

# Biennial Report 2020–2021



Institut für Grenzgebiete der Psychologie  
und Psychohygiene e.V. (IGPP)  
Freiburg im Breisgau



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## Foreword

The Institute for Frontier Areas of Psychology and Mental Health (IGPP) is a private, non-profit research institute engaged in the systematic and interdisciplinary study of hitherto insufficiently understood phenomena and anomalies at the frontiers of our knowledge. We include parapsychological findings, extraordinary human experiences, altered states of consciousness and unexplainable psychophysical phenomena in this field. The Institute's research approach is interdisciplinary and includes psychological, sociological, historical and biological perspectives. In addition to its research activities, the Institute operates an extensive library in close cooperation with the University Library of Freiburg, with approximately 160 journals and 70,000 volumes on the Institute's subject matter, which is unique in this compilation. Furthermore, the Institute maintains a professional archive with unique written, audio and visual material, which also contains numerous bequests. In addition, we offer a comprehensive range of information, which is requested by many media representatives and interested laypersons, as well as a professional counselling service to which people with unusual experiences can turn.

With this activity report 2020-2021, we give you an insight into our diverse research approaches and fields of work and summarize our activities and results in the reporting period.

After a long period of stability, the Institute can now look back on two very eventful years. In the past reporting period, the Institute, which was founded by Hans Bender in 1950, turned 70 years old, at the end of 2020 there was a change in the Institute's leadership and the Corona pandemic demanded something unusual from us - as it did from everyone else - and shook up our daily research and work routine several times.

Prof. em. Dr. Dieter Vaitl had been the director of the Institute since 2001. In parallel, he was Professor of Clinical Psychology at the Justus Liebig University of Gießen until 2005, the year of his retirement, and Director of the Bender Institute of Neuroimaging (BION) there until 2011. At the end of 2020, Dieter Vaitl handed over the office of Institute Director to Prof. Dr. Stefan Schmidt, but he will remain Chairman of the Board of the IGPP's supporting association. Stefan Schmidt holds the chair for Systemic Family Therapy at the Department for Psychosomatic Medicine and Psychotherapy at the University Medical Center Freiburg. He is a psychologist by profession and completed his doctorate at the University of Freiburg in 1998–2001 with an experimental, parapsychological dissertation conducted at the Institute.

The change at the head of the Institute also brought about many other changes and further developments within our organization. The new Institute Director has appointed a four-member management team to coordinate and harmonize the central steps and decisions of the Institute's affairs. The goal is to adapt the Institute to the rapidly changing circumstances of academic research and the international research landscape so that it can continue to play a leading role in its field in the future. Thus, in 2021, the Institute's IT infrastructure was completely renewed and contracted out to an external service pro-

vider. The Institute Colloquium can now also be attended digitally and past lectures can be viewed on the Institute's new YouTube channel. Thus, our academic exchange, which was previously limited to Freiburg, has now achieved an international reach that is also widely perceived. Since the summer of 2021, the Institute has also maintained a Twitter channel (@IGPP\_Freiburg), which comprehensively depicts the Institute's events as well as the numerous media activities of the staff and paints an impressive picture of the IGPP's media presence. The website and the logo of the Institute are currently being revised, and a call for doctoral scholarships is planned for 2022 to promote young academics at the Institute.

With the outbreak of the Corona pandemic in February 2020, the Institute's daily routine also changed significantly. In two lockdowns, work was done almost exclusively from home, internal communication had to be switched to video conferencing, ongoing experiments were stopped and face-to-face consultations temporarily suspended. Hygiene regulations, masks and rapid tests have determined our everyday life just as much as changing fears and uncertainties as well as changes in regulations at short notice again and again. The festive event planned for June 2020 to celebrate the Institute's 70th anniversary was first postponed to the following year and then cancelled altogether. At least the anniversary volume edited by Dieter Vaitl, „An den Grenzen unseres Wissens: Von der Faszination des Paranormalen“ (Herder, 2020), which describes the history of the Institute from 1950 to the present, could be published as planned in spring 2020. After



Fig. 1. Front page of the *Frankfurter Allgemeinen Zeitung*, 8 July 2021.



the cancelled festive event, we are now planning to celebrate the 75th anniversary of the Institute in 2025 in a larger setting. Also due to the pandemic, Dieter Vaitl could not be discharged in an official setting at the end of 2020. The change at the head of the Institute initially took place quietly. It was not until October 2021 that Dieter Vaitl was officially bid farewell by the staff at a small celebration (see report by E. Bauer page @xy).

Another highlight planned during the reporting period was fortunately able to take place in spring and summer 2021 after an initial postponement. In cooperation with the Augustinermuseum Freiburg, the exhibition „ Spuk! Die Fotografien von Leif Geiges „ took place. On display were the impressive black-and-white photographs of the Freiburg photographer and photojournalist Leif Geiges (1915-1990), who worked closely with Hans Bender, especially in the 1950s. Geiges used various photographic means to depict haunted investigations, haunting phenomena, but also magical practices and parapsychological experiments. A comprehensive catalogue worth seeing was published as part of the exhibition. The exhibition caused some sensation throughout Germany: On 8 July 2021, the Frankfurter Allgemeine Zeitung ran the headline „Can you photograph hauntings?“ [Kann man Spuk fotografieren?] and printed one of Leif Geiges' images from the IGPP collection on its front page (Fig. 1).

Prof. Dr. Stefan Schmidt, Director of the IGPP since 2021

Prof. Dr. Dieter Vaitl, Director of the IGPP until 2020

## Dieter Vaitl at the IGPP – a personal retrospective on the occasion of his farewell on 28 October 2021

*“You all know the wild grief that besets us when we remember times of happiness.”*

*Ernst Jünger: On the Marble Cliffs*

Prof. Dieter Vaitl, born in 1941, who handed over his post as director of the IGPP to Prof. Stefan Schmidt, born in 1967, on 1 January 2021, is, if you will, in the direct line of tradition that still goes back directly to the Institute’s founder Prof. Hans Bender (1907–1991). In 2001, when he was still Chair of Clinical and Physiological Psychology at the



Fig. 2. Prof. Dr. Dieter Vaitl.

University of Gießen, he took over this function from Professor Johannes Mischo (1930–2001), who had died at an early age and who had been Hans Bender’s immediate successor as Chair of Psychology and Border Areas of Psychology at the University of Freiburg from 1975 to 1998 and IGPP Director himself after Bender’s death in 1991, and commuted between Gießen and Freiburg for several years, actively supported in the Institute’s management ‘on site’ by a Management Board.

Dieter Vaitl’s relationship with the Institute and with parapsychological research in Freiburg goes back to those years when the Institute, founded in 1950, was still located at ‘Eichhalde 12’ in Freiburg-Herdern on the much-vaunted ‘Magic Hill’ (not Marble Cliffs) – he was employed there as a student collaborator from 1964 to 1967

and always held this private research facility, its founder and the ‘anima’ of the Institute, the long-time manager Mrs Lotte Böhringer (1917–1994), in the best of memories. This can be learnt from the letter he wrote to his academic teacher on the occasion of Hans Bender’s 80th birthday on 5 February 1987; the letter is printed – along with many other personal recollections from Hans Bender’s circle of colleagues, co-workers and friends – in the special issue of the *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie* (Journal of Parapsychology and Border Areas of Psychology) founded by Bender in 1957 (Vol. 29, Issue 1, 1987), which I – as Bender’s former assistant – had edited.

In his personal recollections of his “Eichhalde” years, Dieter Vaitl’s encounter with the “poltergeist focus person” H. S. is also mentioned – in addition to his participation in the so-called “voices-on-tape” recordings with Konstantin Raudive in Bad Krozingen. At that time, H. S., who was tested with Rhine’s card experiments for possible ESP powers,



Fig. 3. ESP-experiment with Zenercards with H.S. (right), conducted by Claude Ruffin, Hans Bender and Dieter Vaitl in 1967. Still from a 16mm-film, Archives of the IGPP.

kept the small Eichhalde team on tenterhooks, especially because four IGPP collaborators themselves had personally witnessed spectacular physical phenomena, commonly referred to as ‘spontaneous psychokinesis’, vulgo ‘poltergeist phenomena’. In his 1969 address “New Developments in Poltergeist Research” as President of the “Parapsychological Association”, Bender described the events of that time: “In March 1966, cables had to be installed in the basement of a new school [in Freiburg]. A great number of hooks were to be fastened in the concrete walls. Two eight-millimeter holes were drilled into the wall and the hook was then fixed by means of two screws and two plastic plugs. The foreman observed that almost immediately after the hooks had been fixed, the screws became loose so that the hooks, which previously had been tight enough to support pul-lups, could easily be moved and even removed from the wall. The following day, seven hooks came out of the wall with their plugs and one of them is reported to have followed H. in a turn when the boy walked through the passageway. We subsequently arranged for an experiment in the presence of the staff of the Freiburg Institute and several works. We fixed two hooks in the concrete walls and assured ourselves that they were tight. Then we put the boy at a distance of about one meter from the wall and closely observed the screws. Within two minutes, they became loose. None of us had seen them coming out. We got flashbulb photographs and tape records. Two days after this successful experiment, we tried to get a filmed documentation but the hooks did not become loose.” No wonder these astonishing observations have gone down in legal-criminological literature as the “Freiburg loose screw phenomenon”...

The cooperation between Dieter Vaitl and me over the two decades within the framework of the Executive Board and in the day-to-day business of the Institute has been largely noiseless. Occasionally – especially at the beginning – there was some jarring when Die-

ter Vaitl reminded me that the Institute was not called Bauer Institute (which of course he was right about), but also not Vaitl Institute (which I was right about), whereupon we agreed – after reflecting on a “Hans Bender Institute” (HBI) – on the abbreviation IGPP. In the letter I mentioned to his academic teacher Hans Bender, Dieter Vaitl observed that he – Bender – was “far removed from the hostility to happiness of many older people”. This can justifiably be said of him – Dieter Vaitl – who liked to reply to compliments about his handsome appearance: “The drake shows his plumage”.

Dieter Vaitl’s personal farewell gift and his legacy to Bender’s legacy should also be understood in this sense: To celebrate the 70th anniversary of the founding of the IGPP in Spring 2020, a comprehensive research volume edited and co-authored by him was published as “An den Grenzen unseres Wissens – Von der Faszination des Paranormalen” (Fig. 4). The approx. 30 contributions or chapters summarise the pluridisciplinary work of the Institute over the last 20 years, which were developed under his decisive leadership.

In conclusion, I would like to quote the sigh of a former president of the Parapsychological Association during his presidential address –

*God in his wisdom created psi*

*But forgot to tell us why*

– and modify it accordingly as

*God in his wisdom created Vaitl*

*But this decision was really vital!*

Eberhard Bauer, Deputy Council Member of the IGPP



Fig. 4. *An den Grenzen unseres Wissens. Von der Faszination des Paranormalen*, ed. by Dieter Vaitl, Herder, Freiburg i. Br., 2020.

# 1. History

The exploration of phenomena and experiences in the frontier areas of our reality has a long tradition in Freiburg. The Institute for Frontier Areas of Psychology and Mental Health (IGPP) contributed significantly to this. Its founder, Professor Dr. Dr. Hans Bender (1907–1991) was probably the best known and the most popular academic representatives of German parapsychology after the Second World War (Fig. 5). Shortly after the war, Hans Bender began to establish an Institute in the “Eichhalde 12” building in Freiburg-Herdern (Fig. 6). There, operations began in 1950 and he was the Institute’s director until his death. Soon, a connection with the university was established; between 1954 and 1975, Bender held a Professorship of Psychology and its Frontier Areas at the Department of Psychology at the University of Freiburg. He was followed by Professor Dr. Johannes Mischo (1930–2001), who held the Professorship until 1998 and was the director of the IGPP until 2001. His successor since 2001 is Professor Dieter Vaitl, University of Gießen.



Fig. 5. Hans Bender, the founder of the IGPP around 1980.



Fig. 6. The IGPP at Eichhalde 12 in Freiburg in 1967. (Photo: Willi Pragher, Landesarchiv Baden-Württemberg, Staatsarchiv Freiburg, W 134 Nr. 5218c).

Historically, the “Eichhalde-Era” can be seen as the heroic time of the institute: Until the mid/end eighties of the last century, it was highly influenced by the charismatic personality of Hans Bender, who was seen as the Parapsychology Professor (“Spook-Professor”) par excellence. Bender’s lectures and seminars at the University of Freiburg gained legendary status with generations of students. Several hundred auditors followed his Tuesday lectures at the university fascinated and amused about his enthralling elaborations of the future, based on well-documented prophetic dreams, or of haunting research, such as the Rosenheim case. Bender never tired of pointing out that uncommon (paranormal) experiences and occurrences (psi-phenomena) are basic human



features and that they belong to human life, deserving to be researched in detail. Besides establishing this form of science in the canon of psychological disciplines, he contributed with his intensive public work to the fact that the frontier areas of psychology became popular and found entrance into the academic discourse. The financial and personnel resources of the institute were very modest at first and were financed mainly by the foundation of the Swiss biologist and parapsychologist Dr. Fanny Moser (1872 -1953) (Fig. 7). The financial shortage surrounding the research of the frontier areas, changed in 1992, when the IGPP started to be financially support by the Holler Foundation, leading to an expansion of the previous fields of research.

The spouses Holler had already in the 60's decided that their assets should fall to a charitable foundation. Asta Holler (1904–1989) (Fig. 8), who outlived her husband by 20 years, provided with her will assets, which should allow time unlimited benefits. In September



Fig. 7. Fanny Moser around 1920.

1990, one year after Asta Holler's death, the foundation started work. Heidrun Edelmann wrote an overview worth reading about the Holler-Foundation with the title „Vermögen als Vermächtnis. Leben und Werk der Stifter Christian und Asta Holler“ (München: Oldenburg, 2011).

The improved financial situation called for a restructuring of the Institute. With the growing number of research projects and scientific personnel from natural, social, and cultural sciences, the Eichhalde-Institute was left and the Institute moved into the centre of town. Since then, the IGPP and its research has been the focal point of very different scientific cultures. Today, the IGPP is the world's largest institution of its kind.



Fig. 8. Asta Holler around 1970.

## 2. Research

Following its initial mission, the IGPP concentrated as in the previous years on interdisciplinary research of so far insufficiently understood phenomena and anomalies at the frontiers of our knowledge. These include conditions of altered states of consciousness, extraordinary human experiences, mind-matter interactions as well as their social, cultural, and historical context in the humane, social, and natural disciplines. This mission is declared in the institute's statutes.

One outstanding characteristic of the IGPP is its philosophy of neutrality and its institutional independence. At the centre is the investigation of frontier areas of psychology. Its topics and methods can be summarized with the term reflexive anomalistics. Reflexive means an anomalistic, which, in the discourses in its field, is aware of the context of the epistemological characteristics of the examined phenomena and the particular methodological problems associated as well as the entanglement between subjective evidence, scientific data, and social discourse.

### 2.1 Natural Science and Experimental Research

#### 2.1.1 Perception and Cognition

The information available by our senses is restricted and to a varying degree ambiguous. It needs to be disambiguated and continuously interpreted in order to construct stable and reliable percepts. The discrimination between reality and illusion is thus to a large degree based on the capability of our perceptual system. And although we are relatively successful in interacting with our environment, it is widely unclear, how good at all such (epistemic) perceptual representations reflect the ontological reality.

Ambiguous figures are paradigmatic in this context. During the observation of an ambiguous figure, like the famous Necker cube (Fig. 9a), our perceptual system becomes

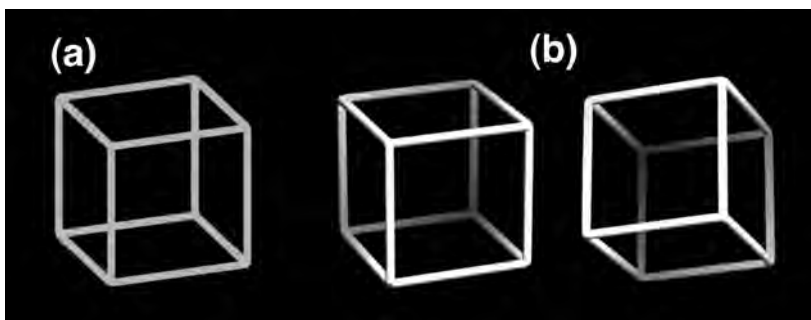


Fig. 9. (a) Ambiguous Necker cube. (b) Disambiguated cube-variants, corresponding to the two possible Necker cube interpretations.

unstable and alternates repeatedly between possible interpretations (Fig. 9b), despite an unchanged sensory input. We use this phenomenon of perceptual instability to study the influence of sensory and cognitive factors during the construction of an endogenous perceptual world.

