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JOURNAL OF SCIENTIFIC EXPLORATION

A Publication of the Society for Scientific Exploration

AIMS AND SCOPE: The *Journal of Scientific Exploration* publishes material consistent with the Society's mission: to provide a professional forum for critical discussion of topics that are for various reasons ignored or studied inadequately within mainstream science, and to promote improved understanding of social and intellectual factors that limit the scope of scientific inquiry. Topics of interest cover a wide spectrum, ranging from apparent anomalies in well-established disciplines to paradoxical phenomena that seem to belong to no established discipline, as well as philosophical issues about the connections among disciplines. The *Journal* publishes research articles, review articles, essays, commentaries, guest editorials, historical perspectives, obituaries, book reviews, and letters or commentaries pertaining to previously published material.



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EDITORIAL

This issue of the *Journal* contains the material on physical mediumship originally scheduled for the Spring *JSE*. The plan for that issue had been to focus on the Felix Experimental Group (FEG) and its medium Kai Mügge, and Michael Nahm and I had each written very long papers describing and evaluating our detailed and extensive investigations of the group. But as I mentioned in my Editorial in the last issue, *JSE* 28:1 (Spring 2014), as we were preparing to send the Spring issue to the printers, convincing evidence of fraud surfaced in the case, and the current issue now contains substantial revisions of those two long papers, reflecting what Nahm and I have learned and concluded in the interim. But first, since some (maybe many) *JSE* readers lack the background to put these contemporary investigations of physical mediumship into context, a few words on the subject are perhaps in order.

As regular readers of our Historical Perspectives papers will know, physical mediumship flourished during a roughly 80-year period beginning in the mid-nineteenth century. The widespread emergence of physical mediums corresponded to the beginning, and then the heyday, of the Spiritualist movement, which began in the United States in the 1850s, and spread quickly to Europe. Spiritualism in the West fostered a more secular spiritism—the view that personal consciousness persists after bodily death, and that although some people are especially gifted mediumistically the rest of humanity can also experience a direct connection to “the other side.” While mental mediums claimed to deliver messages from the deceased, say through automatic writing or trance impersonations, physical mediums purported to provide evidence of survival in various physical forms. The most common of these were “raps” or knocking sounds, either in the séance table or elsewhere in the room, typically answering “yes” or “no” questions by the number of sounds (e.g., two for “yes” and three for “no”). Sometimes, instead of raps, the séance table would tilt up and down several times, and in more dramatic cases the table would levitate fully. And in the most dramatic of those cases, sitters would report that the table carried people up and around the room with them, and many reported that they were unable to move the levitated table back to the floor once it was aloft. More dramatically still, many mediums purported to materialize objects resembling the deceased—for example, a disembodied hand and wrist (perhaps with characteristic deformations), or an image of the deceased’s face, or a full-figure materialized human form. Although most spiritists

insisted throughout that these physical phenomena were manifestations of the deceased mediated by the living, many investigators entertained and then gradually accepted the view that the carefully controlled (and presumably non-fraudulent) phenomena were actually psychokinetic productions of the living.

Undoubtedly, many factors contributed to the decline of the Spiritualist movement and the apparent retreat of physical mediums to relatively inconspicuous enclaves or sinner groups. Not surprisingly, one of those is the richly documented history of mediumistic fraud perpetrated by soundrels only too willing to take advantage of grieving and gullible sitters. Nevertheless, and contrary to what many like to claim, it would be a mistake to think either that all physical mediums were frauds or that nobody managed to weed out the charlatans among them. First of all, investigators exposed many hundreds of fraudulent mediums during the late nineteenth and early twentieth centuries. Some of those investigators were self-styled skeptical debunkers—scientists or laypersons who made reputations for themselves by exposing mediumistic duplicity, and most of whom believed that spiritualistic phenomena simply couldn't be genuine. But others combined careful and critical research with a sympathetic or at least open-minded attitude toward the paranormal.

One of the reasons this period is so important is that some physical mediums clearly stood out from the crowd. No matter how carefully they were controlled, and no matter how alert, competent, and familiar with conjuring were their investigators, these mediums produced effects that couldn't plausibly be dismissed as fraudulent or attributed to malobservation. In fact, one of the strongest bodies of evidence comes from the 1908 Naples sittings with Eusapia Palladino. Eusapia's three investigators were England's most experienced debunkers of fraudulent mediums. They knew the tricks of the trade (indeed, two of them were skilled conjurers); they knew what Eusapia's sometimes suspicious methods (and occasionally outright but simplistic tricks) were; they knew how to control for them; and the phenomena occurred in decent electric light and often at a distance from the medium. The investigators traveled to Naples believing they would establish once and for all that Eusapia was nothing but a trickster, and they left Naples grudgingly convinced that the nearly 500 phenomena they documented over eleven sésances were not fraudulent.

Moreover, as I noted above, some of the phenomena reported during this 80-year period were mind-bogglingly dramatic. For instance, in the case of D. D. Home, accordions reportedly played either untouched or held at the end away from the keys; substantial, fleshy, and warm hands—ending at the wrist—reportedly moved around the room, carried objects,

shook hands with séance participants, and then dissolved in their grasp; and despite the efforts of many to restrain them, heavy tables moved around the room, sometimes with several people on top. And those were just a few of the startling phenomena associated with Home's mediumship. (For more on the physical phenomena from the heyday of Spiritualism, see the Commentary by Michael Nahm and the Commentary by Carlos Alvarado in this issue, both about W. J. Crawford's investigations.)

Now physical mediumship never really disappeared, although it certainly faded from public view. Indeed, even a cursory Internet search today will demonstrate that physical mediums still practice, that some of them at least charge hefty fees for their services, and that many of them have a rabid following of transparently credulous and uncritical supporters. And when one digs a little deeper, it becomes clear (a) that many of these mediums sedulously avoid producing their phenomena under any controls, (b) that those who claim to accept controls in fact allow only those that can easily be circumvented, and (c) that many of those who purport to apply the controls have little if any grasp of what's really required to rule out chicanery. For example, some mediums boast of allowing their wrists to be secured to the arms of their chair by means of straps, and their investigators proudly claim that they thereby prevented the medium from moving into the darkened séance room. One would never guess from reading these reports that it's actually quite easy for a medium to ensure that the straps are not tight, so that the medium's limbs can be freed and later (after the mischief is done) reinserted into the straps.

As far as I've been able to discover, the only contemporary physical medium currently allowing any serious, sustained, and competent physical control, including a strip search and continuous hands-on control *while the phenomena are occurring at a distance*, is Kai Mügge. The reason this is particularly noteworthy is that Kai, who is deeply immersed in and influenced by reports of the old spiritist séances, ostensibly produces phenomena not seen under decent conditions since the heyday of Spiritualism. This includes raps and other sounds occurring in all parts of the séance room, object movements at a distance from the medium, full table levitations occasionally rising to the ceiling and remaining there for some time, and the production of copious amounts of mobile ectoplasm from which hand and arm-like appendages emerge, and in which faces form before sitters' eyes. So Kai and the FEG present the first opportunity in many decades to investigate and document these puzzling phenomena with the technology now at our disposal.

One of my biggest surprises, when I began seriously to investigate the data of parapsychology, was that the majority of so-called authorities in

the field had very firm opinions about the worthlessness of the evidence for macro-PK generally and physical mediumship in particular, despite the fact—which was easily confirmed by posing only a few pertinent and elementary questions—that they really had no idea what the evidence was, and that their certitude was merely a prejudice based either on poorly considered a priori assumptions or else equally ignorant secondary literature. Few parapsychologists, I discovered, had actually read any of the primary material, and so of course they had no idea how shoddy much of the secondary literature was.¹

Under the circumstances, it wouldn't surprise me to learn that most *JSE* readers or SSE members are likewise ignorant of the data and relevant issues.² So I wouldn't be surprised if they approach the two FEG reports in this issue with some familiar negative predispositions—if indeed, they dare to approach the two reports at all. Of course, this is not the place for a comprehensive review of physical mediumship. Nevertheless, I'd like briefly to survey several crucial matters about the reliability of eyewitness testimony. This is a topic that I suspect will be foremost in many readers' minds as they consider the FEG reports in this issue by Michael Nahm and myself, and which are therefore worth reviewing before the process of reading the current articles gets under way.

