamps and Maier concluded that micro-PK did not exist in these data. However, closer inspection of the temporal change of the effect (how the effect modulated over time) suggested a non-random oscillative structure similar to that seen in the smoker study. Comparison with simulated random data revealed a marginally higher frequency in the experimental portion.^[4] Criticisms on statistical grounds by astrophysicist Hartmut Grote, have recently been answered.^[5]

Other PK Research

Dechamps continues to probe the theoretical basis for PK. A recent mini-review found interesting patterns of evidence across 32 experiments including clear differences in the temporal evolution of the effects compared to simulated control data.^[6]

Dechamps and his colleagues conduct regular exchanges with leading German theoreticians.

Michael Duggan

Literature

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Endnotes

Footnotes

1. ^ Lucadou et al (2007).
2. ^ Maier and Dechamps (2018).
3. ^ Maier and Dechamps (2019).
4. ^ Maier et al (2018).
5. ^ Maier et al (2021).
6. ^ Dechamps (April 2020), personal communication.

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