### *Perception and Meta-Perception*

In recent studies we compared EEG correlates of the unstable neural representations of ambiguous visual stimuli and the stable representations of disambiguated stimulus variants. We found large amplitude differences in two event-related potential (ERP) com-

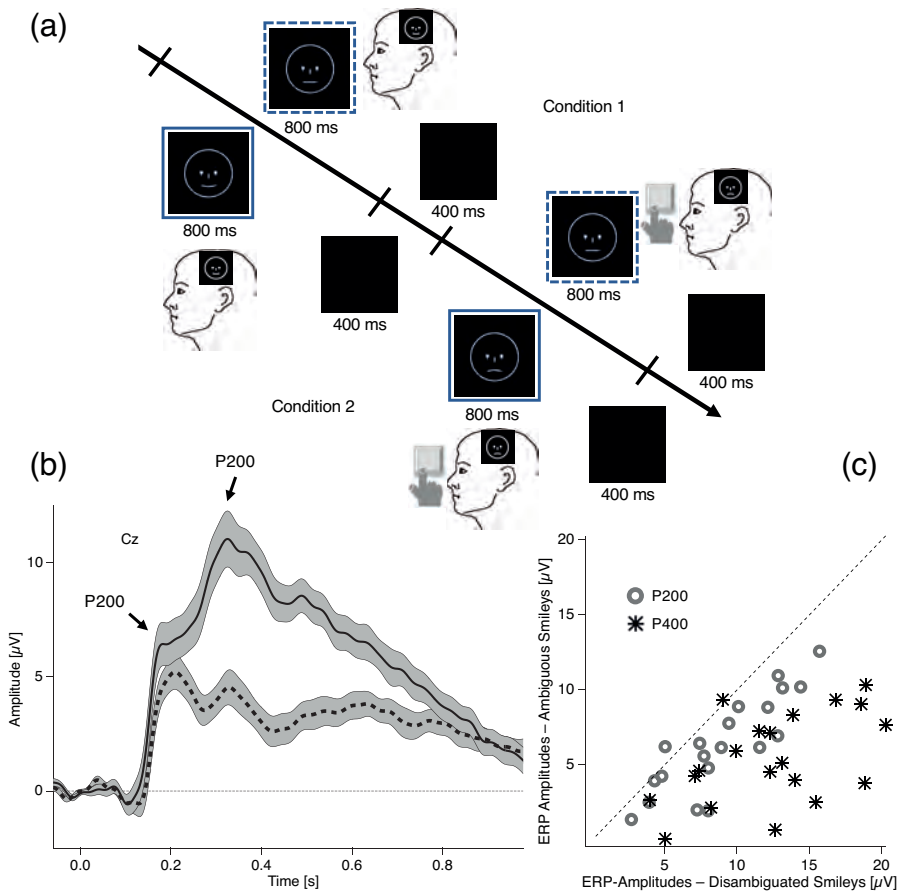


Fig. 10. (a) Experimental Paradigm. Participants observe successive smiley stimuli and report their percepts. (b) Grand mean ERP traces. Dashed (Cond. 1) / continuous (Cond. 2) traces: Participants observe ambiguous / disambiguated smileys. (c) Scatterplot. Circles and stars represent data from individual participants. In almost all cases the P200- and P400-amplitudes are higher, when participants observe unambiguous, compared to ambiguous smiley stimuli. Cz = central EEG-electrode position.



ponents 200 and 400 milliseconds after stimulus onset for disambiguated compared to ambiguous stimuli („ERP Ambiguity Effects“). Interestingly, these effects generalized so far across different stimulus categories at lower (geometry, motion) and intermediate (Gestalt perception) levels.

Three follow-up studies aimed to examine whether the ERP Ambiguity Effects also occur (1) at higher levels of complexity, namely with ambiguity at the lexical level with ambiguous and disambiguated variants of the letter S and the number 8 and with ambiguity in the emotional expression of faces (Fig. 10a) and (2) at a very low level of processing so-called Landolt C optotypes, that vary in size. Landolt Cs are typically used in visual acuity tests.

We replicated the ERP Ambiguity Effects for the lexical stimuli, the smiley stimuli (Fig. 10b,c) and the Landolt Cs, again with impressively large effect sizes. This is further evidence for a generalization across fundamentally different stimulus categories and complexity levels. We interpret these effects as correlates of an evaluation instance that estimates the reliability of perceptual outcomes at a meta-perceptual processing level beyond sensory details. The present findings indicate that they not only occur with perceptual uncertainty in the context of ambiguity but also in the context of visibility. We thus relabel them now as “ERP Uncertainty Effects”, that may reflect differences in evaluation results.

*Jürgen Kornmeier, Ellen Joos, Kriti Bhatia, Moritz Maschke, Julia Schipp, together with Sven Heinrich, Anne Giersch, Lukas Hecker and Ludger Tebartz van Elst*  
*Publications: Bhatia (2020); Joos, Giersch, Hecker, Schipp, Tebartz van Elst & Kornmeier (2020); Joos, Giersch, Bhatia, Heinrich, Tebartz van Elst & Kornmeier (2020)*

### *Do we perceive the world differently if we need to evaluate our percept?*

Our perceptual system combines the incomplete and noisy bottom-up sensory evidence with top-down memory contents in order to construct reliable perceptual interpretations. Depending on the sensory evidence these interpretations are more or less reliable. Recent studies indicate the existence of a meta-perceptual evaluation system, rating the reliability of perceptual interpretations (see also the preceding paragraph). In the present study we investigated whether the a priori knowledge about the necessity to explicitly report such evaluation results changes the processing of the observed stimulus. We presented ambiguous Necker lattices and disambiguated lattice variants in random order. In Condition 1, participants only indicated the perceived 3D lattice orientations. In Condition 2, participants additionally reported the confidence of their perceptual interpretations (Fig. 11). The differences in ERP traces between Conditions 1 and 2 are massive, they start already 104 milliseconds after stimulus onset and reflect at least four successive processing steps (Fig. 12).

Overall, our perceptual system seems to process the sensory information differently, if we need to explicitly report perceptual evaluation results.

*Jürgen Kornmeier, Ellen Joos and Jessica Knötzele*

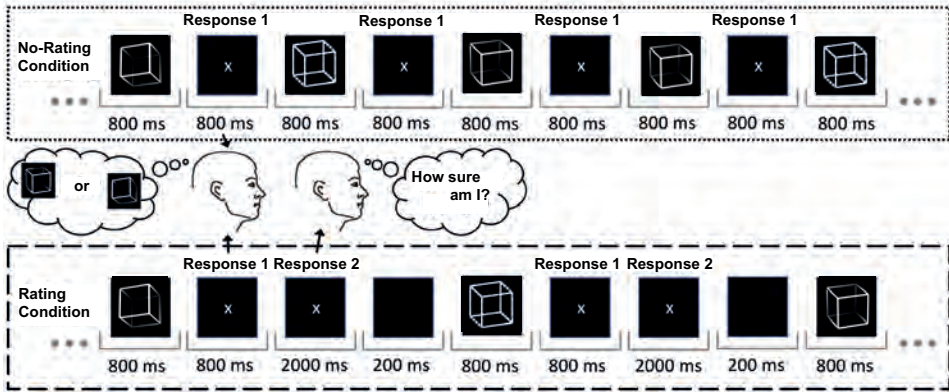


Fig. 11. Participants observe successive lattice stimuli. After each presentation they either report only their 3D percept (No-Rating Condition) or additionally in a second response the confidence of their first, perceptual response (Rating Condition).

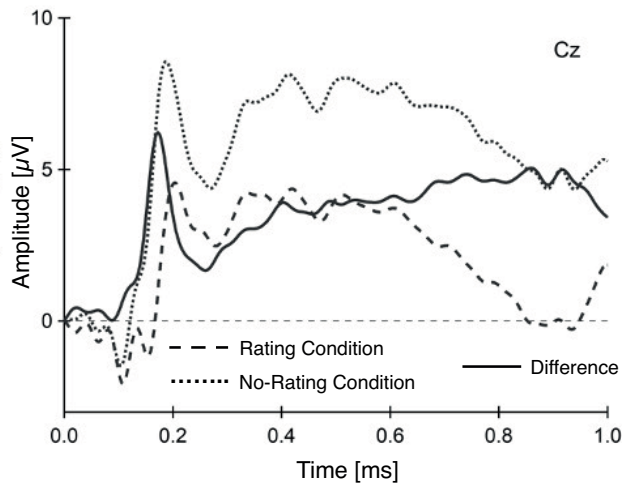


Fig 12. Grand mean ERP traces while participants observed the lattice stimuli. Dotted trace: No-Rating Condition; dashed trace: Rating Condition; continuous trace: Rating minus No-Rating difference trace. The neural processing of the lattice stimuli is strongly altered, if participants know that they have to rate their perceptual decision. Cz = central EEG-electrode position.

*Top-down resolution of visual ambiguity – knowledge from the future or by footprints from the past?*

Current theories about visual perception assume that our perceptual system weights the a priori incomplete and noisy sensory information with previously memorized perceptual

experiences in order to construct stable and reliable perceptual interpretations. These theories are supported by numerous experimental evidence. Theories about precognition have an opposite point of view. They assume that information from the future can have an influence on perception, thoughts and behavior. Several experimental studies provide evidence for precognition effects, other studies found no such effects and/or failed to replicate the previous precognition findings. One problem of the vast majority of precognition studies might be, that the experimental paradigms did not systematically control for potential effects from the perceptual history.

In the present study we used the Necker cube in order to systematically disentangle influences from the past and from the future on the perception at a present moment. We presented ambiguous Necker cube stimuli and disambiguated cube variants in alternation and systematically tested in two separate experiments whether perception of a currently observed ambiguous Necker cube stimulus can be influenced by a disambiguated cube variant, presented in the immediate perceptual past (perceptual history effects) and/or in the immediate perceptual future (precognition effects).

We found perceptual history effects, which partly depended on the length of the perceptual history trace but were independent of the perceptual future. Results from some individual participants suggest at first glance a precognition pattern, but results from our second experiment make a perceptual history explanation more probable. On the group level, no precognition effects were indicated.

The perceptual history effects found in the present study are in confirmation with related studies from the literature. The precognition-like patterns were restricted to selected individuals and did not allow for general conclusions. Overall, the present study demonstrates that any future experiment about sensory or extrasensory perception urgently needs to control for potential perceptual history effects, and that temporal aspects of stimulus presentation are of high relevance.

*Jürgen Kornmeier, Kriti Bhatia and Ellen Joos*  
*Publication: Kornmeier, Bhatia & Joos (2021)*

### ***ConvDip: A Convolutional Neural Network for Better EEG Source Imaging***

The electroencephalography (EEG) is a well-established non-invasive method in neuroscientific research and clinical diagnostics. It provides a high temporal but low spatial resolution of brain activity. To gain insight into the spatial dynamics of the EEG, one has to solve the inverse problem, i.e., finding the neural sources that give rise to the recorded EEG activity. The inverse problem is ill-posed, which means that more than one configuration of neural sources can evoke one and the same distribution of EEG activity on the scalp.

Artificial neural networks have previously been used successfully to find either one or two dipole sources. These approaches, however, have never solved the inverse problem in a distributed dipole model with more than two dipole sources. We present ConvDip, a novel convolutional neural network (CNN) architecture, that solves the EEG inverse

problem in a distributed dipole model based on simulated EEG data. We show that (1) ConvDip learned to produce inverse solutions from only one single time point of EEG data and (2) outperforms state-of-the-art methods on all focused performance measures. (3) It is more flexible when dealing with varying number of sources, produces less ghost sources and misses fewer real sources than the comparison methods. (4) The trained network needs less than 40 milliseconds for a single prediction. Our results qualify ConvDip as an efficient and easy-to-apply novel method for source localization in EEG data that may gain relevance for clinical applications, particularly when real-time source analyses are required.

*Jürgen Kornmeier, Lukas Hecker, together with Rebekka Rupprecht and Ludger Tebartz van Elst*

*Publication: Hecker, Rupprecht, Tebartz van Elst & Kornmeier (2021)*

## 2.1.2 Time Perception and Time Consciousness

How do we perceive time? How is the subjective experience of time related to cognition, emotion, and body states? Findings on the relationship between affect and time, together with recent conceptualizations on self- and body processes have connected time perception with emotional and bodily states. Next to fundamental research on the relationship between the experience of time with cognitive processes and affect, we study how the sense of time is modulated in altered states of consciousness such as in meditation, the Ganzfeld, when playing dynamic video games, in psychedelic-induced states as well as in certain neurological and psychiatric conditions. In addition, we explore frontier areas of anomalous experience and cognition as undertaken with experiments on precognition and remote viewing.

In the context of the *EU Call Horizon 2020 Topic FETPROACT-01-2018: VIRTUAL-TIMES: Exploring and Modifying the Sense of Time in Virtual Environments*:

- *What happens while waiting in virtual reality? A comparison between a virtual and a real waiting situation concerning boredom, self-regulation, and the experience of time*

Virtual environments are typically associated with entertainment and a fast subjective passage of time. This study examined the opposite effect by exposing participants ( $n = 83$ ) to a virtual reality (VR) waiting room for 7.5 min. We assessed the participants' capacity for emotion regulation and self-control as well as their level of boredom, affective states, and experience of time while waiting. We designed this study after one previously conducted by in a real waiting room, based on which we modeled the virtual room to compare the results. We expected our VR study to yield similar results to the real waiting room study, with correlations between boredom and a slower passage of time and increased thinking about time. Participants with a higher capacity for emotion regulation and self-control were expected to be less bored and experience time as passing faster than

others. VR being an interesting new technology, we hypothesized that the virtual waiting room would be less boring and therefore lead to a faster subjective passage of time than the real room. Our results partly confirm the findings of the real waiting room study, showing correlations between boredom and increased thinking about time and a slower subjective passage of time. Contrary to our expectations, waiting in VR was more boring and led to a slower experience of time and more thoughts about time than waiting in the real room. We did not find the expected effect of emotion regulation and self-control on boredom and time perception.

• *Time speeds up during flow: A study in virtual reality with the video game Thumper*

Flow is a mental state characterized by deep absorption during challenging activities, which was first studied by Mihaly Csikszentmihalyi. One of the defining characteristics of this state is the loss of the sense of time. Despite the widespread scientific interest in flow, there are few quantitative studies specifically on the aspect of time perception. The present study focuses on the relation between time perception and flow states in the context of video game play. Participants ( $n = 100$ ) played the rhythm game Thumper for 25 minutes in one of two conditions: in virtual reality (VR) or on a computer screen (2D).



Fig. 13. A participant plays the commercially available video game Thumper. The detection of brain waves is undertaken with the EEG in order to assess the neural correlates of flow experience.

Participants who played the game in VR performed better and had a stronger feeling of presence than those who played in 2D. Thumper was flow inducing regardless of condi-

tion and the more flow participants experienced the less they thought about time and the faster time passed subjectively. Furthermore, objective measures of player performance (total score and level reached) were positively correlated with flow states, meaning that the more flow participants experienced, the better they played.