Eyewitness Testimony

One of the common myths about physical mediumship is that it's nothing but deception taking place mostly in darkened séance rooms. We've already had a glimpse of why that's false, and the best cases easily demonstrate the emptiness of that charge. Another myth concerns the alleged unreliability of human testimony—in particular, that spectators are too liable to make mistakes, either in general or at least under the conditions prevailing during séances. So one question many ask about séance reports is: "Why should we trust what the witnesses tell us?" But suppose we reply, "Why not?" After all, we rely on observation and testimony all the time, often quite successfully. So even if we grant that eyewitness reports are *fallible*, it doesn't follow that they're unreliable to a very high degree, or simply too unreliable to be trusted in this context. But in that case, what reasonable and *specific* concerns might a skeptic raise about eyewitness accounts of physical mediumship?

Before answering that, it's important to note that observation reports are never absolutely (or categorically) acceptable. At best, they can only be *conditionally* acceptable. Granted, sometimes the conditions are clearly satisfied, and so some reports can be highly reliable. Nevertheless, several factors influence whether or not (or to what degree) we accept a particular

observation claim. Probably the most important are: (a) the capabilities, condition, interests, and integrity of the observer, (b) the nature of the object(s) allegedly observed, and (c) the means of observation and the conditions under which the observation occurred. When we evaluate reports of paranormal phenomena, we weight these factors differently in different cases. But in general, it matters: (a) whether the observers are trained, sober, honest, alert, calm, prone to exaggeration, subject to flights of imagination, blessed with good eyesight, and whether they have strong prior interests in observing carefully and accurately; (b) whether the objects are too small to see easily, whether they're easily mistaken for other things, or whether (like fairies, extraterrestrials, and unicorns) they're of a kind whose existence can't be taken for granted; and (c) whether the objects were observed at close range, with or without the aid of instruments, whether they were stationary or moving rapidly, whether the observation occurred under decent light, through a dirty window, amidst various distractions, etc.

Presumably, then, what's at issue here is not the integrity, in general, of observation and testimony. Rather, it's whether (or to what extent) the best cases satisfy sensible conditions for reliability. So the specific question before us is: Do we have good reasons for discounting or distrusting eyewitness reports in the strongest cases of physical mediumship? That is, do we have good reasons for thinking that the phenomena in these cases didn't occur as reported?

That's not to say it's unreasonable ever to question the reliability of human testimony in mediumistic settings. However, it takes only a little reflection and an acquaintance with the evidence to dispel those concerns for the best cases. Of course, the topic of eyewitness testimony is huge, interesting, and multi-faceted, and we clearly can't examine all its nooks and crannies here. But for present purposes, the following quick review of some major points will suffice.

Perhaps the most familiar skeptical gambit in this context is to claim that the reports in question are examples of biased testimony—that is, that witnesses of paranormal physical phenomena, mediumistic or otherwise, are predisposed to see either miraculous things generally or certain paranormal phenomena in particular. But in that case (so the argument goes), they're likely to be guilty either of motivated misperception or outright fabrication. Initially at least, this *Argument from Human Bias* might seem perfectly reasonable. After all, there's no doubt that some people misperceive or lie, and there's also no doubt that their predispositions might be one reason for these lapses. Nevertheless, on closer inspection this argument turns out to be remarkably flimsy, for several reasons.

First, even if witnesses were biased to experience paranormal

physical phenomena, that wouldn't explain why independent reports agree on unexpected and peculiar details, such as the raining of stones or excrement in the homes of poltergeist victims. Second, an argument from bias could be used to undermine virtually every scientific report requiring instrument readings and ordinary human observation. After all, it's not just parapsychologists and "plain folk" who have strong beliefs, desires, and predispositions about how the universe works. Mainstream scientists have at least as much at stake and at least as many reasons for perceptual biases as do witnesses of the paranormal. They might even have more, considering how success in the lab can make or break their careers, especially when their research is novel and potentially groundbreaking.

Third (and even more important), the *Argument from Human Bias* is double-edged. Obviously, biases cut two ways, against reports by the credulous *and* the incredulous. So if a bias in favor of psi phenomena might lead people to misperceive or to lie, so might biases against psi phenomena. And those negative biases are arguably at least as prevalent—and certainly sometimes as fanatical—as those in favor of the paranormal. In fact, the history of parapsychology chronicles some remarkable examples of dishonest testimony and other reprehensible behavior on the part of skeptics.³ These include subsequently discredited reports that certain séance phenomena failed to occur. So, we adopt an indefensible double standard if we distrust only eyewitness testimony in favor of the paranormal.

Fourth, it's obvious that many who investigate the paranormal are motivated primarily by curiosity and the need to know (whatever the outcome). In fact, in some of the best cases, witnesses of mediumistic phenomena have clearly been biased *against* the reported phenomena. As I noted earlier, one of the most compelling examples of this comes from the 1908 Naples sittings with Eusapia Palladino.

Fifth, although many observers may be *open to the possibility* of psychic phenomena, that's not the same as being biased in their favor. For example, one can be open to the possibility of a phenomenon (say, alien visitations) while thinking that its actual occurrence is highly improbable. In fact, one can be open to the possibility of a phenomenon and also biased *against* observing it. For instance, poltergeist victims often had the prior belief that although the phenomena were possible, such things would never happen to *them*.

Sixth, the possibility of motivated misperception increases as conditions of observation deteriorate. But in the best cases—obviously, the ones that matter—witnesses observed phenomena collectively, near at hand, in good light, with clear heads, and with ample opportunity to examine the phenomena while they occurred. It's irrelevant to point out, as critics often

do, that witnesses give inaccurate reports concerning small-scale, fleeting phenomena thoroughly under the control of the medium, and from séances conducted in near or total darkness.

But (you might wonder), we know from so-called “staged incident” experiments that people can be guilty of outright malobservation. In these studies, subjects are presented with an unexpected and carefully prearranged confrontation or dispute. Later, when questioned about the incident, it turns out they often failed to observe what happened, and sometimes they report things that never occurred. However, these results are irrelevant to the most impressive cases of physical mediumship. For one thing, the magnitude of error demonstrated in staged incidents (while undoubtedly important for determining guilt or innocence in a court of law) is much smaller than what’s required to explain away the best evidence from mediumship. But more important, whereas staged incidents *encourage* malobservation and misreporting, the best mediumistic cases were actually *conducive* to accurate eyewitness testimony. In those latter cases, observers were not taken by surprise; they often knew in advance what to look for (including what sort of deception to look for); lighting was good; and the phenomena often lingered long enough to permit sustained and repeated observation and careful hands-on inspection.

Similar considerations apply to skeptical concerns over the alleged unreliability of memory. Perhaps most important, much of the best testimony from mediumistic cases was written down at the time or soon thereafter. In fact, in the Palladino case observations were sometimes dictated on the spot to a nearby stenographer.

At this point, critics sometimes make last-ditch appeals to the possibility of collective hypnosis or mass hallucination. Significantly, however, the smartest and best-informed skeptics usually avoid this line altogether, and it’s easy to see why. First, regarding hypnosis: There simply *is* no evidence that the appropriate kind of mass hypnosis has ever occurred—that is, inducing people to issue the same or concordant observational reports in conditions widely recognized as being unfavorable to hypnosis, and despite the well-known and great variability in human hypnotic susceptibility. Also, considering the amount of good evidence, *from different mediums*, proponents of this view would have to explain the sheer multiplicity of apparently untrained but prodigiously gifted hypnotists, all of whom were mysteriously able to do what no one has ever explicitly demonstrated—that is, to transcend the variations in human hypnotic susceptibility and induce collective and concordant experiences in unselected subjects, many of whom were taking specific precautions against suggestion. In fact, if a medium could, through suggestion, get different people simultaneously to

experience and report the same phenomena, and also do this under conditions unfavorable to suggestion, arguably that ability would be as paranormal as what it's supposed to explain away. In fact, it looks suspiciously like telepathic influence. Moreover, the hypothesis of collective hypnosis is difficult to square with the permanent physical records of the reported phenomena—for example, mechanically recorded measurements, or broken heavy tables shattered from descending too rapidly from previously levitated positions.

The second hypothesis, of collective hallucination, is simply ridiculous. It can't even remotely account for the *continued* success under good conditions, and often for many years, of mediums like Home and Palladino. Since witnesses weren't engaged in something like mushroom rituals, there would have to be a lot of spontaneous hallucinating going on, over many decades, remarkably resulting in people having the same or similar nonveridical experiences. Besides, this hypothesis fails to account for the causal relevance of the medium's presence. If the medium had nothing to do with witnesses' allegedly false observational reports, why were the witnesses hallucinating in the first place? But if the medium was responsible, then (since mediums weren't dispensing hallucinogens) it looks like this hypothesis is really just the hypothesis of collective hypnosis, which we've seen is clearly inadequate to the facts.

As I mention in my paper in this issue, I don't yet consider the FEG phenomena, and in particular the conditions of observation, to meet the standard set by the best cases from the heyday of Spiritualism. And of course the recent evidence of at least occasional fraud has tarnished the case as a whole. Nevertheless, on some of the occasions described in this issue's reports, the controls were far from negligible—indeed the best that any physical medium has permitted in decades, and clearly superior to those in the usual cases cited by skeptics. Moreover (thanks in part to those controls), some FEG phenomena have not yet been discredited and remain very difficult to discount—especially the table levitations and some of the object movements occurring at a distance under intrusive bodily control of the medium. And I believe it's fair to say that Nahm agrees with me on this point. Where we disagree is on the issue of whether at least the strongest FEG phenomena are perhaps worth pursuing further. Nahm seems inclined to disagree. I'm not so sure. The FEG still provides the only opportunity for contemporary researchers to join their predecessors in the careful study of phenomena that are not merely puzzling, but (in light of the hints they provide about the scope and refinement of PK) potentially very important as well. And as I hope will become clear both from the foregoing considerations and the reports in this issue, the evidence gathered so far

can't be dismissed simply by the all too familiar and unacceptably glib and sweeping rejection of eyewitness testimony.

So, should we now abandon investigation of the FEG altogether (assuming that Kai continues to cooperate)? I encourage readers to form their own opinion.

STEPHEN BRAUDE

Notes

- ¹ For prime examples of both pseudo-scholarship and sleazy dialectic applied to the heyday of Spiritualism, see Brandon (1983) and Hall (1984). And for palate-cleansing, see the review of the former in Inglis (1983) and the review of the latter in Braude (1985).
- ² Useful starting points, for intrepid readers, would be Braude (1997) and Inglis (1977, 1984).
- ³ See Braude (1997:Chapter 1) and Inglis (1977).

References

- Brandon, R. (1983). *The Spiritualists*. New York: Alfred A. Knopf.
- Braude, S. E. (1985). "Review of Trevor H. Hall, *The Enigma of Daniel Home*." *Journal of the Society for Psychical Research*, 5, 40–46.
- Braude, S. E. (1997). *The Limits of Influence: Psychokinesis and the Philosophy of Science, Revised Edition*. Lanham, MD: University Press of America.
- Hall, T. H. (1984). *The Enigma of Daniel Home*. Buffalo: Prometheus.
- Inglis, B. (1977). *Natural and Supernatural*. London: Hodder & Stoughton.
- Inglis, B. (1983). "Review of R. Brandon, *The Spiritualists*." *Journal of the Society for Psychical Research*, 52, 209–212.
- Inglis, B. (1984). *Science and Parascience: A History of the Paranormal 1914–1939*. London: Hodder & Stoughton.

RESEARCH ARTICLE

The Development and Phenomena of a Circle for Physical Mediumship

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Abstract—The present paper describes the development and the phenomena of a circle for physical mediumship, based predominantly on my own observations. Over the course of four and a half years, I have participated in 21 sittings. Typical phenomena include unusual movements of a table, raps on the room walls and the ceiling, various luminous and psychokinetic phenomena, the generation of supposed ectoplasm, and apports. I will describe the controls applied during the sittings and my personal involvement in accompanying the development of the phenomena, and explain why I finally arrived at the conclusion that considerable parts of the phenomena were produced by fraudulent means.

Keywords: Physical mediumship— raps— psychokinesis—ectoplasm—apports—circle—fraud

Introduction

The phenomena described in the context of physical mediumship belong to the most puzzling occurrences that can be studied. According to the vast literature on physical mediumship, typical phenomena include the following:¹

- audible raps and knocks originating from a table, or from the walls and the ceiling of the séance room (Carrington 1909, Crawford 1919, Maxwell 1905, Owen & Sparrow 1976, Paul et al. 1963, Richards 1982, Schrenck-Notzing 1923:602–609, Schwab 1923)
- unusual movements and levitations of a table situated in the middle of the circle of sitters, but also unusual movements of various other objects and devices (Batcheldor 1966, 1979, 1984, Bottazzi 1907, Brookes-Smith 1973, 1975, Carrington 1909, Chengery Pap 1938, Crawford 1919, Courtier 1908, Edwards 1946, Gasparin 1857,

- Grunewald 1920, Hamilton 1942, Ochorowicz 1909, Osty & Osty 1931–1932, Reichenbach 1867, Richards 1982, Schrenck-Notzing 1920, 1924a, 1933, Tischner 1954, Zöllner 1922)
- various kinds of luminous phenomena (Chengery Pap 1938, Geley 1927, Gissurarson & Haraldsson 1989, Haraldsson 2012, Keen, Ellison, & Fontana 1999, McKenzie 1922, 1923)
 - materializations of a mostly white substance, usually named *ectoplasm*, *teleplasm*, or *metaplasm* (Blacher 1931, Crawford 1921, Edwards 1946, Geley 1927, Gerloff 1955, 1958, Hamilton 1942, McKenzie 1922, Schrenck-Notzing 1923, Schwab 1923, 1931)
 - materializations of shapes of human hands, sometimes full-fledged apparitions, often in combination with ectoplasm generation (Bottazzi 1907, Carrington 1909, Crookes 1874, Geley 1927, Gerloff 1955, 1958, 1960, Gissurarson & Haraldsson 1989, Haraldsson 2011, McKenzie 1923, Morselli 1908, Schrenck-Notzing 1923, 1924a, 1933)
 - apports and deports (the unexplained appearance and disappearance of physical objects other than ectoplasm; Blacher 1926, 1931–1932, 1933, Bozzano 1930, Button 1932, Chengery Pap 1938, Haraldsson 2013, Hasted 1981:165–187, Kindborg 1930, McKenzie 1929, Richards 1982, Schwab 1923, Simsa 1931, 1934, X 1904, Zöllner 1922)

In the present article, I describe the development and the phenomena of a circle for physical mediumship over a timespan of four and a half years, predominantly based on my own observations. The Circle is located in Hanau, Germany, and it is named the *Felix Experimental Group* (FEG). It was initiated in October 2005 by Kai Mügge (KM) who now serves as the group's medium. In recent years, the phenomena displayed by KM have received worldwide attention. He has become well known in the spiritualist scene in Europe, North America, and Australia, and is also frequently discussed in the parapsychological community. He also maintains a blog at <http://felixcircle.blogspot.de>. KM claims to have worked as a direct marketing project manager and as a sales trainer. He has also worked as a documentary film producer and has produced three documentary films about the heroin scene in Frankfurt, Germany (for their trailers, see www.babylon-tv.de). According to KM, he witnessed large-scale poltergeist phenomena in the house of his best friends at the age of 11. Subsequently, he became interested in physical mediumship. At the age of 15, he had allegedly founded his first sitter group, which was intermittently followed

by several others. Apparently, unusual phenomena such as inexplicable table movements occurred occasionally with all of these groups. Similarly, after the FEG had met for six months on Tuesdays, the first seemingly inexplicable table movements and apports began to take place. I became aware of the existence of the FEG in summer 2008. Soon after I had posted a few general comments about physical mediumship to KM, he invited me to join one of their sittings. On November 11, 2008, I paid my first visit to the FEG. Although the phenomena of this sitting provided no clear evidence of a supposed paranormal origin, they were intriguing and got me hooked. The development of the FEG continued to interest me. Since then, I have sat with the Circle, or KM, 20 more times. The last four sittings took place during a week of experimentation spent in Austria from May 10–17, 2013 (see Braude 2014 in this issue).