*Marc Wittmann, Shiva Khoshnoud, Federico Alvarez Igarzábal, Helena Hruby and Joanna Witowska*

*Publications: Witowska, Schmidt & Wittmann (2020); Rutrecht, Wittmann, Khoshnoud & Igarzábal (2021); Igarzábal, Hruby, Witowska, Khoshnoud & Wittmann (2021)*

### ***Red visual stimulation in the Ganzfeld leads to a relative overestimation of duration compared to green\****

A Ganzfeld is a homogenized visual and auditory perceptual field which can induce altered states of consciousness (ASC; Metzger, 1929; Schmidt & Prein, 2019). Using a balanced intrasubject design, we compared participants' experience during two differently colored (red, green) 25-min Ganzfeld sessions with brown noise as acoustic stimulation. Participants were exposed to the colored visual field through commercially available goggles and to brown noise over headphones. We selected 67 participants with some prior meditation experience to increase the probability that they would engage meaningfully with this specifically restricted stimulus situation. We tested the functional components of the standard cognitive model of time perception (Zakay & Block, 1997) in a path analysis for direct (red vs. green light) and indirect effects (arousal, attention) on subjective duration and perceived passage of time. Subjective arousal and valence states were measured using the Self-Assessment Manikin (SAM). The amount of attention directed to time and the perceived passage of time were rated with standard visual analog scales (VAS). Participants also estimated the duration of each Ganzfeld exposure. The session with the red visual field lasted significantly longer than did the green session ( $\mu_{\text{red}} = 23.1$  min;  $\mu_{\text{green}} = 19.8$  min). After the green session, participants rated their arousal level to have significantly decreased; after the red session, individuals on average felt emotionally less positive. Multiple path analyses revealed that the effect of color on estimated duration is completely mediated through higher arousal levels during the red Ganzfeld session. In turn, the higher arousal level generates a longer subjective estimate of duration. For induction of relaxation in studies probing altered states of consciousness employing the Ganzfeld technique, we recommend using the green light.

*\*In memory of our dear friend and colleague Henrike Fiedler (1991–2019)*

*Marc Wittmann, Sebastian Kübel and Henrike Fiedler*

*Publication: Kübel, Fiedler & Wittmann (2021)*

### ***The German version of a retroactive priming task shows mixed effects***

Previous studies have shown that the choice reaction time to a positive or negatively valenced photo can be influenced by following positive or negative words. Congruent



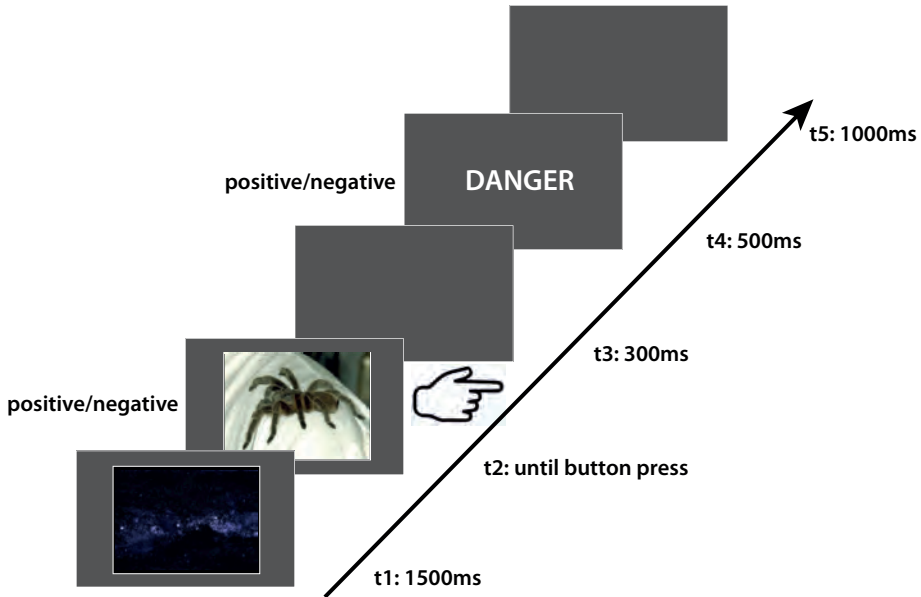


Fig. 14. One trials in the retroactive priming task: After the presentation of a photo of the Hubble telescope (t1), a positive or negative photo is presented (t2) and the subject presses one of the two assigned buttons for the respective valence. After a pause of 300 ms (t3), a word with negative or positive valence is presented (t4) followed by another pause (t5).

photo-word pairs led to shorter reaction times than incongruent pairs. Since the potentially influencing word appears after the button is pressed, this effect has been described as a retroactive psi effect (Bem, 2011, Exp. 4). The present paper reports on two studies that replicated the original English retroactive priming task using German words. Two new analysis methods are applied by (1) assessing whether the influence of a classic anterograde priming effect is detectable, which is not, and (2) controlling in study 2 for potential false positive effects by utilizing a specially designed sham control task. By applying confirmatory analyses criteria, the anomalous cognition hypothesis concerning a positive psi effect is rejected in both studies. Exploratory post-hoc analysis shows a significant positive retroactive priming effect in study 1 for men only and an overall weak significant negative priming effect in study 2. We discuss these ambivalent findings as typical anomalous result patterns in experimental parapsychology. Through these results, both those who are sceptic of anomalous cognition and those who believe in it can find confirmation of their assumptions.

*Marc Wittmann, Julia Mossbridge and Daryl Bem*

*Publication: Wittmann, Scheck, Feldmann, Glaesmann, Mossbridge & Bem (2021)*

### 2.1.3 Dual Aspect Monism

Correlations between mental and material states are an intrinsic feature of mind-matter models which consider such states as dual aspects of an underlying reality that itself is neither mental nor material. An early version of such a model is due to Spinoza, and since then variants thereof have recurrently been formulated, mostly outside philosophical mainstream directions. Well-known names in the modern philosophical history of dual-aspect monism are Strawson, Nagel, and Chalmers. From the perspective of philosophically interested scientists, Wolfgang Pauli and C.G. Jung are to be mentioned (in addition, e.g., Bohm and d’Espagnat). In a series of publications, partly with a history-of-science flavor, we could systematically reconstruct the most significant characteristics of the ideas of Pauli and Jung. For this purpose, the comprehensive correspondence of Pauli, edited in eight volumes by Karl von Meyenn, was enormously helpful. We worked out how the apparently related position of neutral monism (Mach, James, Russell) deviates from the conception of Pauli and Jung. A key difference is that the psychophysically neutral reality in the Pauli-Jung conjecture is conceived holistically and can only be subject to decomposition. By contrast, neutral monism is based on psychophysically neutral elements whose composition decides whether mental or material properties arise.

*Harald Atmanspacher*

#### *Journal “Mind and Matter”*

The journal “Mind and Matter” was established in 2003 and has received increasing visibility as a high-quality publication outlet for questions of mind-matter research since then. The journal appears semi-annually and is, since 2013, indexed and abstracted by Elsevier’s scopus system. The number of submissions grows continuously, the current acceptance rate is about 30%. Since 2005 the journal has been produced and distributed by Imprint Academic, Exeter (UK). The themes of the 2020 and 2021 issues so far were “Digital Consciousness” (18/1), “Contradiction, Contrast, Controversy” (18/2).

*Harald Atmanspacher, together with Karin Moos*

*Publications: Atmanspacher, ed., Mind and Matter*

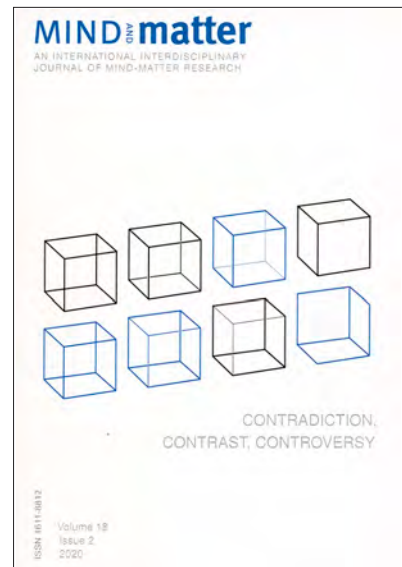


Fig. 15. *Mind and Matter*, Contradiction, Contrast, Controversy (18/2), 2020.



## 2.1.4 Bender Institute of Neuroimaging (BION)

The BION was opened in 2000. Since the commencement of a new statute at November 23th 2012 it is an institution of the Department of Psychology and Sports Science of the Justus Liebig University Giessen, cooperating closely with the IGPP. The core of the BION is a magnetic resonance tomograph (MRT), which is exclusively available for psychological investigations of brain functions. The MRT generates a homogeneous magnetic field of 3 Tesla and provides cross sections of any requested orientation, representing the interior head structure and brain function during particular tasks.

Research groups of different divisions of the department are currently working at the BION. In addition, starting at the end of 2017, the BION is developed further into a core facility of the German Research Foundation that can be used in the future by research groups from everywhere in Germany. The following report focuses exclusively on the work of the research group “Altered States of Consciousness – Meditation Research”, headed by Dr. Ulrich Ott, an employee of the IGPP, in close coordination with Prof. em. Dr. Dieter Vaitl and Prof. Dr. Stefan Schmidt.

### *Varieties of contemplative experience*

This project is being conducted in close cooperation with Willoughby Britton and Jared Lindahl and intends (1) to develop a detailed description and classification of phenomena induced by meditation, (2) to determine factors that have an influence on the occurrence of these phenomena – for instance personality traits or duration and type of practice –, and finally (3) to identify successful strategies for prevention and treatment. These questions were explored in 102 semi-structured interviews that were transcribed, coded, and further analyzed. Based on the analysis of the interview data, a questionnaire on unexpected and difficult meditation experiences was developed that was applied in two subsequent online-surveys with Buddhist meditators and teachers of MBSR (Mindfulness-based Stress Reduction). The obtained insights are to be integrated in the counseling focus “Spiritual and meditation-induced crises” at the IGPP.

*Ulrich Ott, Liane Hofmann, Michael Tremmel, Freya von Hohnhorst, together with Willoughby Britton and Jared Lindahl*

### *Effects of different yoga breathing techniques for self-regulation*

In the course of the doctoral project of Janika Epe, healthy participants learnt four different yoga breathing techniques during an eight-week training (two weeks for each breathing technique). Training was supported with video instructions. After having trained each technique the participants filled out questionnaire on wellbeing and perceived stress, conducted an attention computer test, and physiological measurements were taken (64-channel EEG, respiration, skin conductance, ECG) during a baseline condition and while practicing the breathing technique. The scientific foundation of the training program and its practical implementation were published in a book. The questionnaire data were published in the meantime. The physiological data are still being analyzed.

*Ulrich Ott and Janika Epe*  
*Publication: Epe, Stark & Ott (2021)*

***Distribution of basic meditation techniques***

For the scientific investigation of meditation it is important to define the practiced techniques and to determine their distribution in different traditions. Starting with a compiled pool of over 300 meditation techniques, 50 different techniques were defined. In an online-survey, 650 meditation practitioners specified which techniques they practiced how frequently. The obtained findings can serve further research to select common meditations techniques and to compare them regarding their effects.

*Ulrich Ott, together with Karin Matko and Peter Sedlmeier*  
*Publication: Matko, Ott & Sedlmeier (2021)*

## 2.2 Social and Cultural Research

### 2.2.1 Cultural Studies and Social Research

#### *The Battle for Truth. Conspiracy theories between fake, fiction and facts*

Conspiracy theories are usually seen as an expression of extreme political or religious attitudes, as part of dangerous ideologies, or at least as illegitimate, false opinions or beliefs, because they claim to have knowledge of conspiracies which, according to the prevailing (cultural and scientific) reading, do not exist or have never existed 'in reality'. This view of the topic of conspiracy theories dominated media and scientific discourse even before the Corona pandemic, and has gained additional prominence since then. From the perspective of the sociology of knowledge, however, such a framing of the highly complex social phenomenon of conspiracy theories is problematic. It not only hides a substantial part of the spectrum of conspiracy theory interpretations by definition, but also often leads to very biased view of the research object.

In recent years, Andreas Anton and Michael Schetsche have presented a model of conspiracy-theoretical thinking that is oriented toward the sociology of knowledge. This model examines conspiracy theories from a discourse-analytical perspective and systematically focuses on those processes of social construction of knowledge and reality that assign conspiracy theories in Western societies to the area of heterodox (i.e., generally unrecognized) knowledge.

The goal of the project was to make the main implications of this model accessible to a wider audience through a popular science book publication. Another task was to reconstruct the current state of scientific discussion on the topic of conspiracy theories as well as the history of various conspiracy theories. Sociologist Dr. Alan Schink, who completed his doctorate on conspiracy theories at the University of Salzburg and has been in contact with IGPP for several years, was a cooperation partner in this project. Work on the book was completed in the summer of 2021, and published in August 2021 by Komplet-Media-Verlag in Munich.

*Andreas Anton*  
*Publication: Anton & Schink (2021)*



Fig. 16. Andreas Anton, Alan Schink: *Der Kampf um die Wahrheit. Verschwörungstheorien zwischen Fake, Fiktion und Fakten*, Komplet-Media, München, 2021.

### *Anthology “The Uncanny in the Modern World”*

When we think of ‘the uncanny’, the first thing that comes to mind for most of us are fictional cultural products: uncanny books and movies, TV series, and computer games. Many fictional representations are inspired by very real uncanny places, situations, figures in the living world. According to a widespread misunderstanding, the uncanny only emerged with the formation of the concept itself. The feeling of the uncanny, however, is rather an anthropological constant. And for good reason, because the uncanny impression works as a forewarning system for unresolved situations in which we do not yet know whether to fight or flee, to be afraid or to laugh at our own fright. The uncanny feeling characterized by various ambivalences in the perception and interpretation of the outside world is on the one hand always subjective, but on the other hand, as the multitude of well-functioning fictional formats shows, it can also be communicated and transferred intersubjectively. The seven contributions in the anthology edited by Michael Schetsche, Nadine Sarah Heintz, and Renate-Berenike Schmidt address the uncanny in very different lifeworld and fictional contexts. The popularized Freudian thesis that the uncanny always begins in the concealed inner world of the subject becomes the starting point for reflections on various alternative readings of the uncanny in the modern world. The volume was published in the summer of 2021 by Logos-Verlag in Berlin.

*Michael Schetsche*

*Publication: Schetsche, Heintz & Schmidt (2021)*

### *Sleep paralysis – a German online survey*

Isolated sleep paralysis (SP) is mostly experienced before falling asleep or after waking up in waking consciousness as a state of temporary paralysis or inability to move, which in most cases is accompanied by intense hallucinations as well as fear. Although the phenomenon is relatively widespread with a lifetime prevalence of about 8%, survey data for German-speaking countries were lacking. We conducted an extensive online questionnaire on SP that collected data on several areas of the topic that have remained under-researched. A first focus concerned the relationship of the frequency of SP as well as gender and various concomitant phenomena. As a further focus, we chose the question of the relationship between SP and the general experience of extraordinary experiences (ExE), paranormal beliefs, and absorption. Finally, we were interested in the question of how affected individuals coped with what was often a very stressful experience (these data will be analyzed in the coming year). We used a selected sample of subjects who had had at least one SP experience, with a total of 380 subjects. On average, the participants experienced 10–20 SP episodes. As expected, we found a positive correlation between the frequency of SP and the variety of experienced phenomena, emotions, and perceived forms. Some highly significant gender differences also emerged. Women generally reported more perceptions and experiencing fearful emotions, especially the fear of going crazy. Interestingly, significant correlations are missing where one would have suspected them based on the previous hypotheses. Neither self-perceived general stress nor poor

sleep hygiene appeared to influence the frequency of SP. An increased frequency of SP also appears to lead to habituation and de-dramatization in some affected individuals. Most of these findings were based on exploratory questions; they require replication for validation.

*Gerhard Mayer, together with Max Fuhrmann*  
*Publication: Mayer & Fuhrmann (2021)*

### *Astrology and science. A precarious relationship*

In this research project, the difficult relationship between astrology and science was examined from different perspectives. In a first step, the developments in the German-speaking area in the 20th century were analyzed, traced in a historical review and, above all, the specific attempts to bring astrology closer to academic science were highlighted. In this regard, Prof. Hans Bender's (1907–1991) interest in astrology played an important role. Since the mid-1990s there has been an extensive abandonment of these efforts and an adjustment to the international astrology scene in the western industrialized nations. In a further step, considerations were made on empirical studies on the validity of astrology. The potentially anomalistic aspects of astrology or astrological practice were elaborated, and a distinction was made between the above-below-theorem as the traditional basic assumption of astrology and possible psi phenomena that may occur in astrological counseling practice. Problems in scientific studies on the validity of astrology were described, which could have led to the widespread failure of these efforts, as well as specific methodological problems in the investigation of the above-below-theorem and in matching tests. It is of central importance to note that in such studies, the concepts associated with the practices under study are often poorly reflected upon by the investigators or are not known at all. Finally, different scientific approaches to astrology were described with their respective specific questions, methodological approaches, and relevance to the scientific worldview or astrological practice.