The next section of this article, **The Development of the FEG and Background Information about the Sittings**, describes the most important steps of development in the FEG. It provides general background information about the setting of the sittings and about the controls applied. The third section, **The Sittings and Their Phenomena**, contains more detailed descriptions of specific sittings and of phenomena that I consider of greatest significance, largely excluding the last four sittings held in Austria which are described in detail by Braude (2014 in this issue). These descriptions of phenomena are based on notes I took later at night after each of the sittings I attended, and which I elaborated on in the days thereafter. The fourth section, **The Question of Genuineness of the Phenomena**, contains a brief description of my involvement in documenting the development of the phenomena. I describe by which occurrences and findings I finally arrived at the conclusion that crucial elements of the phenomena displays were produced in a fraudulent manner. Yet, the possibility of mixed mediumship remains feasible. Hence, I also describe in which ways the séance performance and the controls should be improved in future sittings.

The Development of the FEG and Background Information about the Sittings

The Composition of the FEG

The usual sittings in Hanau take place in the house of KM's parents in a cellar room, a former air-raid shelter (for a floor plan see Figure 1). At present, the Circle consists of 11 regular members including KM, although only seven members aim at attending each séance. Even this is not always feasible. For example, in addition to KM, only four Circle members were present on three of my visits. Usually, guest sitters attend the sittings. On the three occasions

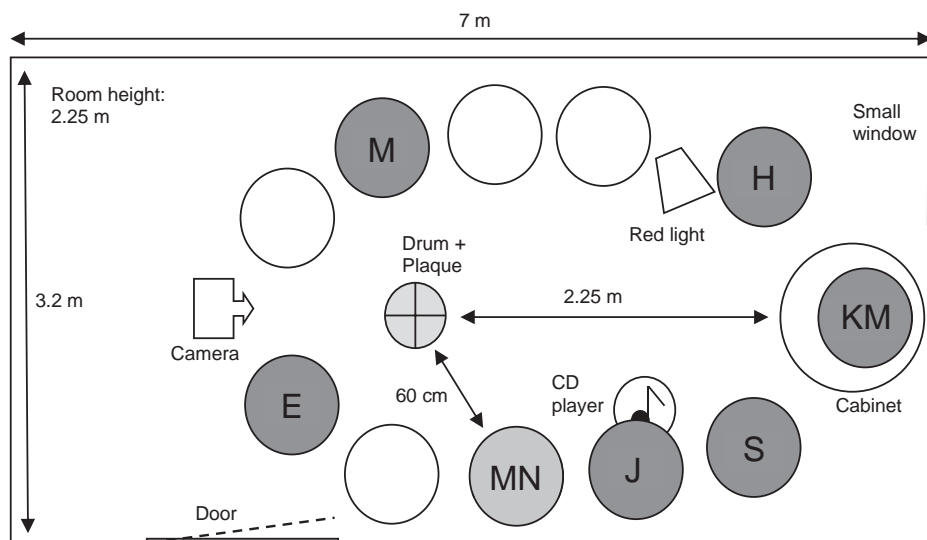


Figure 1. Floor plan and typical scenario of a cabinet sitting in the usual séance room of the Felix Experimental Group (FEG) in Hanau, Germany, held December 16, 2010. Circles in dark grey represent members of the FEG, the letters indicate the first letter of their first name; *KM* symbolizes the medium inside the cabinet. White circles represent guest sitters. The lighter grey circle with *MN* indicates the author's location at this séance. At sittings held during that time, the order and number of the sitters was largely free and varied considerably from séance to séance. Many of the psychokinetic phenomena took place around or on the wooden hand drum on the floor.

just mentioned, there were three, six, and six guests, including myself. The present “core group” of the Circle includes Julia (a secretary), the wife of *KM*, his mother (a retired teacher), his sister-in-law (an event manager), Jochen Soederling (pseudonym, a cardiologist employed at a hospital and research institute), an environment technician, and a tax consultant. There is comparably little fluctuation in the composition of members of the Circle. From the 11 members who constituted the core group of the Circle during its first year, seven still belong to it. Two of them moved away from Hanau, one stopped participating because of health problems, and one left because she felt uncomfortable during the sittings when *KM* entered trance states.

Since I started visiting the Circle I have been in regular contact with *KM* and Jochen. *KM* is a peculiar personality. Those who are sympathetic to him, however, can easily develop a cordial relationship with him. He has a good sense of humor, and engages others readily in interesting and entertaining conversations. I came to know all Circle members as very open,

friendly, and also quite humorous persons. The sittings and their aftermath are usually full of jokes and laughter. Nevertheless, Jochen in particular has remained a critical observer who pays much attention to minute details of the occurring phenomena, in order to find out which characteristics seem difficult or unable to fake, and which might be imitated by fakery under the prevailing circumstances. In the times between my visits to the Circle, I corresponded frequently with him and KM about particularly interesting developments and observations, at irregular intervals.

From 2010 on, KM has held sittings in different countries and cities outside Hanau. At first, he only went on a few trips to Koblenz, Germany, Switzerland, and Denmark, but in the recent past his travelling activities have strongly increased and include the US and Australia. According to KM, he and his wife don't gain noteworthy profit from their travelling and holding séances in different countries. Allegedly, they need to rely on additional sources of income to make their living. Usually, KM travels to these sittings with only one of the Circle members. In former times, he was accompanied by Jochen Soederling or by a temporary Circle member (H) who left the Circle again in 2011 after he concluded that KM must be a cheat. KM's wife Julia joined the Circle just before H left, and she now travels with him. On a few occasions, KM even travelled alone to hold public sittings in Basel, Switzerland. On all these occasions, the typical phenomena reported from the cellar room in Hanau occurred in practically identical ways. Hence, it can be inferred that the phenomena can be produced by KM alone. Personally, I have attended three sittings outside of Hanau before our meeting in Austria. They took place in Basel at the *Basler Psi-Verein [Basel Psi-Association]*, see <http://www.bpv.ch>. On the first occasion, KM was accompanied by H, on the other two occasions by Julia. As I will describe later, I was allowed control of the room, the cabinet, and KM during my last sitting in Basel (for a floor plan of this sitting, see Figure 2).²

The Location of the FEG in Hanau

The cellar room in Hanau has one door and one small window (about 0.5×0.7 m) below the ceiling (Figure 1). The dimensions of the room are 7×5 m; the room height is 2.25 m. On one side of the room, an oblong space is separated from the sitting area with a curtain. This curtain forms one "wall" of the sitting area, which is thus only 3.2 m wide (Figure 1). The separate space contains a table with computing equipment, a chair, and a rack with a few objects. Anybody who is willing to search the séance room before a sitting is allowed to search the area behind this curtain as well. I have done so repeatedly, and have never found a suspicious device that might have been used for the production of the phenomena (such as sticks