*Gerhard Mayer*  
*Publications: Mayer (2020a, 2020b, 2020c, 2020d, 2021b)*

### *Journal of Anomalistics / Zeitschrift für Anomalistik - a cooperation project of the Gesellschaft für Anomalistik [Society for Anomalistics] and the Institut für Grenzgebiete der Psychologie und Psychohygiene [Institute for Frontier Areas of Psychology and Mental Health]*

The Zeitschrift für Anomalistik (ZfA) was founded in 2001 by the Gesellschaft für Anomalistik (GfA – Society for Anomalistics) as a scientific, peer-reviewed journal under the editor-in-chief Edgar Wunder and is self-published. It “is intended as a scientific forum for the advancement of controversial discussions about scientific anomalies, exceptional human experiences and so-called para-sciences” (<https://www.anomalistik.de/en/janom/profile-of-the-zeitschrift-fuer-anomalistik>). Since 2017, Dr. Gerhard Mayer has been the responsible editor. In the context of the intended increasing internationalizati-

on and the desire for institutional embedding, three important changes were made with the 21st volume: (1) The originally purely German-language journal was transformed into a bilingual journal and now bears the dual title *Journal of Anomalistics / Zeitschrift für Anomalistik*. (2) It became a cooperative project of GfA and IGPP. The institutional affiliation gives it an even stronger international weight and a more solid economic and personnel basis. As an “institute journal” it increases the visibility of the IGPP on an international level. (3) Finally, this step transformed the journal into an open access journal. The two issues of the first volume in this new structure comprise a total of 590 pages and include, among other topics, a discussion forum on the skeptic movement with two main contributions and seven commentaries by international authors (issue 2021-1) and an essay on “past-life experiences” accompanied by five commentaries (issue 2021-2). Since the second issue of this volume, much of the typesetting has been done by IGPP staff member Kirsten Krebber. Frauke Schmitz-Gropengießer is responsible for proofreading.  
*Gerhard Mayer*

## **2.2.2 Cultural and Historical Studies, Archives and Library**

The scope of this research area includes the cultural and social history and the history of science of parapsychological research and other unorthodox fields (“Historical Parapsychology”). The focus is on the historical reception of spiritism, occultism, psychical research and parapsychology in Germany from the 19th century until today. Of particular interest is the reception of paranormal and “anomalistic” phenomena with regard to established scientific disciplines such as psychology, medicine, literary studies or history of art. Special topics of interest are: (1) biographies of psychical researchers and psychics or mediums; (2) the history of organizations and societies in the field; (3) the role of photography in the history of parapsychological research; (4) the connection between occultism and visual arts; (5) the history of the IGPP and the biography of its founder Hans Bender. An integral part of these studies are the IGPP research library and the IGPP archives.

### **Historical and Biographical Studies**

#### *On the early history of the Institute until the death of Prof. Hans Bender*

In the anthology edited by Dieter Vaitl “An den Grenzen unseres Wissens: Von der Faszination des Paranormalen” (Herder, 2020), a summary review of about 40 years of development of the Institut für Grenzgebiete der Psychologie und Psychohygiene e.V. (IGPP) is given at the beginning – from its foundation by Prof. H. Bender (1950) to his death in 1991. The founding years of the IGPP are covered together with the phases of academic integration at that time via the Chair of Border Areas of Psychology to the Department of Psychology and Borderline Areas of Psychology at the University of Freiburg (1954, 1967, 1975); the chronology of the *Journal of Parapsychology and Border Areas of Psy-*

chology (1957 ff.); the establishment of a special library “Parapsychology” funded by the German Research Foundation (DFG) in conjunction with the University Library Freiburg (1973 ff.). The main emphasis is on a résumé of the research work done so far in these years. It deals with: Investigations into border areas of psychology, spontaneous reports and haunting phenomena; qualitative and quantitative experiments; methodological questions; model approaches and theoretical considerations; controversies and criteria; interdisciplinary interactions and the special reception problems of parapsychology. The “Study of Parapsychology in Freiburg” is briefly mentioned.

*Eberhard Bauer, together with Dieter Vaitl*

*Publication: Bauer & Vaitl (2020)*

### *Contributions to historical poltergeist research*

Reports on ghosts, apparitions and haunting phenomena have been reported since antiquity; they are widespread across cultures, and their interpretations through the centuries are also a reflection of prevailing social, religious and cultural world views and collective attitudes. Detailed descriptions of events, which today we would most likely classify as ‘hauntings’ or ‘poltergeists’ due to their typical forms of reporting and sequence of events, come from 17th and 18th century Europe, for example, especially from England, France and Germany. They were (and still are) the subject of studies on the history of reception and mentalities, especially from the perspective of historical, religious or literary studies. Reports of hauntings and ghosts occupy a special place in discourses on the social role of superstition (*superstitio*) in the historical context of sorcery, demonology and witchcraft at the beginning of the early modern period and the emerging conflicts with the Enlightenment’s claim to rationality. Early and in part extensively documented haunting reports, which are presented in relevant overviews, are situated in this field of tension. The authors of such reports were primarily those directly affected, who defended themselves against the social stigmatisation that has always accompanied ‘spooky’ occurrences, or scholarly treatises that attempted to grasp and ‘contain’ the ‘occult’ or ‘supernatural’ occurrences with theological, legal and medical terminology and cognitive possibilities of the time. It is not least to the credit of IGPP founder Hans Bender that this topic is now part of the agenda of the international parapsychological community – mostly under the designation “Recurrent Spontaneous Psychokinesis” (RSPK). Historical, sociological, clinical-psychological, experimental and methodological aspects of RSPK phenomena are an integral part of the relevant research agenda and are regularly discussed at conferences such as the Conference of the Parapsychological Association or the Society for Psychical Research. The aim of counseling “haunted” people is to help them to find a solution to their problems. The aim of such a counseling is to decipher the meaning or significance of such occurrences against the background of the current biographical or family situation. It can be shown that RSPK phenomena disappear when the “real” problem – its “meaning” – has been understood: poltergeist phenomena loose



their importance and one does not like to remember them even later – they change into literature and find their deserved place in the IGPP library for example.

*Eberhard Bauer*

*Publications: Bauer (2020a, 2020b, 2020d, 2021d)*

### *Marquis de Puységur (1751–1825) and animal magnetism*

Marquis de Puységur (1751–1825) is one of the central figures in the early history of hypnotism, which is prepared culturally in the form of Mesmerism or Animal Hypnotism. His work “Mémoires pour servir à l’histoire et à l’établissement du magnétisme animal”, published in 1784, describes – prepared by Franz Anton Mesmer – the discovery of “artificial somnambulism” and is considered a milestone of depth psychology and psy-

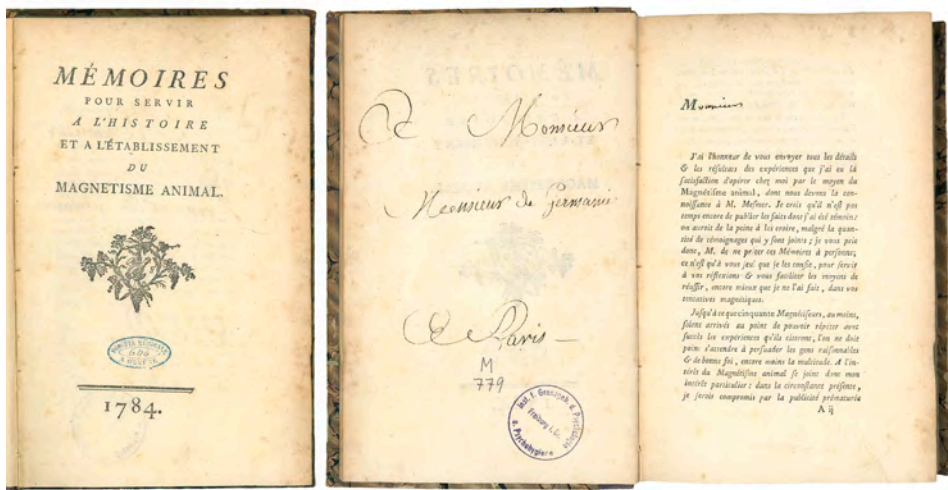


Fig. 17. Marquis de Puységur: Mémoires pour servir à l’histoire et à l’établissement du magnétisme animal, 1784. Library of the IGPP / University Library Freiburg .

chotherapy from a scientific-historical perspective. A fourth copy of this extremely rare book is part of the Fanny Moser collection of the IGPP library, whose holdings belong to the UB Freiburg. The Freiburg copy contains the handwritten dedication “Monsieur de Germanie”, about whose identity – perhaps a nickname? – is not known. Such chance discoveries illustrate why cultural history does not come to an end.

*Eberhard Bauer, together with Adam Crabtree*

*Publication: Crabtree & Bauer (2021)*

### *Erlendur Haraldsson (1931–2020) and the IGPP – a Viking in the new frontiers of the soul*

The Icelandic psychologist Erlendur Haraldsson belonged to the inner circle of students



of IGPP founder Prof. Hans Bender. He had spent several stays at the IGPP between 1958 and 1959, when he studied philosophy at the University of Freiburg and at the same time attended Prof. Bender's legendary 'Aula'-lectures on parapsychology, which had a lasting influence on him. The subject of his dissertation "Vasomotorische Reaktionen als Indikatoren Aussersinnlicher Wahrnehmung" (1972) belonged to the field of experimental parapsychology and was supervised by Hans Bender and Inge Strauch. The data collection was carried out by Erlendur while he spent several months as a research assistant at J. B. Rhine's Institute for Parapsychology in Durham, NC. In 1993, Erlendur was invited by Prof. Johannes Mischo (1930–2001), Bender's successor as IGPP Director and Chairman of the IGPP Board after Bender's death in 1991, to join the expanding IGPP research team as a Visiting Professor for three years. As an experienced parapsychological researcher of international repute, Erlendur helped to train and to supervise the IGPP team by giving seminars and continuing his field research projects on COURT cases – 'recollections' and 'past' lives – and it was Erlendur who helped spread the word quickly in the international parapsychological community that the IGPP had become a new and vibrant 'player' in the field. For many years, Erlendur remained in close contact with his German friends and colleagues – between 1993 and 2018, he gave numerous talks at the IGPP's regular research colloquia and at the annual workshops of the Wissenschaftliche Gesellschaft zur Förderung der Parapsychologie e. V. (WGFP) in Offenburg. His lectures covered the whole spectrum of his international research activities – topics included COURT cases, apparitions, the controversial topics of physical mediumship, especially Sai Baba and Indridi Indridason, worldwide surveys on belief systems in relation to deathbed



Fig. 18. Postcard from Erlendur Haraldsson to Eberhard Bauer.

visions – to name but a few. Erlendur Haraldsson will be remembered as the prototype of an intrepid researcher – a true “Viking” in search of new frontiers of the mind.

*Eberhard Bauer*

*Publications: Bauer (2021a, 2021b)*

### *Klaus E. Müller (1935–2021) – a universal theorist of atopology*

Klaus E. Müller was professor of ethnology at the University of Frankfurt a. M. from 1971 to 2000. His main areas of work included general and theoretical ethnology, especially cognitive and behavioral anthropology, and the history of ethnology. He was one of the few hand-picked representatives of his ethnic group who explicitly regarded paranormal (psi) phenomena – to put it more neutrally, exceptional experiences – in their ontic and epistemic quality as a genuine research task and challenge for their discipline. In addition to his contacts with the IGPP, he took over the chairmanship of the Wissenschaftliche Gesellschaft zur Förderung der Parapsychologie e. V. (WGFP) from 2001 to 2013. His lectures at the annual Offenburg WGFP workshops – eleven in number: beginning with “Epistemological Borderline Cases” (1990) to “The Revenant” (2014) – were always among the highlights of these internal workshops and were published in the *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie* and *Zeitschrift für Anomalistik*. Presented with subtle (self-) irony, they reflected his extensive classical education, a profound knowledge of the remotest facts of historical humanities and the humanities (humaniora) on the background of an illusionless, anthropologically informed skepticism concerning the genesis and future prospects of the human species on this planet. He leaves behind a wide-ranging and multi-layered body of work covering diverse aspects of global cultural history, comparative culture and cultural anthropology – e.g., magic, shamanism, the ethnology of gender conflict, elementary forms of social behavior, the perception of disabled people, food & drink, the formation of religious systems – to name but a few topics. His writings and volumes of essays specifically devoted to parapsychology and paranormal phenomena or interdisciplinary anomalistics are: “Die gespenstische Ordnung – Psi im Getriebe der Wissenschaft” (Lembeck, 2002); “Der sechste Sinn. Ethnologische Studien zu Phänomenen der außersinnlichen Wahrnehmung” (Campus, 2004); “Im Schatten der Aufklärung: Grundzüge einer Theorie der Atopologie” (LIT, 2014).

*Eberhard Bauer*

*Publication: Bauer (2021c)*

### *The Parapsychologist Fanny Moser in the Context of Scientific and Institute History*

When Fanny Moser (\*1872) died in 1953, she left her scientific legacy and a certain financial inheritance to the Institute for Frontier Areas of Psychology and Psychohygiene, which had been newly founded by Hans Bender at that time. Moser considered occultism to be the „science of the future“ and wanted to ensure with her legacy that her lifework - the scientific investigation of occult phenomena and hauntings - would be made per-



Fig. 19. Hans Bender at the “Eichhalde-Institute” in front of a painting showing Fanny Moser, around 1975.

manent and continued within an academic framework. Her case files, exposés, published writings, manuscripts, scientific and private correspondence, and much more have since been placed in the IGPP research archive and have been and will be successively analyzed over time.

Fanny Moser’s life and work provide plenty of interesting perspectives: born into a rich Swiss family in 1872, she emancipated herself from family and social role expectations and was one of the first women to take up a university education. As one of these female pioneers, she earned her doctorate in 1901 with a zoological thesis and went on to become a respected natural scientist specializing in jellyfish, including international research visits and numerous scientific publications. But triggered by a powerful spiritualistic experience and intensified by private crises, her scientific biography experienced a radical turning point in her midlife. Moser broke with zoology and focused on occult and paranormal phenomena until the end of her life, passionately struggling for scientific proof and academic recognition of parapsychology.

On the occasion of her 150th birthday in 2022, the IGPP will honor Fanny Moser at several events. In this context, the following projects were realized, prepared and initiated during the reporting period:

1. Continuation of the research project „The life and work of Fanny Moser: a Biography of Science“. The study, which is situated equally in biographical studies, women’s studies and the history of science, systematically reconstructs the course of Moser’s life on the

basis of extensive archival and source material, taking into account family backgrounds, historical conditions and sociological aspects.

*Ina Schmied-Knittel*

*Publication: Schmied-Knittel (2021)*

2. Preparation and realization of a publication („Festschrift“) on the life and work of Fanny Moser, which will be published by Ergon-Verlag in mid-2022 and in which several collaborators will contribute an essay.

*Eberhard Bauer, Andreas Fischer and Ina Schmied-Knittel*

3. Realization of a digitization of selected archival materials from the Moser legacy, especially photographs, excerpts from correspondence and manuscript pages, to accompany this publication. These will be placed on the IGPP homepage in the current year 2022, to illustrate and complement the printed publication, and, last but not least, to make documents from the research archive of the IGPP visible in a general way and present them to a broad public.

*Eberhard Bauer, Andreas Fischer and Ina Schmied-Knittel*

4. Exploration of an exhibition project in cooperation with the Museum zu Allerheiligen Schaffhausen (Switzerland). On the basis of a cooperation offer from the Schaffhausen Museum zu Allerheiligen, a detailed pre-study was conducted, which showed the planning and approach as well as a discussion of appropriate exhibits. With regard to content, such an exhibition aims to reconstruct Moser's scientific examination of haunting and occultism. With Moser's biographical background as the daughter of the famous Schaffhausen industrial pioneer Heinrich Moser, a local history perspective also plays a role and strengthens the importance of Schaffhausen as a suitable exhibition location. Various thematic islands and stations were planned, to be realized with exhibits from the collections of the IGPP archive, the Moser Family Museum Charlottenfels and the family archive R.N. Balsiger, plus loans from external collections: Photographs, drawings, and other documents on paper such as correspondence, case files, literature, and 3D objects. Due to the Corona situation, the realization and the originally planned schedule (spring 2022) have been postponed indefinitely.