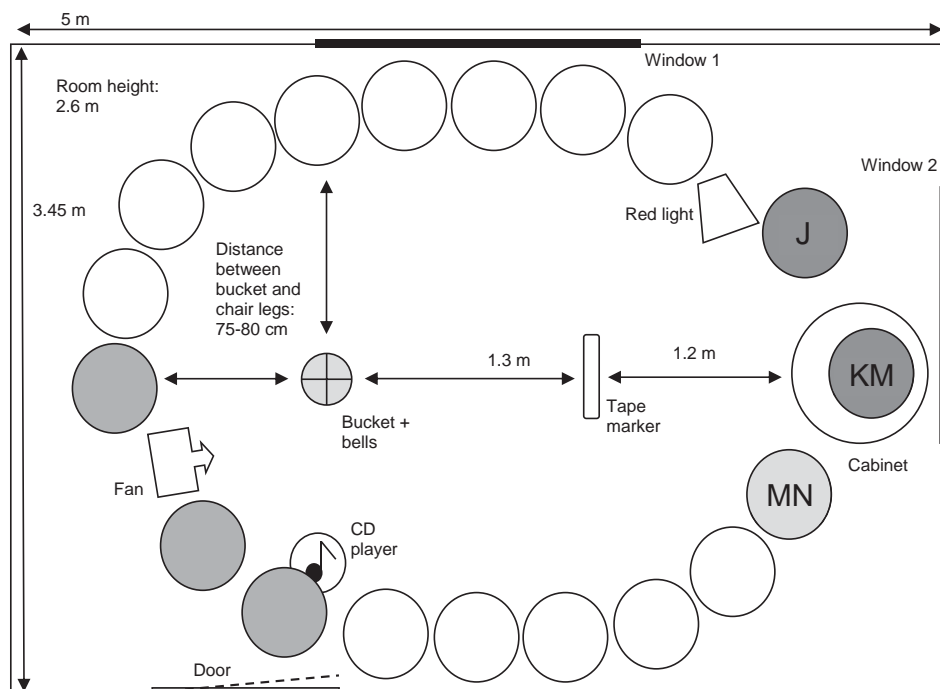


Figure 2. Floor plan and typical scenario of a public sitting held by KM in Basel, Switzerland, on October 17, 2012. The two circles in darkest grey with the letters KM and J represent the places of the medium and his wife Julia. The three somewhat lighter circles in the vicinity of the door symbolize where the organizers of the séance sat. They operated the CD player and the fan, and took care of the locked door. White circles represent guest sitters. The lighter grey circle with MN indicates the author's location at this séance. I was allowed to control both KM and Julia during this sitting (see text).

or other oblong objects, pieces of cloth, threads, a shielded inaccessible area, etc.). The walls of the room are made of concrete that is covered with wood paneling. The shutter of the small window is covered with the same kind of paneling. It is usually closed and the gaps are sealed with black tape to prevent light from entering the room. It is not possible to open it without considerable preceding activity and noise. Occasional air exchange is solely mediated via the door, and sitters operate a fan to cool the medium's body during sittings. Other objects permanently present in the séance room include the chairs for the sitters, the séance table, a heater, an old broken wall clock, lamp holders, the red light lamp on a small table, a CD player, and an audio recording device.

The Procedure of Typical Table Sittings

During a typical table sitting, between 5 and 12 participants sit around an ordinary round plastic garden table with four legs and a diameter of 1.2 m. All sitters put their hands loosely onto the table surface. Familiar music from the 1960s is played, and the sitters are requested to sing along with it freely and loudly. In addition, the sitters chat and joke a lot—the funnier and easier the atmosphere, the better are the results of the sitting. A sincere, quiet, and meditative mood with a focus on table movements seems counterproductive (Batcheldor 1966, 1984, Owen & Sparrow 1976). Usually, the table starts to move and tilt almost immediately after the usual opening prayer. Phases of activity last for several minutes, and they often alternate with phases of relative calmness. Throughout the early years of the FEG, sittings were held on a regular basis each Tuesday evening. Since KM has started travelling frequently, they have become more irregular.

The table sittings usually took place in darkness. Regularly reported phenomena included full table levitations and ostensible apports falling onto the table or the floor (e.g., stones, metal objects, petals of roses, a large load of water, and balls of wax with enclosed written messages). Also, sitters have observed brief appearances of supposedly inexplicable lights in the séance room, and sometimes direct writings on sheets of paper placed in the vestibule outside the séance room were found after the sittings. The apports or lights would simply appear during the course of the table sitting without special preparation. Typical table sittings last 1.5 hr, sometimes longer.

Allegedly, KM has been practicing trance induction techniques privately since 1983. At the end of 2008, he started to employ a trance technique that involves holotropic breathing during the regular table sittings. When KM first entered states of supposed trance at the table in late 2008, a personality named “Rafael Gutmann,” or, for short, “Rafi,” came forward. Rafi spoke with a heavy Bavarian dialect, and claimed to have lived in Munich a few decades ago. After some time, he announced that a much stronger deceased entity would soon resume control over the trance sittings and would replace him. Indeed, a new trance personality took over the trance speech in spring of 2009. He claimed to be the deceased pioneer of academic parapsychology in postwar Germany and founder of the Institute of Frontier Areas of Psychology and Mental Health (IGPP) in Freiburg, Germany, Professor Hans Bender (1907–1991; HB in the following).³

The Establishment of Cabinet Sitzings

Following suggestions of the trance personality HB to adopt a classical approach to physical mediumship, the FEG mounted a curtain cabinet inside the séance room (Figure 1).⁴ This cabinet consisted of an orange-brown curtain draped around a hoop 1.1 m in diameter; the hoop is suspended from the ceiling. The curtain was dyed black after several months. In addition to the cabinet, several objects have been added to the regular equipment of the séance room since 2009, especially the target objects to be moved via ostensible psychokinesis (PK). These include a “trumpet” (an oblong cone made of cardboard with a phosphorescent strap around its thicker end), a phosphorescent plaque (13 × 13 cm) as well as a drum or an empty bucket on which the plaque is placed, a tambourine, two maracas, and a handkerchief with numerous bits of phosphorescent strap attached to both sides. These objects can be placed on the drum or bucket in the “action zone” at a distance of about 2.25 m from the chair inside the cabinet. There is also an empty bucket in or close to the cabinet that can be used in case KM needs to vomit, and also a towel and a bottle of iced tea to soothe KM’s sweating and thirst. The cabinet and all other objects inside the room can be examined before sittings, and I have repeatedly done so. Items that give rise to suspicion are six long black strips of tape attached to the inside of the cabinet curtain. Allegedly, they cover diaphanous strips of the curtain cloth to make it more lightproof. Moreover, a pencil is fixed with black adhesive tape to the floor in front of the cabinet. The tape and pencil are alleged to function as a marker that the medium is not supposed to transgress when he moves out of the cabinet during cabinet sittings. Apart from this, I have not detected unusual details in the setup and the objects, such as needles in the cabinet curtains, holes in objects to enable them being lifted up with a small hook, signs of threads, magnets, or miniature mechanics, or suspicious tapes attached to the target objects.

The FEG held their first cabinet sitting on October 20, 2009. The time during which KM retreated into the cabinet lasted only 30 min. Some psychokinetic phenomena were reported, namely ringing of a wind chime suspended from the ceiling, lights flying across the room, movements of the trumpet, and touches on the sitter’s bodies. I was invited to the second cabinet sitting on October 27, 2009, and was able to confirm these reports. From then on, the regular Tuesday sittings of the FEG were divided between regular table sittings without trance induction and cabinet sittings without the use of the table. The latter were held 1–2 times a month. At the beginning and during much of the time of the cabinet sittings, KM sits on an ordinary chair inside the cabinet and is completely veiled by the curtains.

The Procedure of Typical Cabinet Sitzings

After my first visit to a cabinet sitting of the FEG, I continued to follow their development in irregular intervals. Before each sitting, all sitters gather in the living room of the house on the second floor. In case there are guest sitters, KM provides information and instructions about the sitting, and all kinds of questions can be discussed. Then, he retreats to a private room to change clothes and to induce a pre-trance state. Meanwhile, the sitters enter the séance room with emptied pockets and take their seats in the room lighted by a red light. The order of seating is largely free. Only the sitters of the two chairs next to the cabinet are determined beforehand. However, the other sitters are asked to sit in a U in front of the cabinet so that female and male sitters are more or less equally distributed, if possible in an alternating sequence. Recently, Julia sits on the right side of the cabinet (seen from KM's perspective), and another person in KM's trust sits to the left. These two sitters are responsible for opening and closing the cabinet curtains when requested by HB. Julia additionally operates the red lamp on a small table. One of the sitters at the back is asked to operate the fan, another person the CD player. Finally, KM enters the room and sits down in the open cabinet.

KM opens the sitting with a short prayer. Then, soft music is played, and KM (from within the closed cabinet) begins the holotropic breathing technique to induce the trance state. Typically, the trance personality HB starts to speak after several minutes with a faint and coarse voice which slowly becomes stronger and more intelligible. After the initial greetings, HB requests a period of several minutes of loud singing to establish the "force field." For this purpose, the music is changed to more upbeat songs from the 1960s. At the initial stage of the trance induction via holotropic breathing, loud responsive raps can sometimes be heard on the ceiling and the walls of the séance room. Similarly, lights of whitish and greenish color can be seen moving quickly in or around the cabinet, either at the stage of trance induction or during the first signs of HB's appearance.