*Andreas Fischer and Ina Schmied-Knittel*

### ***Contributions on the history of the IGPP***

For a book project documenting the recent history of the IGPP on the occasion of the 70th anniversary of the Institute (2020), several individual contributions were written with the following titles: Documentation of an unexpected development: The IGPP in the gap years 1991 to 1995; Upheaval and reorientation: The IGPP between 1996 and 2020 - a short overview; History of science in frontier areas of psychology; The research archive of the IGPP - development and holdings.

*Uwe Schellinger, together with Dieter Vaitl*

*Publications: Schellinger (2020c); Schellinger (2020d); Schellinger (2020e); Schellinger*

© Vaitl (2020)

*Security through insecure knowledge? Parapsychological insights and paranormal practices in secret services, the military and the police*

On the basis of detailed case studies the question should be explored when and how parapsychological knowledge was considered, or occult or paranormal practices are applied, in unambiguously constituted systems such as secret services, the military and the police, all of which usually hark back on a secure range of methods. What were the conditions under which paranormal abilities were used, who had the responsibility for such practices and which protagonists took part in? Again and again in these contexts the work of the Dutch sensitive Gerard Croiset (1909-1980) plays a remarkable role.

Schellinger

Publication: Schellinger (2020a)

*Clairvoyants, Mediums and Miracle Healers: Activities and the perception of paranormally-gifted individuals in regional contexts (Middle and South Baden in the 19th and 20th century)*

In this project, with the focus on regional history, the biographies of individuals (from the 19th and 20th-century Middle and South Baden) with self-attributed or other-attributed “paranormal” abilities – such as clairvoyants, magicians, mediums, somnambules, spiritists, visionaries or miracle healers – are described and subjected to comparative analyses. By considering the biographies of and the actual practices employed by such queer characters, something may be learned about the processes of socialization and marginalization as well as about the contemporary social mindset. Of what kind were the real abilities as well as the social functions of those persons? How could their practical actions be described, which kind of methods did they apply? Were they in fact considered as marginal or were they regarded as a necessary part of the daily culture? How becomes a person to be known as a “clairvoyant” or a “miracle healer”? Were the careers of such persons lifelong or only short-time? How were the responses of the local environment, the authorities and the scientific community? A long forgotten important person in this context is the so-called “Seer of the Kinzig valley”, Bernhard Bischler (1884-1965), whose life and work have been researched more intensively.

Schellinger

Publication: (Schellinger 2020b)

*The „Sympathiedoktor of Simonswald“: Family Tradition - Social Function - Medical Phenomenon*

At the beginning of 2020, regional media (press + TV) reported extensively on Thomas Kaltenbach, the so-called “Sympathiedoktor of Simonswald”. Kaltenbach works at the local ‘Wisdishof’ in the Simonswald valley near Freiburg. He claims to be able to free both humans and animals from health problems with the help of a secret ritual han-





Fig. 20. The „Wisdishof“ in Simonswald (Photography: Michael Nahm).

will be investigated, such as the transmission of the mysterious healing abilities within the Kaltenbach family, the social embedding and function of such a healer, as well as biological-medical questions. On 21 October 2020, A. Anton, M. Nahm and U. Schellinger conducted a 3-hour interview with Thomas Kaltenbach and his father Karl Kaltenbach at their home in Simonswald. This interview was digitally recorded as well as carefully and professionally transcribed for its evaluation. Now, the approximately 100-page transcript constitutes the basis for addressing the above-mentioned questions.

*Uwe Schellinger, Andreas Anton and Michael Nahm*

### *Hans Bender, Carl Gustav Jung and the phenomena of synchronicity*

Hans Bender, German parapsychologist and professor at the Freiburg University, met with C.G. Jung, Swiss psychiatrist and analytic psychotherapist, on December 8, 1960. In connection with his mother's sudden death a few months earlier, Hans Bender had had impressive synchronistic experiences which he wanted to discuss with the famous analyst and theorist of synchronistic phenomena. The discussion was recorded, and the transcribed version is available here for the first time. On the basis of archival sources, which have hitherto not been analyzed, we examine in this article, among other things, the historical context of the discussion with the help of decades of written communication between the two scientists concerning their common interest in parapsychology, astrology, and UFO research, as well as the conception and meaning of synchronistic events. The latter is the central element of the discussion. A key aspect of our article is, therefore, a description of the phenomenon of synchronicity based on Hans Bender's concrete experiences during a drive through Switzerland to an Eranos Conference in Ascona and further on to the Côte d'Azur for a workshop of the Parapsychology Foundation. At the same time, in August 1960, his mother suffered a stroke, which caused her death shortly afterward. Bender was returning to Freiburg at the time when she died. He was familiar

ded down within the family. In particular, he has become known as a successful "Simonswald wart doctor". Due to a governmental order, however, he is now only allowed to treat animals. The study of this healer is interesting in many respects and continues earlier research on regional healer personalities conducted at the IGPP. In a joint project, various facets of the work of the "Sympathiedoktor of Simonswald"

with the stages of his trip from earlier trips. He had intensely emotional experiences at certain places, which he, in retrospect, interpreted as synchronistic in connection with his mother's death.

*Uwe Schellinger, Marc Wittmann and Andreas Anton*

*Publication: Schellinger, Anton & Wittmann (2021)*

### *Haunting phenomena in Freiburg from 900 years: A case and source collection*

From 1950 to the present day, the IGPP has been investigating and documenting cases of 'spook' and 'ghostly apparitions' throughout Germany and Europe. Nevertheless, 'haunting' occurrences and 'ghostly apparitions' that have occurred directly in Freiburg have only been little known. For the city's anniversary "Freiburg 2020: 900 Jahre jung", such cases have therefore been compiled on the basis of various types of sources (e.g., literature on the history of the city, local legend traditions, specialist parapsychological literature, relevant archives, personal reports). It was shown that the way of reporting cases has changed significantly over the centuries.

As a result of this research, the book „Freiburgs Gespenster: Spuk und Geister in der Stadt von 1800 bis heute. Ein Quellen- und Textbuch“ was published. However, due to the pandemic situation, accompanying activities within the framework of the city's anniversary, such as readings, could not be realized as planned. An open-air event in the Mensgarten, for which actors and musicians had been hired, had to be terminated early because of intense rain. Nevertheless, as a result of the high demand for the book, a second, improved edition was published in 2021. The project was also featured in various local print media as well as in film and radio.

*Uwe Schellinger and Michael Nahm*

*Publications: Schellinger & Nahm (2020); Schellinger & Nahm (2021)*

### *Empirical and theoretical aspects of research in anomalistics*

Scientific parapsychology covers a heterogeneous spectrum of unusual or anomalistic phenomena. In this project, various topics of anomalistics were treated, unusual near-death phenomena and biological implications of psi phenomena constituting the main topics.

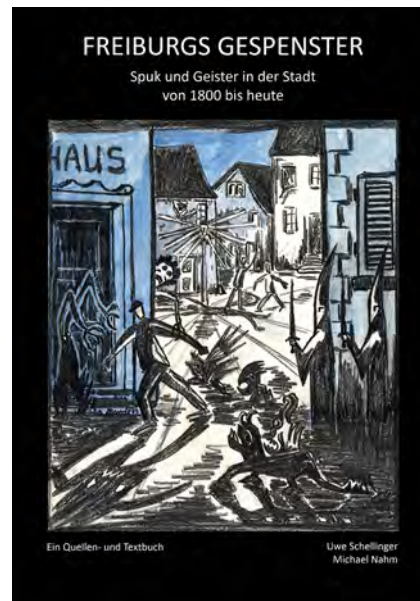


Fig. 21. Uwe Schellinger, Michael Nahm: *Freiburgs Gespenster. Spuk und Geister in der Stadt von 1800 bis heute*, Schwarz auf Weiss, Freiburg i. Br., 2020 (2. edition 2021).

With regard to the phenomenology of near-death experiences (NDEs), the results of a survey conducted in German-speaking countries were presented. It was shown that the sample hardly differed from other samples in terms of the content, intensity and depth of the NDEs as well as in terms of the demographic characteristics of the experiencers – also in international comparison. According to the reports, the NDEs were not always related to real closeness of death, but also occurred under more harmless circumstances. Nevertheless, the intensity, depth and aftereffects of these experiences were comparable. Regardless of the circumstances, NDEs were often described as exceptional experiences (Nahm, Schmied-Knittel & Weibel 2020). Furthermore, a publication on the „timing“ of out-of-body experiences (OBEs) in the context of NDEs, which had already appeared in German, was supplemented, translated, and published in English. Using various lines of argumentation, it was shown that these OBEs seem to occur consistently in real time during apparent unconsciousness and that they are not merely reconstructed from unconsciously stored sensory impressions when consciousness is regained, as is sometimes assumed (Nahm & Weibel 2020). A knowledge that has seemingly remained intact for a period of time, but without consciousness, also plays a role in so-called reincarnation cases. Some of these cases are sufficiently well documented to justify the assumption that these occurrences constitute genuine anomalies. The implications of these cases for the potential survival of consciousness after death were discussed in an essay submitted to a competition on the question of survival, organised by US millionaire Robert Bigelow. The essay argued that alternative explanations for reincarnation cases, such as fraud, misinterpretation or psi abilities of the living, are less plausible than survival of any kind (Nahm 2021a). The essay won a prize of \$50,000, which was awarded to Michael Nahm on December 4, 2021 in Las Vegas. Additionally, a critical commentary on another alternative interpretation model of reincarnation cases was published (Nahm 2021b). A further article on unusual death-related experiences concerned luminous phenomena and cloud-like formations that, according to recurring reports for over 200 years, are sometimes said to emerge from the bodies of the dying. A classic example from the literature was used to draw attention to these accounts and to stimulate future research (Alvarado & Nahm 2021). In the course of literature research for this article, it was noticed that a well-known Argentinean parapsychologist and former president of the Parapsychological Association, Alejandro Parra, presented reports collected by other authors as reports collected by himself. It was ultimately revealed that he had systematically plagiarised texts by other authors in various languages since at least 2006, and even presented data obtained in studies performed by other scientists as his own (Nahm 2021c). Parra was subsequently expelled from the Parapsychological Association and also lost his position as head of the Instituto de Psicología Paranormal in Buenos Aires.

Unusual phenomena near death are often accompanied by biological anomalies, such as the perception of the environment in OBEs during times of apparent unconsciousness, or also unusual healings in connection with near-death experiences. However, various authors have also emphasised in the past that the occurrence of psi phenomena by itself has



enormous significance for biology or for theoretical models of understanding life on a very fundamental level. One of these authors was the German biologist and philosopher Hans Driesch (1867–1941). During his lifetime, he strongly advocated parapsychology and is considered a main representative of „vitalist“ biology, according to which processes of life cannot be explained exclusively by the laws of physics and chemistry. Driesch is also considered a founder of theoretical biology. He specifically introduced holistic thinking into biology what led to the development of further concepts such as holism. In order to demonstrate that many of his thoughts are still relevant today, a monograph on Driesch was published (Krall, Nahm & Waldrich 2021, Fig. 22). Michael Nahm highlighted the important role of parapsychology in Driesch's thinking (Nahm 2021d) and discussed currents of holistic biology in the context of his philosophy, ranging from Immanuel Kant and Arthur Schopenhauer to Carl Gustav Jung and Adolf Portmann (Nahm 2021e).

Another biological-historical work dealt with the experiments of the Austrian biologist Paul Kammerer (1880–1926), who was a renowned proponent of the concept of the „inheritance of acquired characteristics“. This concept was considered impossible in the prevailing opinion of biologists during the last decades, but was rehabilitated beyond doubt in the course of the steadily growing research on „epigenetics“. Kammerer's work was heavily criticised already during his lifetime, although this criticism was not always justified. In this respect, little has changed until today. Hence, it seemed appropriate to set the record straight regarding some particularly pronounced misinformation about Kammerer and his work (Nahm 2021f). Finally, as a contribution to the monograph on Swiss biologist and parapsychologist Fanny Moser (1872–1953), the first patron of the IGPP, to be published in 2022, an article has been written on her biological work, which has received little attention outside of zoology. Moser's main zoological area of research concerned two subgroups of jellyfish, of which she was able to describe numerous species for the first time. Of her new species descriptions, 25 are still valid today. Consequently, Moser's work is still regularly cited in the relevant specialist literature. Unlike Hans Driesch and some



Fig. 22. Stephan Krall, Michael Nahm, Hans-Peter Waldrich: *Hinter der Materie. Hans Driesch und die Natur des Lebens*, Graue Edition, Zug, 2021.



Fig. 23. Body parts of the jellyfish species *Pyrostephos vanhoeffeni*, first described by Fanny Moser. Excerpt from Plate 29 of Fanny Moser's work from 1925 „Die Siphonophoren der deutschen Südpolar-Expedition 1901-1903; zugleich eine neue Darstellung der ontogenetischen und phylogenetischen Entwicklung dieser Klasse“. In: Deutsche Südpolar-Expedition, 17 (Zoologie 9), 1–451.

other biologists of her time, however, she remarkably never built a thematic bridge between her biological work and her parapsychological work, although several points of reference had been suitable for drawing such a connection.

*Michael Nahm*

*Publications: Alvarado & Nahm (2021); Krall, Nahm & Waldrich (2021); Nahm (2021a, 2021b, 2021c, 2021d, 2021e, 2021f); Nahm, Schmied-Knittel & Weibel (2020); Nahm & Weibel (2020)*

***Online Symposium: Exceptional Death-Related Experiences (20.11.2021, Parapsychological Association)***

In the frame of the Parapsychological Association's quarterly online symposia, a symposium was organised for November 2021 on the topic of extraordinary experiences related to near-death states and the survival of death. The five selected speakers discussed reports of near-death experiences in an intercultural context, results of a study on extraordinary experiences at the end of life in a Swiss hospital, empirical findings of an international study on after-death contacts, reports of young children about experiences made in the „intermission period“ between their present life and a supposed previous life, and presented an integrative synopsis of the most important aspects of these topics.

*Michael Nahm*

*Online Conference: Boundaries of Death: Scientific and Clinical Research (03.12.2021)*

In the frame of the French-German CIERA exchange project Boundaries of Death (coordination: Renaud Evrard), assistance was provided in organising an online conference on December 3, 2021, entitled “Boundaries of death: Scientific and clinical research“. The topics focused on spiritual and ethical aspects of palliative care as well as on extraordinary experiences near death, such as terminal lucidity and near-death experiences. A total of 13 speakers contributed to the successful course of this conference.

*Evrard and his team with Nahm*

## **The Occult in Art and Photography**

This field of work primarily is dedicated to the relationship between art and photography and occultism. It entails (a) archival and documentary work, (b) the handling of research requests, and (c) service, organizational and research tasks related to exhibitions and publications.

### *The Occult in Contemporary Art and Exhibitions*

Aesthetic practice often shows an influence of the occult which can be felt by numerous exhibitions during the last years, some of them were organized in cooperation with the IGPP. This relationship will be documented in detail and discussed in regard to their different theoretical concepts, the priorities in regard to the chosen artists or topics, or possible changes in public reception, print media and academic circles. These works are part of an explorative project which examines the various forms of artistic approaches to the ‘occult’. In 2020 a short version of a first survey on the IGPP’s participation in projects on a museum context was published in an anthology on the IGPP’s recent history since Mid 1990s. It also includes a short glance on the ‘prehistory’ of the topic, especially the relation of Hans Bender, the founder of the IGPP, to fine arts. Another topic which was widely taken into account was mediumistic art (Fig. 24). During the last two year the focus of the project was on the organisation of the exhibition on the photojournalist Leif Geiges, which – after



Fig. 24. Postcard showing the mediumistic painter Heinrich Nüsslein (1879–1847) with his autograph, private collection.

postponed due to technical reasons and the Covid-pandemic – finally took place at the Haus der Graphischen Sammlung at the Augustinermuseum in Freiburg between May 1 and September 26 2021 (see below).

*Andreas Fischer, together with Karin Moos  
Fischer (2020)*

***“Spuk! Die Fotografien von Leif Geiges”. Exhibition at the Haus der Graphischen Sammlung at the Augustinermuseum in Freiburg in cooperation with the IGPP***

From 1949 to the beginning of the 1970s the Freiburg based photographer Leif Geiges (1915-1990) documented some of the research activities from Hans Bender (1907-1991), the founder of the IGPP and since 1954 professor for psychology and frontier areas of psychology at Freiburg University. For example he was involved in Bender’s first investigations about poltergeist phenomena around 1950, he illustrated so called “spontaneous phenomenon” like clairvoyant dreams or depicted occult practices like table tilting or crystal gazing. He also photographed experiments on extrasensory perception

with Zener-cards or with the “highly gifted paragnost” Gerard Croiset carried out at the “Eichhalde-Institute”.

The exhibition presented for the first time an extensive overview on such photographs, which in its time of origin were published in popular newspapers and magazines (Fig 25). Hans Bender used the impressive images to popularise his research on the disputed research topic. With such articles he also funded the Institute’s activities as well as he used them to collect reports from the public about paranormal experiences for research purposes.

Leif Geiges studied at the renowned School for Arts and Crafts Reimann in Berlin and worked since Mid 1930s as a photojournalist among others at the Berliner Illustri(e)rten Zeitung and during the period of the Second World War at Signal, a magazine published by the Wehrmacht for propaganda



Fig. 25. Exhibition poster.

purposes. In 1948/1949 he founded in his hometown Freiburg the “Photographische Atelier für Forschung, Wissenschaft und Kunst” (Photographic studio for research, science and arts). Then he had no relation to parapsychology, but after meeting Bender

in summer 1949 he dedicated himself with compassion to the unorthodox topic. He gave much attention to the theoretical background of the motifs and also showed a remarkable artistic imagination. The photographs represent only a small part in the complete works of Geiges – particularly, he is known for photographs from the region of Baden – but they are of outstanding importance. Geiges was inspired by Bender's topic to a more experimental approach to photography using for example techniques like photo montage and multiple exposures. On the other hand Bender benefited from Geiges' objective view on the subject. It corresponded perfectly to Bender's point of view, that paranormal phenomena should be considered as everyday phenomena, which has to be investigated in an unprejudiced manner. From today's perspective Geiges' photographic work represents an individual approach to "magical realism", which mesmerizes due to its dialectic of normal and paranormal. It therefore represents a unique chapter in the over 150-year history of the photography in occultism and as well a meaningful link to "the occult in art".

The scientific preparation and the concept of the exhibition was in full responsibility of the IGPP. The exhibition was divided into nine sections and presented a selection of 88 vintage photographs by Geiges. The focus lay on sequences on poltergeist phenomena, above all the so-called "photographic reconstructions of reported poltergeist phenomena". Furthermore a selection of photographs from the history of occultism was included, also some objects from the library and the archives of the IGPP as well as other sources, among art works related to the topic like a sequence of photographs by Anna and Bernhard Blume. The detailed descriptions with which Leif Geiges explained his photo subjects are characteristic of his work. These texts have been reconstructed and have been included in their full length in the exhibition. The exhibition therefore gave a fascinating insight into the early days of the IGPP and into a disputed scientific field of the post-war era.

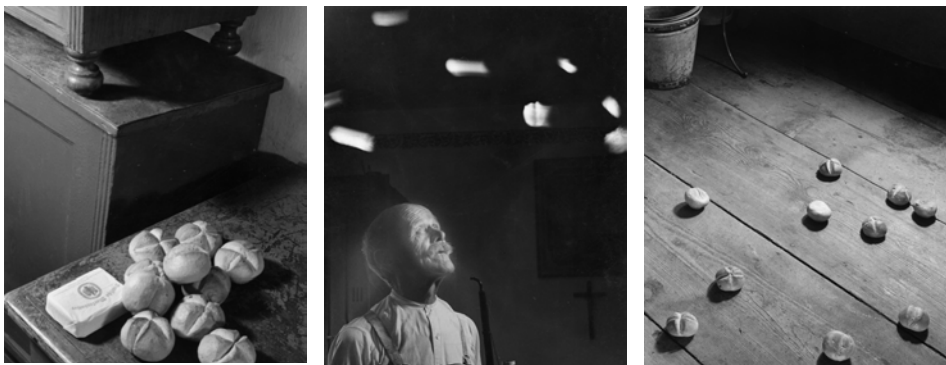


Fig. 26. Leif Geiges, The bread rolls. Mr Plach was in the village and had bought butter and bread rolls for his breakfast. In the kitchen, he put the butter and bread rolls on a chest next to the table. A few minutes later, the bread rolls began to fly around the kitchen like swallows... finally falling to the floor. Reconstruction of a reported paranormal phenomenon of 17.3.1947, 3-part sequence, Vachendorf, 1949, Archiv des IGPP.





Fig. 27. Exhibition view (Photography: Axel Killian/Städtische Museen Freiburg).

Most of the exhibits came from the archives of the IGPP, some others for example were loans from the archives of the Geiges' family in Staufen. Most helpful for research purposes was also the Haus der Geschichte Baden-Württemberg (House of History Baden-Württemberg) in Stuttgart, where a large part of the photographic estate of Leif Geiges is preserved. An exhibition catalogue was published at the Michael Imhof Verlag containing an introductory essay, an extensive section of images with notes and descriptions as well as an annex with detailed biographies and bibliography. The exhibition was very well received in the public, also during numerous guided tours and in the media (Fig 3: Front page of the newspaper FAZ from 8.7.2021). In this regard the exhibition has been an outstanding example for public relation at the IGPP, which of course owes its success to the exceptional "media campaign", once created by Leif Geiges and Hans Bender.

*Andreas Fischer and Dieter Vaitl, together with Eberhard Bauer, Karin Moos and Uwe Schellinger*

*Publikationen: Fischer (2021); Fischer & Vaitl (2021); Schellinger (2021)*

## Archives

### *Overview*

The tasks of the IGPP archives are the long-term protection, indexing, communication and utilization of documents and materials which are important for the cultural and social history and of the history of science of parapsychology viz. border areas of psychology in general, and for the history of the Institute in particular. Since the foundation of the IGPP, the documentation and collection of relevant research material belong to its central tasks. Special archives with its own structure were established after the Institute

has moved from the “Eichhalde” to the “Wilhelmstraße” in 1996. Due to its specific and unique profile, the IGPP archives are of a particular significance within German and European scientific culture. As a special and scientific collection, the IGPP archives are corporate member of the “Association of German Archivists” (VdA).

### *Record Groups and collections*

The IGPP archives consist of several major groups of records and collections: photographs; audio material; film material; objects; and completed databases. The main body consists of research files of the Institute when it was located at the “Eichhalde” (Freiburg) from 1950 to 1995, among them collections of reports of spontaneous phenomena, like precognitive dreams, or collections of RSPK case studies, as well as the research files of the Institute in the “Wilhelmstraße” (Freiburg) since 1996. Next in line are partial or complete collections of personal papers (currently 40 holdings) belonging to a variety of important researchers in psychical research and parapsychology. Finally, there are collections of relevant items, e.g. of academic theses, reports or publications as well as comprehensive press collections (currently: 54 holdings). A more detailed overview regarding the archival holdings and general information on the archives can be found on the website of the IGPP at <https://www.igpp.de/archiv>. Current information on the archival work may be found on the website: <https://www.facebook.com/igpp.archiv>.

Not least due to the pandemic situation, there were no significant external acquisitions during the reporting period. But several IGPP staff members handed over extensive materials and documents from completed research projects to the Institute’s archives.

### *Use of the Archives*

Apart from the acquisition and securing of relevant material, the analysis and utilization for scientific projects is one of the major focus of archival work. Archival holdings are utilized by staff of the Institute as well as by external researchers (social sciences, history of science, or culture), whose research interests are approved by the IGPP.

During the period under review, several publications utilizing archival material of the IGPP Archives were produced. The following topics should be mentioned: Bernhard Bischler (1884-1965), the “Seer of the Kinzig valley” (U. Schellinger, see p. 31); Haunting phenomena and Ghosts in Freiburg (U. Schellinger & M. Nahm, see p. 33); Hans Bender (1907-1991) and the German Parapsychology (A. Lux, see fig. 29); Miracle



Fig. 28. Friedrich Jürgenson, Archives of the IGPP.



Healers in Postwar Germany (M. Black); Biologist and Parapsychologist Fanny Moser (1872-1953) (I. Schmied-Knittel, see p. 28–31); Hans Bender and Carl Gustav Jung in a discussion on synchronicity (1960) (U. Schellinger, M. Wittmann & A. Anton, see p. 32–33). A highlight was also the exhibition “Spuk! Die Fotografien von Leif Geiges”, which took place in 2021 in the Augustinermuseum in Freiburg, and which presented almost hundred exhibits from the Institute’s archives (A. Fischer, D. Vaitl, see p. 38–40).

### *Showcase into the IGPP Archive*

Between 2001 and 2009, monthly changing, small-scale exhibitions were shown in the rooms of the IGPP under the title “Showcase into the IGPP Archive”. A total of 99 episodes were created at that time. In 2021, this format was taken up again, again organized by U. Schellinger. Selected archival documents that are of interest to the history of science were exhibited and supplemented by online presentations. So far, the topics have been a remarkable perceptual illusion in nature, soccer and the paranormal, the electronic voice phenomena of Friedrich Jürgenson (Fig. 28) and the work of the “Freiburg Anomalous Mind-Machine Interaction Group (FAMMI)”.

*Eberhard Bauer, Andreas Fischer and Uwe Schellinger*

## **Library**

### *History*

The historical basis of the Institute’s library comprises the collection of the Swiss biologist and psychical researcher Dr. Fanny Moser (1872–1953). Among its 2000 volumes rare original editions from the early history of mesmerism, magnetism, occultism and psychical research can be found. Another important collection of 2500 volumes belonged to Albert von Schrenck-Notzing, M. D. (1862–1929), a Munich physician and psychotherapist and a well-known pioneer of researches into “physical mediumship”, including telekinesis and materialization phenomena. Starting with 1970, with the help of the Stiftung Volkswagenwerk, it became possible to build up systematically a comprehensive collection of literature dealing with parapsychology and other anomalistic research topics. Since 1973, the IGPP library has been supported by the Deutsche Forschungsgemeinschaft (DFG) (German Research Society) as a specialized research library for Parapsychology and Frontier Areas of Psychology. From 2011 to 2014, the DFG was supporting the IGPP library as a special collection (Sondersammelgebiet) as part of the University library of Freiburg. The IGPP is responsible for the scientific supervision and selection of the library and collaborates closely with the University Library of Freiburg which is the owner of the library holdings and responsible for its technical administration. For details see: <https://www.ub.uni-freiburg.de/grenzgebiete-der-psychologie-parapsychologie/>.

### *Profile of the library*

The task of the library is a systematic and comprehensive collection of the whole spectrum of the domestic and international scientific literature dealing with parapsychology,

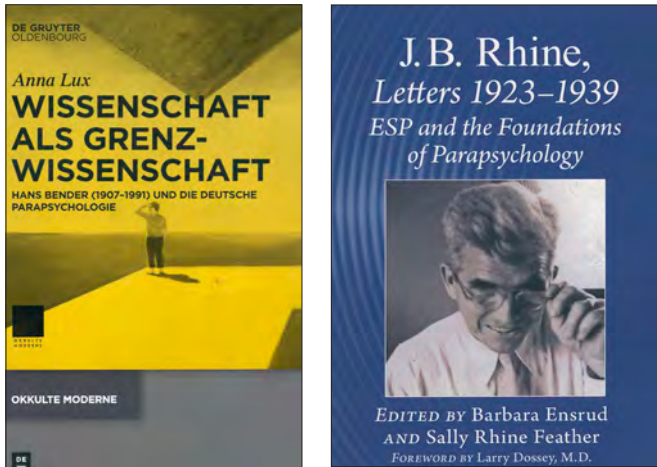


Fig. 29. Some acquisition to the Institute's library: Anna Lux: *Wissenschaft als Grenzwissenschaft. Hans Bender (1907–1991) und die deutsche Parapsychologie*, Berlin, Boston, De Gruyter Oldenbourg, 2021; J. B. Rhine. *Letters 1923–1939. ESP and the Foundations of Parapsychology*, ed. by Barbara Ensrud und Sally Rhine Feather, Jefferson, North Carolina, McFarland, 2021.

psi research and anomalistics (including so called “grey” literature). This includes (1) spontaneous paranormal experiences like telepathy, clairvoyance, precognition, psychokinesis, apparitions, paranormal impressions and RSPK or poltergeist phenomena together with relevant case collections, field studies, laboratory experiments and theoretical models comprising its historical development, methods, results, problems, controversies and interdisciplinary aspects of research into scientific border areas; (2) psychological fringe experiences like out-of-body and near-death experiences, lucid dreams or multiple personalities; (3) collecting the whole spectrum of “fringe sciences”, like occultism, spiritism, e. g. “occult techniques” such as pendulum, after life contacts, mediumistic communications, channeling, memories of previous lives, voices on tape; (4) esoteric and New Age literature; (5) dowsing and radiesthesia (“earth rays”); (6) mental and spiritual healing and complementary medicine; (7) magic, possession, witches and demons; (8) secret societies, sects, lodges; (9) cabbala, numerology, symbolistics; (10) divination and oracle techniques (Tarot, I Ging); (11) UFO research; (12) conjuring magic and trickery; (13) the whole field of “anomalistics”, including phenomena in the sense of Charles Fort (“Fortean”), e. g. cryptozoology (Loch Ness, Bigfoot), Atlantis, Bermuda Triangle, Ancient Astronauts etc.; (15) literary descriptions of ‘esoteric’, ‘occult’ and paranormal phenomena.

### *Holdings*

With currently about 69000 volumes, the Freiburg library is one of the largest of its kind in Europe. Every year it grows by about 400 volumes. It currently subscribes to 150 journals and newsletters from all over the world. All international journals for parapsy-

chological and anomalistic research are fully available. Its current stock of journals comprises about 2300 references, more than half of which are unique, i.e. only available in the special library in Freiburg. This makes this library a unique source of information in Germany and Europe for all questions related to parapsychology and frontier areas of psychology. All holdings of the institute's library are listed in the online catalogue of Freiburg University Library and can be borrowed directly from the UB Freiburg ([www.ub.uni-freiburg.de/olix](http://www.ub.uni-freiburg.de/olix)). In the years 2020 and 2021 about 6000 loans (local and interlibrary loan) were received. In 2005 the IGPP started in cooperation with the University Library of Freiburg to digitize selected parts of the IGPP journal collection and to make them available on the Internet. Aspects of preservation (desintegration of paper) and their historical source value for the cultural, social and scientific history of spiritualism, occultism, psychical research and parapsychology play a decisive role in their selection. Until 2015, nine journals were published online ([www.ub.uni-freiburg.de/dipro/igpp/](http://www.ub.uni-freiburg.de/dipro/igpp/)): (1) *Magikon* (1840–1851); (2) *Sphinx* (1886–1896); (3) *Psychische Studien* (1874–1925); (4) *Zentralblatt für Okkultismus* (1907–1933); (5) *Zeitschrift für kritischen Okkultismus* (1925–1928); (6) *Zeitschrift für Parapsychologie* (1926–1934); (7) *Das Wunder* (1927–1929); (8) *Neue Wissenschaft. Zeitschrift für Grenzgebiete des Seelenlebens* (1950–1968); (8) *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie* (1957–1968). The digitisation of further historical journals is being prepared.

*Eberhard Bauer*

*Publications: Bauer (2020c, 2021d)*

## 2.3 Counseling and Psychological Counseling Research

### Counseling and Information

#### *History*

Since its foundation in 1950 by Prof. Hans Bender (1907-1991), the IGPP has provided the public with an information and counseling service covering the whole spectrum of parapsychology, fringe sciences and anomalistic phenomena, summarized under the neutral term *Exceptional Experiences* (ExE). This includes information about the distribution and phenomenology of ExE together with expert knowledge regarding the state of the art of interdisciplinary research related to frontier areas of psychology and anomalous phenomena. A special counseling and therapy service of the Institute is available for those people who are looking for help in coping and handling “occult”, “extrasensory” and paranormal experiences in view of disturbing or stressful experiences (“mental hygiene”).