However, the main phenomena of an FEG sitting commence only after the force field is established by HB and the "Chemists." The Chemists are a group of five ostensibly deceased individuals, who, according to HB, produce the phenomena while HB uses KM's body to mediate the communication between "the beyond" and the physical world. Each time HB speaks, the music is turned down to understand him better. The phenomena are presented in a typical sequence. When the trance state is sufficiently established and the raps have ceased, HB announces what will be shown next, and Julia prepares the requested devices if necessary. Then the music is turned loud again, and all sitters are requested to sing freely

and loudly along with it. Sooner or later, phenomena appear, and HB begins to comment on them. While HB asks if the phenomena are sufficiently visible, or gives further instructions, the music is turned down. When he has stopped talking or finished his instructions, it is turned louder again. Sooner or later, the phenomena cease, either after notice from HB or by themselves. Thereafter, HB announces the next phenomenon, and asks the sitters to sing, etc. Sometimes, HB agrees that the pre-installed camera can be used to take photographs during the séances, especially of the ectoplasm.

A typical sequence of the main phenomena is listed below. In the third main section of this article, **The Sittings and Their Phenomena**, examples of each category are described in more detail.

- (1) Raps
- (2) Manipulations of the drum, hand bells, and maracas
- (3) Touches
- (4) Light phenomena
- (5) Handkerchief flight
- (6) Plaque phenomena
- (7) Manipulation of balls
- (8) Trumpet flight
- (9) Ectoplasm display
- (10) Apports

Not all of these phenomena are displayed at each sitting. On several occasions, HB has even asked the sitters which of the phenomena (5–8) they would like to see most. The request for choosing among the phenomena emerged when the duration of the sittings extended to up to 4 hr due to the increased variety of phenomena—an exhausting procedure for all involved. These days, typical cabinet sittings last no longer than 2.5–3.25 hr.

When the sitting comes to a close, HB bids farewell and announces that he will soon awaken KM from trance. After KM has awakened, all sitters except the two who sat at the left and right sides of the cabinet are requested to leave the séance room. The sitters gather in the living room again, discuss the events of the sitting, eat, and drink. Meanwhile, KM typically rests in a confused state with the two helpers in the cellar room. Generally, he needs several minutes to come fully to himself. He claims to feel uncomfortable and does not like being watched or listened to in this state. Also, he coughs, gargles, spits into the bucket, and utters vomiting-like sounds, and the FEG doesn't like the guests to experience KM in that state. After about 15 min, KM and his helpers join the others in the living room.

Controls Applied During the Sittings

The degree of controls used to prevent the fraudulent production of the phenomena varies greatly. Often, especially at the ordinary private (table) sittings in Hanau, explicit controls are entirely absent. At sittings of peculiar significance, however, controls can be applied if explicitly agreed upon beforehand. These controls are only performed for cabinet sittings and include a complete search of the séance room before the sitting in bright white light. I have usually searched the room without KM or other sitters present, and took all the time I needed to check everything that might cause suspicion. When sitters enter the séance room, they empty their pockets and are patted down by assigned individuals. Also, KM is patted down, and he always wears his pocket-less séance clothes. When psychokinetic phenomena take place in darkness, all sitters are asked to join their hands in a chain, and HB as well as other sitters repeatedly ask for confirmation that all hands are joined. When the two sitters next to the cabinet don't use their hands for handling the cabinet curtains or the red lamp, they put both hands onto the hands of their neighbor. One idea behind forming this chain is that all hands of the sitters should be controlled mutually so that the Circle members are prevented from producing fraudulent phenomena. Although one can never be sure that all hands are indeed held in chain, this procedure diminishes the opportunities for cheating. As described, the order of the sitters is largely free, and sometimes there are more guest sitters than the regular Circle members who sit among them. Should a sitter simulate large-scale PK effects with the help of one hand it would take at least one or more sitters who had secretly agreed to breaking the chain. In any case, it is important to remember that KM has produced the typical phenomena of the FEG group alone, or with only one other Circle member sitting next to the cabinet.

After the sitting, when KM has joined the rest of the sitters with his two helpers in the living room, the séance room can be searched again if desired.

When more rigorous controls are desired and agreed upon, KM is strip-searched in a private room before he enters the séance room. During the strip search, he wears only his underpants, and he presses them all over from the outside to show that no solid objects are hidden within. Sometimes, the controller has even looked into them. His body, hair, mouth, and ears are thoroughly checked by the controller, who inspects clothes and shoes. Then, the controller carefully watches KM dress again, and follows KM closely, who walks with raised hands on his way to the séance room and into the cabinet. Stephen Braude has performed the strip search a few times (see Braude 2014 in this issue). I have not yet done so. Most often, he

was strip-searched by the organizers of the sittings in Basel (about a dozen times)—but it is understandable if readers prefer to suspend judgment about the adequacy of that control.

In 2010, the entranced KM began to move out and in front of the cabinet with his chair before some of the psychokinetic phenomena took place. For example, at the sitting on December 16, 2010, he moved out of the cabinet before the plaque phenomena began, and retreated back into the cabinet when they had ceased. The reason for moving out of the cabinet is that KM's limbs can be controlled by the sitters next to him while the phenomena take place. In fact, the so-called "four limb control" ("4LC" in the following) was introduced in summer 2010, and was soon established on a regular basis to control KM during the phenomena (i.e. 2–8 in the list above). During this control, the two sitters next to the cabinet hold the arm and the leg of KM on their side. In this position, the medium's legs are spread sideways, so that the knees are separated by a distance of about 0.5 m.⁵ I was allowed to perform control of KM's left limbs during phases of all psychokinetic phenomena at two séances, one in Hanau on July 6, 2012, and one in Basel on October 17, 2012. In both cases I sat opposite Julia at the left side of the cabinet. Because I recorded the entire sitting in Basel with a private audio recorder, I was able reconstruct how long the controls were in place (see the section **The Sittings and Their Phenomena**). In general, I conducted my part of the 4LC in the following manner:

Each time KM moved out of the cabinet toward the center of the room with his chair, he was sitting more or less directly in front of me. To control him, I left my chair and moved right next to him, thus breaking the chain with my left neighbor. I knelt on my right knee, but kept my lower left leg standing in an upright position, bent at its knee. The sitter to the left of me touched my left shoulder or my back with her right hand to remain in bodily contact with me.

For controlling KM's body, I put my left foot in contact with his left foot—at its side, in front of it, or even on top of it. I felt his foot very well because I wear only socks at sittings. I put my left hand onto KM's left thigh, and took his left hand in my right hand. On these occasions, Julia usually controls KM's right side of the body in an analogous way, and she comments loudly if she feels any movement from KM or not, for all sitters to hear.

However, I was often asked to control Julia's hands as well when the phenomena were in full action. Then, I leaned over KM's left thigh across to Julia and KM's right side. In this position, I was in bodily touch with KM and Julia at the following locations:

- My left foot touched KM's left foot.
- My hip and belly region touched his left thigh including his left lower arm which rested on his left thigh. Basically, I buried his left lower arm on his left thigh under my trunk.
- My right upper arm and shoulder touched KM's left upper arm and shoulder.
- My right lower arm, stretching across to Julia, touched KM's belly.
- My right hand clasped KM's right hand including Julia's left hand which rested on top of it. Both hands rested on KM's right thigh which I could also feel with the tips of my fingers.
- My left hand controlled Julia's right hand, and again, KM's right thigh/knee, on which Julia's right hand rested.

When I reached across to Julia and KM's other side to take both of Julia's hands, I made sure that I could distinctly touch Julia's two hands, KM's right hand, and KM's right thigh. This was readily possible, since I had often more than half a minute to control Julia and KM in this way (see the detailed description of the phenomena in the section **The Sittings and Their Phenomena**). In addition, Julia wiggled the fingers of her comparably small hands so that I could easily find and distinguish them from KM's large right hand below hers.