#### *Counseling in the context of the recent history of the Institute*

In the anthology edited by Dieter Vaitl “An den Grenzen unseres Wissens: Von der Faszination des Paranormalen” (Vaitl 2020a), the development of counseling work and counseling research at the Institute over the last 20 years is presented in its important steps. Based on the concept of “psychohygiene [mental hygiene]”, which is anchored in the Institute’s statutes, the conventional parapsychological counseling practice was explicitly supplemented with clinical-psychological content and psychotherapeutic concepts. This process of professionalization the counselling services included the following phases: (1) the development of a documentation and classification system for ExE; (2) the accompanying detailed description of the structure of the IGPP counseling clientele; (3) the description of the sequence of phases of counseling work, taking into account the very heterogeneous concerns and psychological processes of advice seeking persons; (4) the progressive network building and public relations work; (5) between 2003 and 2013, the planning and implementation of accredited education seminars on ExE for psychological and medical psychotherapists on an annual basis; (6) the planning and implementation of international expert meetings on the topic of “clinical parapsychology” in Naarden (NL), Freiburg i. Br, Paris, Heidelberg and Pont-à-Mousson (France).

Parallel to the counseling practice and related activities, empirical and conceptual research has been conducted continuously. The most important stages are recapitulated in a separate chapter of Vaitl’s anthology: (1) the development of a *model of phenomenon basic classes* of the mental representation of ExE (see Fig. 30); (2) an ExE classification system based on it; (3) the phenomenological description of ExE patterns and client types and their factor- and cluster-analytical foundation; (4) the construction of a *Questionnaire on the Phenomenology of Exceptional Experiences* (PExE-R), anchored in the model of phenomenon basic classes, and its validation and revision; (5) empirical studies with the PExE-R on the distribution and contextual factors of ExE in different populations; (6) phenomenological studies on modes of consciousness and mental stability in ExE; (7)

plan-analytical case studies on the role of motives and basic needs in advice-seeking clients with ExE; (8) conceptual approaches and research on the ontological understanding of ExE based on a dual-aspect monism.

*Eberhard Bauer and Wolfgang Fach*

*Publications: Bauer & Fach (2020); Fach & Bauer (2020)*

### *Patterns of exceptional experiences*

Depending on the cultural tradition or ideological background ExE are described as *supernatural, supersensory, magical, paranormal, spiritual, transcendent, transpersonal* etc. Ever since, such experiences belong to the varieties of human experiences that are well-known across cultures. The varieties of ExE which are reported by IGPP clients can be grouped into six major ExE patterns: (1) As *extrasensory perception* such experiences can be described when persons outside their usual sensory channels get information about objective events unknown to them (“clairvoyance”) or about thoughts and feelings of other persons (“telepathy”). This category implies also the knowledge of unpredictable future events (“precognition”, “announcing dreams”); (2) *internal presence and influence* manifest themselves in somatic symptoms, ego-dystonic feelings and thoughts or the hearing of inner voices, which are attributed to other persons, foreign powers, black magic, cursing etc.; (3) *mediumship and automatisms* include physical modes of behavior and expression that are experienced as alien to the self and beyond the control of the will, which occur spontaneously or self-induced in dealing with practices (e.g. pendulum, automatic writing, glossolalia, channeling) and are usually interpreted as inner occupation by ghosts or deceased persons; (4) *meaningful coincidences* are described as facts and events which, from the point of view of those affected, are connected or caused in an unusual way (e.g. an accumulation of misfortunes, the special role of a certain number in a person’s life etc.); (5) *poltergeist and apparitions* encompass physical anomalies (the disappearance or appearance of objects or their movement without apparent cause), acoustic phenomena (e.g., steps, raps) and visual impressions (lights, shadows, shapes etc.); (6) *nightmare and sleep-paralysis* finally describe the feeling of an invisible presence and external influences on the body in states close to sleep and when waking up (“nightmare”). In particular, sensations of being touched, pressure on the body or sexual manipulation occur, accompanied by an inability to move the body (sleep paralysis).

ExE are occurring mostly spontaneous, i.e. unexpected and without apparent cause. They can be self-induced by techniques like automatic writing or practices of meditation. In addition there are externally induced ExE which are reported after having contacted healers, psychics, clairvoyants or after the use of offerings from the esoteric market. Many people can appreciate such experiences in a positive way and are able to integrate ExE in their worldview. Given specific circumstances, however, ExE can also induce emotional distress and anxieties which afflicted persons have problems to cope with adequately. Often the search for explanations and practical help is in vain in the existing psychosocial care institutions. The goal of IGPP counseling work is to improve the situation for people

who are looking for help. The counseling service is free of charge and open to everyone.

## **Counseling and Care Activities**

### *Documentation system*

With the help of the documentation system (DOKU), introduced at the IGPP in 1998 in accordance with current standards for basic documentation, about 5.000 people requesting for counseling concerning ExE were recorded and evaluated. The results reveal over the years quite similar patterns concerning the reported exceptional phenomena, the sociodemographics of the advice-seeking people and the distribution of clinically significant variables.

### *Number of counseling cases*

In 2020 and 2021, in addition to general requests for information, people 155 from all over Germany took advantage of the special counseling service for people seeking help with ExE. About 13% of the clients came from the Freiburg region and about one third from Baden-Württemberg. Clients made about two-thirds of initial contacts by telephone and one-third by e-mail. The counseling of all advice seekers took about 1.200 contacts with an average of about eight contacts per case. One third of the contacts were in-depth counseling sessions, 5% were therapeutic sessions, and the rest were contacts that served to provide information, organize counseling sessions, or, for example, professional exchanges with care facilities and treatment providers. In addition to the regular counseling contacts, there are more than 1.000 requests for information by telephone, letter and e-mail coming from journalists, students, people interested in science and the public regarding parapsychological research and anomalous phenomena.

### *Clientele*

In the period of 2020 and 2021, the clientele had a share of women of 61% and the average age was 50 years. About 38% of those seeking advice did not belong to any denomination. As in previous years, the level of education was relatively high: 65% had a technical college or university entrance qualification and 45% had a technical college or university degree. The tendency toward social withdrawal was also constant: 65% of the clients did not have a close partnership, 48% were single, 25% married and 27% divorced or widowed. About 62% of those seeking advice lived alone. At the time of contact, 43% were unemployed, unable to work or already retired. Around 82% of those seeking advice reported social problems (separations, financial difficulties, etc.), 73% complained of psychological stress (stress, tendency to anxiety, depression, etc.) and 57% of physical complaints and illnesses. Accordingly, 73% of the clientele felt burdened not only by ExE but also due to their general life circumstances. Despite the lack of information in the majority of cases, a good quarter of the clientele is known to have been in psychotherapeutic or psychiatric care before or during their counseling contacts with the IGPP. It is estimated that the actual percentage is up to 50%. Approximately 56% of those seeking

advice described symptoms that were classified by the clients as possible indications of the presence of a mental disorder. More than half of all clients rated their ExE as clearly negative and experienced it exclusively as stressful, while just under 40% were ambivalent and less than 10% had a positive assessment.

*Frequencies of phenomenon basic classes*

ExE can be attributed to four basic classes of phenomena shown in figure 30. In the years from 2020 to 2021, 59% of the advice seekers reported *external phenomena*, 53% reported *internal phenomena*, 46% reported *coincidence phenomena* and 20% reported *dissociation phenomena*. Because the coincidence ExE patterns, i.e., *extrasensory perception* as well as *meaningful coincidences*, and the dissociative ExE patterns, i.e., *mediumship & automatism* and *nightmare & sleep paralysis*, occur in conjunction with internal and external phenomena, and advice-seekers reported one to two patterns on average, the

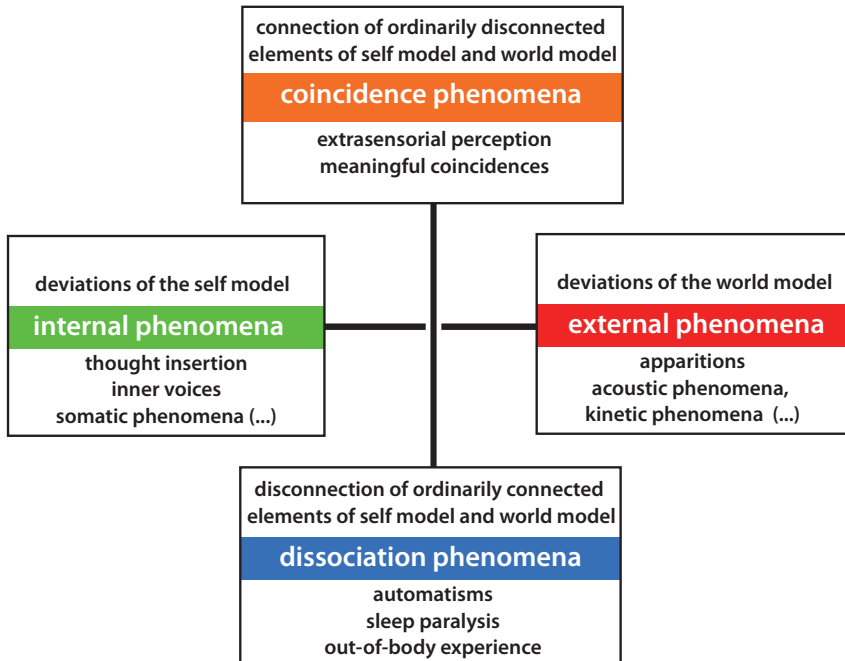


Fig. 30. The four phenomenon basic classes. Based on Metzinger’s postulate that the human model of reality is composed of two basic elements, the self-model and the world-model, four classes of phenomena as deviations in the reality-model are possible: Internal phenomena in the self-domain and external phenomena in the world-domain can be predicted. Concerning the dichotomy of self and world, coincidence phenomena as exceptional connections of ordinarily disconnected elements, and also dissociation phenomena as exceptional disconnections of ordinarily connected elements of both domains, can be expected. All phenomena that form the six described typical patterns of ExE can be attributed to the four basic classes.



total percentage sum is over 100%.

*Wolfgang Fach, Ricarda Blaha and Annette Zwickel*

## **Research on Exceptional Experiences**

### ***Preparation of old counseling cases for future research***

In accordance with the documentation requirement applicable in IGPP counseling, case data is kept for at least 10 years after the end of a counseling process in compliance with the European Data Protection Regulation (GDPR). The IGPP case collection is a unique repository for ExE research. More than 3.000 cases from the period 1998 to 2009 have now been screened to clarify how they should be further dealt with. The aim of the project is to select case material that is no longer subject to mandatory documentation, but which appears to be worth preserving for qualitative research purposes. It was found that in 43% of the cases, in addition to the basic documentation used to record information for statistical purposes and quantitative research, there is further material that could be of interest for qualitative studies. This includes experiential reports, documents, photos, as well as audio recordings of counseling sessions in 11% of the cases and video recordings in 2% of the cases, which were made with the consent of the clients. In a first step, the materials were categorized according to ExE patterns and analog audio and video recordings were digitized for later processing. The next step is to review and evaluate the content of the material in order to decide on its further utilization. If information is to be preserved in the long term and not destroyed, strict data protection obligations must be observed. Personal information must be subjected to elaborate procedures of pseudonymization or anonymization, depending on the intended use and future storage location.

*Wolfgang Fach, together with Helene Lock*

### ***ExE and bonding styles among advice seekers***

The six typical ExE patterns in IGPP counseling phenomenologically form an internal continuum from *extrasensory perception* (ESP) to *internal presence and influence* (IPR) and to *mediumship and automatism* (MED) on the one side and an external continuum from *meaningful coincidences* (MCO) to *poltergeists and apparitions* (PGA) and to *nightmare and sleep paralysis* (NIM) on the other side. Statistical analyses of more than 2.300 counseling cases documented between 1996 and 2014 show that clients differ significantly in terms of their social bonding depending on the ExE patterns they report. Attachment research describes typical adult bonding styles that are predominantly based on childhood experiences with primary caregivers. A *secure-autonomous* bonding style is associated with a balance of autonomy and bonding. Lack of care or maltreatment in childhood promotes an *insecure-dismissing* style that emphasizes autonomy and avoids bonding, or an *insecure-enmeshed* style that emphasizes bonding and avoids autonomy. In particular, an *insecure-disorganized* style is observed in cases of early trauma due to abuse or loss.

A bonding index  $b$  was calculated from the variables “marital status”, “close partnership”

and “housing situation”. It can reach values from 0 to 1. A value of  $b = 1$  means that a person lives together with someone in a closed relationship and is married. In a sample of counseling 957 cases with complete data for its calculation and for conducting a cluster analysis based on the six ExE patterns, the bonding index is  $b = .49$ . In figure 31 the types of advice-seekers, each representing an ExE-pattern, are shown with hypothetically assigned bonding styles, bonding indices and, additionally indicated separately, the percentage of close partnerships ( $p$ ). Differences between types are highly significant ( $p < .001$ ) with respect to both  $b$  and  $p$ . On the internal continuum, the bonding index decreases starting from the ESP type ( $b = .51$ ) to the IPR type ( $b = .43$ ) and then increases to the highest values for the MED type ( $b = .58$ ). On the external continuum, the bonding index increases starting from the MCO type ( $b = .52$ ) to the PGA type ( $b = .55$ ) and then decreases to the lowest level at the NIM type ( $b = .36$ ). The differences in close partnership are even more striking.

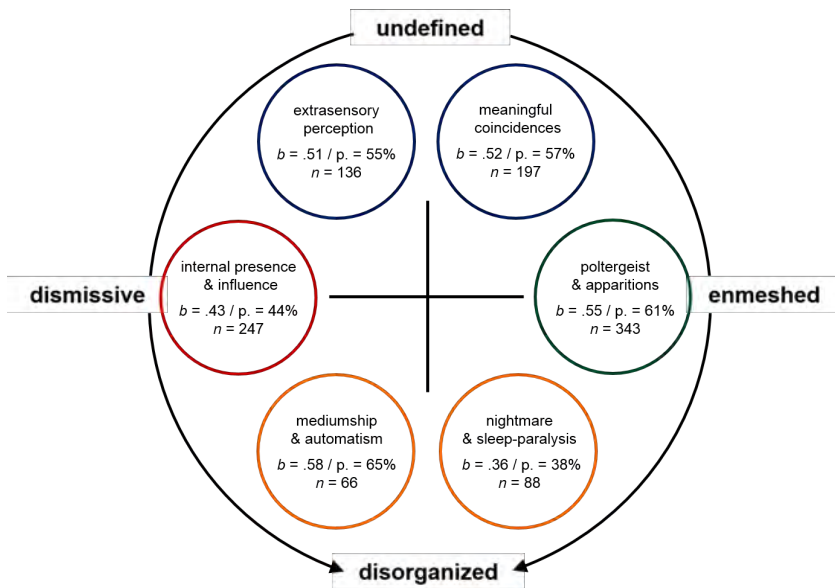


Fig. 31. Client types ( $n = 957$ ) with bonding indices ( $b$ ) and percentages of close partnership ( $p$ ) associated with bonding styles.

The results suggest that internal phenomena tend to be associated with a dismissing bonding style and external phenomena with an enmeshed bonding style. Clients with the IPR pattern tend to be socially withdrawn, whereas PGA phenomena occur predominantly in social systems with strong interpersonal bonding. The fact that the dissociative patterns each contradict the tendency of the patterns that precede them indicates, like

the psychophysical phenomena, a disorganized bonding style. This could result from the fact that the current bonding situation is not compatible with the genuine bonding style of the person concerned: The bonding of the MED type opposes his need for autonomy and the autonomy of the NIM type opposes his need for bonding.

In order to empirically confirm the previously speculative relationships between bonding representations, bonding styles, and ExE, studies using Strauss and Lobo-Drost's *Adult Attachment Prototype Rating* (AAPR) will be conducted in the near future. The AAPR uses a so-called relationship interview to explore bonding history from the past to the present and current relationship behavior. On this basis, the respondents are classified into bonding styles.

*Wolfgang Fach*

### *Test quality of the Questionnaire on the Phenomenology of ExE (PExE-II)*

The *Questionnaire on the Phenomenology of Exceptional Experiences* (PExE-R), which has been used in counseling practice since 2011, was revised for the second time in 2017 after validation on IGPP clients ( $n = 270$ ), people with near-death experiences ( $n = 176$ ), students ( $n = 333$ ), and the Swiss normal population ( $n = 1324$ ). The new PExE-II contains an ExE global scale with 20 items with four subscales: *externality*, *internality*, *coincidence*, and *dissociation* with 5 items each. The items are no longer presented in blocks as in the PExE-R, but in randomized order.