Thus, during a properly performed "four-limb-plus-Julia" control ("4L+J control" in the following), I was in touch with practically all parts of KM's body except his back and head. In addition, the music is usually turned down during these controls because HB gives instructions and asks the sitters and the controllers repeatedly to describe what they perceive and if everyone is sitting in a chain. This talking by HB also serves the purpose to exclude the possibility that the ongoing phenomena are produced with the help of KM's mouth. During some of these controls, I have asked the whole group of sitters if they were all sitting in a chain with joined hands, and I have received unanimously affirmative feedback.

When the 4LC was first established in 2010 and early 2011, the movements of the objects in the séance room became immediately slower and smaller as soon as KM's body was touched by the sitters next to him. The objects also lowered their flight in the direction of the floor, and the light phenomena grew dimmer. As soon as KM would be released from control, they would pick up speed and brightness again. Moreover, KM would groan and sigh a lot during the times of control, as if he would suffer an immense drain of energy, or even pain. Since then, however, the phenomena have stabilized their movements during the times of control, and KM doesn't groan heavily anymore.

During the times I controlled KM at the sitting on July 6, 2012, the muscles in his limbs, most notably in his left leg, became tense, when the phenomena in the room were strong, or when a sudden movement occurred. This interesting correspondence between the tensing of the muscles of a medium during the occurrence of ostensible psychokinetic phenomena has been reported from previous mediums such as Kathleen Goligher (Crawford 1919, 1921) and Eusapia Palladino (e.g., Bottazzi 1907, Giuditta 2010). In another sitting on October 17, 2012, however, I could not detect a correspondence between the object movements and KM's bodily tension. Most of the time, he seemed completely relaxed.

One last aspect of the controls applied should be added here. On September 22, 2013, I participated in a private "séance" in Basel without members of the FEG. The Swiss stage magician Arthur Roscha (see <http://www.showtherapy.ch>) demonstrated to us how typical phenomena of physical mediumship can be imitated, and he explained some of the tricks afterward. Regarding the controls applied at this "fake séance," there were several differences compared with the FEG sittings. The most important differences were:

- 1) The magician didn't allow himself to be controlled while the phenomena took place. Instead, he permitted control only in the breaks in between. Nor did he speak aloud during phenomena. Hence, it was impossible to know whether he remained inside the cabinet or not during the phenomena.

- 2) The magician had instructed me and another sitter to tie him to his chair with cable binders. This type of control is common with other contemporary physical mediums who give public demonstration séances, but who do not allow personal controls during the phenomena themselves. Yet, KM never uses this type of control. He considers it useless by comparison to the personal body controls applied during the phenomena.

- 3) The magician had a suitcase next to the cabinet, which we were not allowed to search and control before the sittings. By contrast, KM allows and encourages controllers to search all objects present in the room before the sittings.

The explanation for the phenomena observed during the "fake séance" was simple. The magician could easily slip out of his bonds with certain tricks. Then, he walked freely around the room, and picked devices from his suitcase to produce the phenomena. When he had finished with a given phenomenon, he secretly returned to his chair and slipped back into the cable binders, then asking to be controlled. Obviously, the procedure applied by the magician would not be feasible under the control conditions prevailing at controlled FEG sittings. The magician himself visited two séances with

KM. He admitted that he had no idea about how the phenomena could have been produced without the help of others. Two other persons who claim to have experience with conjuring tricks have visited the séances of KM, and they have advanced analogous opinions. I have not talked with them and cannot tell how well these persons can reliably judge the techniques of fraud employed in physical mediumship. Nevertheless, it seems that KM's performance of psychokinetic phenomena differs from older and current techniques of stage magicians and earlier fraudulent mediums (e.g., Anonymous 1882, Abbott 1916, Carrington 1920, Keene 1976, Moore-Davis 1996). It also seems to differ from séances performed by other contemporary physical mediums. As mentioned, they usually follow the control procedures used by a stage magician. I visited séances with two of them, and they didn't impress me much.

The Sittings and Their Phenomena

In this section of the article, I describe some of the typical phenomena that I have observed with the FEG, or with KM, respectively. Unless stated otherwise, the phenomena took place in complete darkness.

Raps

The first raps were heard during the second cabinet sitting of the FEG on October, 27, 2009, to which I was invited. They originated from the vicinity of the wooden ceiling, and varied greatly with regard to their sound quality. Mostly, they consisted of knocks, but they would also resemble rapid scuttling with fingertips, or little animal feet moving about. Sometimes, we heard clicks and snaps. In general, the sounds appeared erratic, moving quickly across the ceiling, with pronounced knocks in between. In later sittings, I noticed sounds of wiping, scraping, scurrying, clattering, clapping, and drum rolls. Sometimes, the raps followed the beat of the music, and they followed verbal commands. However, this variety of sound production declined during the sittings in 2010. Usually, only knocks and drum rolls are displayed. Throughout the months, their strength increased considerably. At times, the raps are so loud that they make it difficult to follow KM's trance speech. Moreover, they started to occur regularly during the stage of trance induction, when KM performs his breathing technique inside the cabinet. The raps are now not restricted to the ceiling, but occur in the walls of the room, and, rarely, on the floor. For example, at a sitting on December 16, 2011, very powerful blows were applied to the wall behind and between the head of my right neighbor and my own head. We could even hear the paneling on the wall rattle due to the effect of the applied force. I estimate

the distance of the location of the raps from my head was about 30 cm. On March 20, 2012, I was sitting in front of the curtain that separates the séance room from the computing areas of KM. As soon as strong raps occurred, I leaned the back of my head against it to be in touch with it. Then, I asked the raps to move to the curtain, speaking aloud. Immediately, I felt that the curtain was manipulated and apparently hit by something right above my head for about 10 sec. Not long afterward, I asked a second time for raps on the curtain, and again the curtain was hit and moved immediately. The next moment, loud raps were heard from the opposite side of the room.

The shuffling and wiping noises, but also the sounds of the raps themselves, seem to contain the full spectrum of typical sound frequencies, i.e. the high frequencies are not dimmed as one would expect if the raps were produced from outside the room (e.g., in an adjacent chamber or from above). That the raps are applied to the walls by a presumably physical structure from inside the room is further corroborated by the fact that they hit the curtain behind me, and that one can hear the paneling in front of the concrete wall rattle when particularly strong raps are produced.

Raps occur not only in the Hanau cellar, but at other locations as well. I have heard strong raps at my sittings with KM in Basel, forcefully striking the ceiling at 2.6 m height when KM sat in his chair, breathing loudly during the stage of trance induction.

It seems there is a gradual transition from these rap phenomena to the phenomena described in the following section, **Manipulations of the Drum, Hand Bells, and Maracas**. During the rap display of the sitting on the December 16, 2010, numerous raps were also applied to the drum on the floor, on which the bells and maracas were placed in later sittings. On this occasion, the raps on the drum appeared at the Circle for the first time.

Manipulations of the Drum, Hand Bells, and Maracas

During the following months, raps on the drum in the *action zone* occurred regularly when the raps moved quickly around from one side of the room to the other. Sometimes, these raps were hitting the drum rhythmically. On December 16, 2011, a tambourine was placed on the floor in front of the drum. At the beginning of the séance, the tambourine was hit frequently, and then moved toward the shoes of a guest sitter. Here, it tapped on one of his shoes a number of times with notable force. For a short time, 4LC was installed by Julia and another Circle member (who also controlled Julia at times), and HB was continuously speaking from inside the cabinet. Both controllers stated that KM's body was completely still. Nevertheless, during the time that 4LC was exerted, the tambourine was continuously manipulated. Sometimes, I was able to hear something moving across the

floor in the vicinity of the tambourine, resembling the sound of a stiff cloth or a reptile moving on the linoleum floor. On March 20, 2012, the drum was hit several times and the tambourine phenomenon was repeated. Both controllers who performed 4LC stated again that KM was not moving, and I heard something sneaking across the floor again. A few days before the sitting on the July 6, 2012, I asked KM if I would be allowed to perform the 4L+J control myself. KM readily agreed. The typical drum and tambourine phenomena occurred early in the sitting. When I controlled KM in the way described above, he didn't move his left limbs at all. However, he tensed the muscles of his leg when the phenomena in the room were strong, and he was groaning. In addition, he was of course talking. The situation didn't change when I reached across to Julia to hold her two hands and control KM's right side as well. Both KM and Julia didn't move, but the manipulations of the tambourine continued without interruption. On October 17, 2012, I was allowed to perform the 4L+J control again. This sitting took place in Basel, and KM was only accompanied by Julia. I recorded the entire sitting with an audio recorder. The hand bells and the maracas were placed into the tambourine, which had been placed upside down on a bucket in the *action zone*. Audible manipulations of the bells and maracas were noticed early in the sitting. They followed the rhythm of the music. According to my audio recording, I had KM's left limbs under control for 4:20 min, and I controlled KM plus Julia for another 55 sec. During these controls, the phenomena continued unimpaired.