The PExE-II was tested again on (1) ExE clients ( $n = 193$ ) of the IGPP and the Parapsychological Counseling Center of the WGFP in Freiburg (Zwickel), (2) students ( $n = 450$ ) of the universities of Bielefeld (Krischke), Giessen, and Hagen (Tremmel & Ott), and (3) participants of an online survey ( $n = 380$ ) on sleep paralysis (Mayer & Fuhrmann). All data was collected in 2018 and 2019. The ExE construct could be replicated very well with a 3-factor solution in all samples. The very rarely reported dissociation items do not form a separate factor in the samples of clients and students, but load on the internal and/or external factor in accordance with the theory. Simulation studies have shown that stable 4-factor solutions are not to be expected, especially in the normal population with its low ExE occurrence at  $n \geq 600$ . For advice seekers with ExE,  $n \geq 300$  is usually sufficient. The internal consistency of the global scale is very good with a Cronbach's  $\alpha$  of .89 in the sample of advice-seekers, .86 in the students sample and .86 in sample with sleep paralysis. The reliabilities of the subscales are also good, especially for the advice seekers with  $\alpha$  between .84 (externality) and .79 (dissociation), for the students between .72 (externality) and .67 (internality, dissociation) and for the persons with sleep paralysis between .79 (coincidence) and .66. (dissociation). The values of the three scales below .70 are also still satisfactory, considering that they are formed by only five items.

Based on the studies conducted to date, values below the students' mean values (global:  $M = 0.9$ ,  $SD = 0.5$ ), which can also be assumed for the general population, can be considered "low", and values up to one standard deviation above this can be considered "increased". Values above the mean of those seeking advice can be considered "high" and

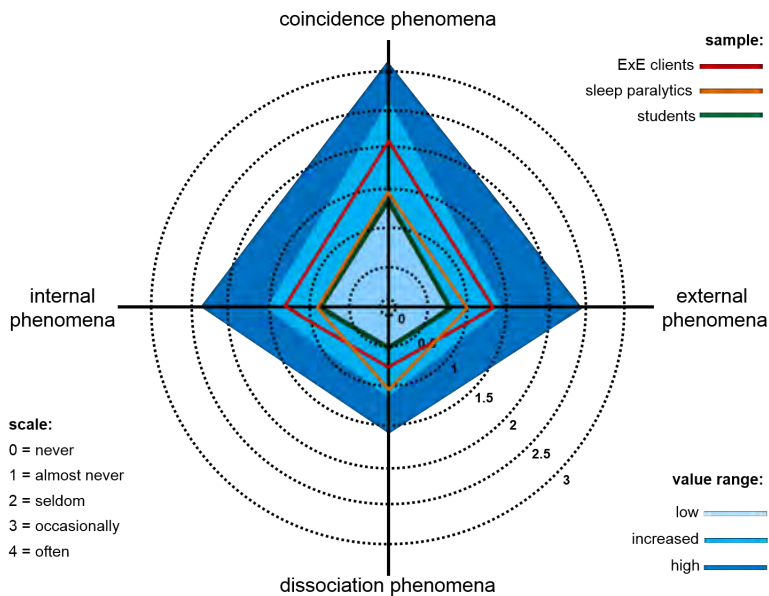


Fig. 32. Value ranges of the three samples.

values more than one standard deviation above can be considered “very high.” As shown in figure 32, this means with respect to the subscales that, for example, the sleep paralysis sample is hardly increased in internality and coincidence, only slightly increased in externality, but significantly increased in dissociation, almost reaching the high range. With regard to the global scale, it can be assumed that in the general population including students 60% can be classified as low, 24% as increased, 15% as high and at most 1% as very high. For ExE advice seekers, 29% can be classified as low, 24% as increased, 38% as high, and 9% as very high.

*Wolfgang Fach, together with Max Fuhrmann, Ralph Krischke, Gerhard Mayer, Ulrich Ott, Michael Tremmel and Annette Zwickel*

### ***ExE and psychoticism - Discriminant validity of the PExE-II***

As part of the 2019 survey of clients seeking advice on ExE ( $n = 175$ ), the Personality Inventory for DSM-5 (PID-5) psychoticism scales were used, among others, to assess the extent to which ExE can be distinguished from subclinical and clinical symptoms of a psychosis continuum characteristic of schizotypy and schizophrenia. *Psychoticism* in PID-5 includes *cognitive and perceptible dysregulation* (DYS, 12 items), *eccentricity* (ECC, 13 items), and *unusual beliefs and inner experiences* (UBE, 8 items). The scales measure cognitive (DYS), behavioral (ECC), and perceptual characteristics (UBE), which are intended to assess clinical impairment. According to DSM-5, they have particular relevance for schizotypal personality, whose symptoms are often associated with ExE in

clinical psychology.

The factor analysis of the combined items provided a five-factor solution that could be interpreted in a meaningful way. The PExE-II items of the *externality*, *internality*, and *coincidence* scales formed independent factors, as in the case of a separate analysis. The items of the *dissociation* scale loaded on the *externality* and *internality* factors, in line with theory. The items of the ECC scale of PID-5 also formed an independent factor as well as most of the items of the DYS scale did. However, a couple of the items of the latter loaded on the PExE factors *externality* and *internality*. No separate factor was formed by the items of the UBE scale. They predominantly loaded on the PExE factors *externality* and *coincidence*.

The factors were correlated most often weakly to moderately ( $.22 \leq r \leq .44$ ). A strong correlation ( $r = .57$ ) was only found between the ECC factor and the DYS factor of PID-5. Overall, both the factorial and discriminant validity of the PExE-II can be considered to be given. The scales of the PExE-II obviously capture different constructs than the psychoticism scales measuring *eccentricity* and *cognitive and perceptive dysregulation*. The construct unusual beliefs and inner experience in the psychoticism of PID-5, on the other hand, can be described in a more differentiated way by the PExE scales *externality* and *coincidence* in the present sample of clients seeking advice.

A publication of the present results in conjunction with previous research findings on ExE is intended as a contribution to the discussion of whether ExE should be located on a psychosis continuum.

Annette Zwickel

### *Establishment of a counseling focus on “Spiritual and meditation-induced crises”*

Spiritual practices such as yoga and meditation enjoy great popularity in Western societies, and practitioners turn to them for a great variety of motives. Undoubtedly, such practices have multiple health-promoting psychological and physical effects. Under certain circumstances, however, they can at times also lead to unusual and stressful experiences, even to states of crisis, which require professional support and assistance. Problems and crises of this kind have been discussed in the literature under the term spiritual crisis, among others.

Under the direction of Dr. Liane Hofmann and in cooperation with the Spiritual Emergence Network, Germany (“S.E.N. e. V., Deutschland”), a new telephone counseling service was established at the IGPP in 2021. Persons who, according to their own appraisal, are going through a spiritual crisis can receive initial orienting information and support here.

Directly related to this is the establishment and further development of an additional counseling focus at the IGPP: “Spiritual and meditation-induced crises.” In 2017, Dr. Liane Hofmann as the first editor and co-author of the anthology “Spiritualität und spirituelle Krisen. Handbuch zu Theorie, Forschung und Praxis” (“Spirituality and spiritual crises. Handbook on Theory, Research and Practice”), laid a theoretical foundation on

the topic of therapy and counseling for spiritual and meditation-induced crises. Together with Dr. Ulrich Ott, who is conducting research on the topic of negative side effects of meditation, essential theoretical, practice-oriented therapeutic-consultant as well as empirical foundations around the topic of “spiritual and meditation-induced crises” have thereby been worked out in a first phase. In a further step, the transfer of the insights gained in this way into therapeutic and counseling practice is to be advanced, with the objective of contributing to an improvement of health care services for those affected.

*Liane Hofmann and Ulrich Ott*

## 3. Personnel

### 3.1 Corporate Members

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### **3.4 Management**

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Prof. Dr. Stefan Schmidt, director (since January 2021)

### **3.5 Administration**

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### **3.6 Service**

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Kirsten Krebber, M.A., assistant, editor

Karin Moos, M.A., assistant, social media

Oliver Osburg, system management (until December 2020)

Uwe Schellinger, M.A., archivist

Dr. Frauke Schmitz-Gropengießer, assistant

Librarians of the University Library Freiburg: Julia Kuhn, Annette Schneider, Harald  
Volz

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PD Dr. Harald Atmanspacher, research staff (until December 2020)

Dr. Meltem Çınar Bozdağ (Visiting researcher, University of Ankara, Erasmus Program, September until November 2021)

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Lukas Hecker, PhD student, research staff (since January 2021)

Ellen Joos, PhD student (until December 2020)

Dr. Shiva Khoshnoud, research staff

Karolina Kirmse, research staff (since March 2021)

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Dr. Damisela Linares Gutiérrez, research staff (until December 2021)

Dr. Ulrich Ott, research staff

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Trainees: Tim Fleiner, Amelie Glaesmann, Hannah Habenicht, Lasse Hauf, Alexandra Jakobson, Jessica Knötzele, David Leitritz, Yannik Lieb, Lena Mohnke, Iraklis Pantazis, Moritz Pischel, Greta Polchi, Melanie Schulz, Sabrina Schirra, Benjamin Schult, Mareike Wilson

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Dr. Liane Hofmann, research staff

Dr. Gerhard Mayer, research staff

Dr. Michael Nahm, research staff

Uwe Schellinger, M.A., research staff

Prof. (apl.) Dr. Michael Schetsche, research staff (Coordinator: Cultural Studies and Social Research) (until August 2021)

Dr. Ina Schmied-Knittel, research staff

Melissa Zeeb, stud. assistant (until February 2020)

Trainee: Adrian Raum, Charlotte Weidler

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M.Sc. Ricarda Blaha, research staff

Dipl.-Psych. Wolfgang Fach, research staff

Dr. Liane Hofmann, research staff (since May 2021)

B.Sc. Helene Lock, scientific assistant (until May 2021)

M.Sc. Annette Zwickel, research staff

Trainee: Sybille Kunze

## 4. Appendix

### 4.1 Publications

#### *Refereed Publications*

Aeschbach V. M., Fendel J. C., Schmidt S. & Göritz A. S. (2021): A tailored mindfulness-based program for resident physicians: A qualitative study. *Complementary Therapies in Clinical Practice* 43, 101333.

Alvarez Igarzábal F. (2020): Experiencing the passage of time in video games. *Proceedings of the 13th International Philosophy of Computer Games Conference*, St. Petersburg State University.

Alvarez Igarzábal F., Hruba H., Witowska J., Khoshnoud S. & Wittmann M. (2021): What happens while waiting in virtual reality? A comparison between a virtual and a real waiting situation concerning boredom, self-regulation, and the experience of time. *Technology, Mind, and Behavior* 2(2).

Anton A. & Schetsche M. (2020): Vielfältige Wirklichkeiten. Wissenssoziologische Überlegungen zu Verschwörungstheorien. In *Verschwörungstheorien im Diskurs: Interdisziplinäre Zugänge* (4. Beiheft der Zeitschrift für Diskursforschung), ed. by S. Stumpf & D. Römer, Beltz Juventa, Weinheim, 88–115.

Anton A. & Schmied-Knittel I. (2021): Occultism in the GDR? The paranormal as heterodoxy of scientific worldview. *Baltic Worlds* 4, 29–36.

Bürkle J. J., Fendel J. C. & Schmidt S. (2021): Mindfulness-based and acceptance-based programmes in the treatment of obsessive-compulsive disorder: A study protocol for a systematic review and meta-analysis. *BMJ Open* 11(6), e050329.

Campos P., Wittmann M. & Costa R. M. (2021): Sexual function, personality, and body awareness. *Psicologia, Saúde & Doenças* 22, 424–435.

Costa R., Madeira A., Barata M. & Wittmann M. (2021): The power of Dionysus - effects of red wine on consciousness: A naturalistic study in a wine bar. *PLoS ONE* 16(9): e0256198.

Costines C., Borghardt T. L. & Wittmann M. (2021): The phenomenology of “pure” consciousness as reported by an experienced meditator of the Tibetan buddhist Karma Kagyu tradition. Analysis of interview content concerning different meditative states. *Philosophies* 6 (2):50.

Crabtree A. & Bauer E. (2021): On why history is never finished: Puysegur, animal magnetism, and the importance of collective scholarship. *Journal of the History of the Behavioral Sciences* 57.

Dorato M. & Wittmann M. (2020): The phenomenology and cognitive neuroscience of experienced temporality. *Phenomenology and the Cognitive Sciences* 19, 747–771.

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## 4.2 Doctoral, Master and Bachelor Theses

### *Doctoral Theses*

Joos E. (2020): EEG correlates of normal and altered processing strategies to solve the perceptual inference problem. Dissertation, Albert-Ludwigs-Universität Freiburg.

Linares Gutiérrez D. (2021): Effects of meditation-induced mental states and individual differences on subjective time. Dissertation, Albert-Ludwigs-Universität Freiburg.

### *Master Theses*

Bhatia K. (2020): Ambiguity vs. visibility: How the perceptual system responds to uncertainty. Masterarbeit, Albert-Ludwigs-Universität-Freiburg.

Brede L. (2021): Der Einfluss der „Australischen regenerativen Tiefenentspannung“ auf das autonome Nervensystem. Masterarbeit, Albert-Ludwigs-Universität Freiburg.

Hecker L. (2020): Neural correlates of ambiguity resolution. Evidence from fMRI and EEG. Masterarbeit, Albert-Ludwigs-Universität Freiburg.

Hruby H. (2020): Warten in der virtuellen Realität. Masterarbeit, Albert-Ludwigs-Universität Freiburg.

Knörzle J. (2021): Can rose odor help to improve memory consolidation during sleep and retrieval? Masterarbeit, Albert-Ludwigs-Universität Freiburg.

Müller L. (2020): Die Phänomenologie des Sehens: Ein qualitativer Ansatz für das Verständnis von informationellem Psi. Masterarbeit, Helmut Schmidt Universität / Universität der Bundeswehr Hamburg.

Reichert I. (2021): Sinnkrisen während mindfulness-based stress reduction. Masterarbeit, Justus-Liebig-Universität Gießen.

Rutrecht H. (2020): Der Einfluss von virtual reality auf Selbst- und Zeitwahrnehmung in Videospielen. Masterarbeit, Albert-Ludwigs-Universität Freiburg.

Treder J. (2021): Einflussfaktoren auf schwierige Meditationserfahrungen: Persönlichkeit und psychische Vorbelastung. Masterarbeit, Universität Basel.

Schmitt S. (2021): Wiederauftauchen belastender Erinnerungen und Gefühle aus der Vergangenheit während mindfulness-based stress reduction. Masterarbeit, Justus-Liebig-Universität Gießen.

Wilson M. (2021): EEG signatures of stable and unstable perceptual brain states. Masterarbeit, Albert-Ludwigs-Universität Freiburg.

### ***Bachelor Theses***

Lappenbusch L. (2021): Das Erleben von Depersonalisation und Derealisation im Rahmen des MBSR Programmes. Bachelorarbeit, Justus-Liebig-Universität Gießen.

Steck Y. S. (2020): Schwierige Meditationserfahrungen, Persönlichkeitseigenschaften und Meditationspraxis: eine Korrelationsanalyse. Bachelorarbeit, Justus-Liebig-Universität Gießen.

## **4.3 Raising of External Funds**

2020/2022: Kornmeier J., Tebart van Elst L., Wendland C. & Giersch A.: Using artificial intelligence to identify biomarkers for psychiatric disorders. Eucor – The European Campus, (€ 42.000,-).

2018/2020: Kornmeier J.: Neurex Doctoral Fellowship, (€ 90.600,-).

2020/2021: Kornmeier J.: Funding Program Open Access Publishing German Research Foundation (DFG) and the University of Freiburg, (€ 12.390,-).

2020/2021: Schmidt S.: Experimental testing of claimed anomalous effects in the Bem experiment on pre-cognition with the advanced meta-experimental protocol. John E. Fetzer Memorial Trust, USA, (US\$ 100.000,-).

2021/2022: Schmidt S.: Bem replication AMP-TTP2-3 proposal, Scients Institute, USA, (US\$ 49.541,-).