In Austria, we had hoped to witness comparable psychokinetic phenomena, and, if possible, to film them. However, they were skipped at the cabinet sitting by HB to focus on the production of ectoplasm. Yet, we all heard one distinct hit on the hand bell during our first table sitting; it can clearly be heard on the audio recording. The hand bell had been placed onto the bucket along with other items about 1.5 m away from KM's back (for the floor plan see Braude 2014 in this issue), and he had constantly been under bodily control at the table, while talking and singing.

Touches

When the FEG cabinet sittings got under way, the sitters—placed in a U-shape configuration in front of the cabinet—began reporting seemingly inexplicable touches on different parts of their bodies. I experienced touches for the first time on February 2, 2010. Most of them were very gentle and fleeting, but on one occasion something soft jumped and moved across both my thighs and crawled up my abdomen, up to my navel. The movements lasted for about 7 sec, felt quite lively, and I had the impression as if a very light hamster with unusually soft feet was running around on my

body. From that sitting on, I felt touches regularly at cabinet sittings. They gradually became more intense and frequent, and the structures touching my body felt more and more solid, comparable to plastic or wood. Particularly fascinating touches included finger-like touches moving around on my forehead, and then gently twitching and pulling my hairs at my hairline for about 5–7 sec. Later, something that felt like a solid finger scurried around the top of my head for about 10 sec, and then it distinctly pulled on the hairs on my head. During these touches, all sitters had allegedly formed a chain with their hands. I held the hands of both my neighbors. At the same time, HB was talking from out of the cabinet almost constantly; I sat about 2 m distance from the medium.

At a sitting on April 21, 2011, I was touched about 20 times. On one occasion, something approached the toes of my right foot and fumbled with them (I always take my shoes off during sittings). The structure moved slowly up my naked right shin (the trouser legs being rolled up), touched the back of my right hand which was resting on my right knee, moved gently up my bare forearm, then the upper arm up to my right shoulder, and then left my body. This event lasted for about 12 sec. Again, I sat about 2 m away from the talking and breathing medium.

The material causing the touches always seems to be dry and at room temperature. Most often, it feels like a stiff cloth, leather, or reptile skin, but occasionally it is quite hard and solid. Sometimes, it performs vivid and hectic hamster-like movements on one's body. On some sittings I have attended, sitters at different locations in the room have reported being touched at the same time, and at other occasions, some sitters claimed they were touched from behind. Often, distinct touches occur quite early in the séance—while KM induces his trance via rapid breathing.

Light Phenomena

I have seen several different light phenomena in sittings with the FEG. Some occur in the early stages of cabinet sittings, others even occur during the regular table sittings. However, I will only present descriptions of two kinds of lights occurring during advanced stages of cabinet sittings. First, there are greenish phosphorescent lights which have appeared regularly since Spring 2010. Second, a bright light, white in the center and red toward the periphery, is sometimes displayed in the part of the séance in which ectoplasm is shown.

The first time I saw the *greenish phosphorescent light* was on May 20, 2010, in Hanau. Initially, we saw a dim luminous blotch on the ceiling in the middle of the room. From there, a phosphorescent light of about 1 cm diameter lowered and moved around the room for several minutes. Its quality

was similar to the light produced by fireflies. It was only visible from one side at a time. When it was visible for the sitters on the opposite side of the room, it was not visible from my side, and vice versa. It flew all across the space between the sitters, sometimes almost touching the floor, sometimes the ceiling. It came very close to some of the sitter's faces; two sitters have stated it had touched them. In later sittings, the light became brighter, and moved much faster around the room, e.g., performing horizontal circular movements with a diameter of 1.2 m with astonishing speed. Sometimes, the phosphorescent lights seem to move above and behind the cabinet. This small light must be enveloped by something larger, at least sometimes, because it can cause unusually strong air currents when it flies past above one's skin. On three occasions, I was even touched by something that seemed to surround the light when it moved above and close to my legs at a distance of about 15 cm. The touches felt dry and resembled the touch of a stiff handkerchief. On yet another occasion, the light hovered a few centimeters in front of my face, and it seemed to be reflected very dimly by the inside of a white cone-like structure. Indeed, a larger shrouding structure around the light would explain why it is only visible from particular angles and not from all around. We can exclude that it is KM's body or hand that shrouds the light, because he usually talks or breathes audibly inside the cabinet.

Often, the single light is joined by a second light during the sitting, and on two occasions I have seen three lights moving around the séance room simultaneously. For example, at a sitting in Basel on April 10, 2011, two lights performed slow and small movements, somewhat in concordance, whereas the third light flew rapidly across the room, zig-zagging, touching the floor, then immediately rushing straight up to the ceiling, etc. During this display, HB talked continuously inside the cabinet, and was very strict that 4LC be performed, and that all sitters form a chain with their hands. Still, the three lights moved around the room. In general, the displays of the phosphorescent lights last for several minutes. When I performed the 4L+J control at the sitting on October 17, 2012, in Basel, the light display lasted for 15 min. During this time, I controlled the left limbs of KM for 6 min without interruption, and all limbs of KM plus Julia's hands for an additional 37 sec. I saw only one light at a time, but many sitters reported seeing a second light. The movements of these lights continued seemingly unimpaired while I was performing the body controls.

Whitish-red light. After the last ectoplasm display on April 21, 2011, in Hanau, HB announced that the Chemists would try to condense a part of the ectoplasm into a pure mass of vital energy. H turned the red light on, and opened the cabinet curtains together with Julia, who had only joined the Circle a few weeks before. We saw that KM was holding something very

bright in his closed left hand, an intense reddish glow shone through the fissures of the fist. Then, he opened his hand. A little flame-like structure sat on the palm, took off, and flew around in the room, but always in front of the medium (not more than 1–2 m distance from him). Its core of almost one centimeter's size was shining in a very intense white-red light of fluttering nature. This core was surrounded by a halo of another centimeter with a less intense and more reddish glow. When it moved very fast, the perception of its movements resembled a blurred red line that was interrupted at regular intervals. The fluttering was thus revealed as being caused by a pulsation of the light, quickly turning on and off (Figure 3). The light also entered the cabinet (the curtains of which had been closed in the meantime), but we could see it moving around inside, shining through the curtains. It flew out into the room once more, and the curtains were opened again. After about 20 sec, the light slowly approached the entranced medium, his head resting with seemingly closed eyes on the left shoulder. He raised his left hand slowly toward the light which landed in the middle of the palm, the fingers closed, and the light disappeared immediately as if being switched off. All this took place in red light which was sufficient to see all the sitters close to the cabinet, the cabinet itself, and KM.

Handkerchief Flight

This phenomenon concerns a handkerchief with many phosphorescent straps sticking to both sides of it including its corners. Usually and at HB's request, Jochen or Julia charge these straps with a flashlight. Due to the many freshly illuminated pieces of phosphorescent strap, the entire handkerchief is then dimly visible, shining a very dull white. Then, one of the sitters is asked by HB to take a corner of the handkerchief between thumb and forefinger, and to hold it out into the U-shaped space between the sitters in darkness. At some point thereafter, something unseen manipulates the handkerchief, and the sitter is instructed to let go of it as soon as its lower end is lifted upward. If all works well, the handkerchief will then fly freely in the space between the sitters until it falls down. I have witnessed the handkerchief phenomenon on three occasions. Because the sitters sit so close in Hanau, its movements can be observed very carefully. On one occasion, the handkerchief was held by another sitter only about 40 cm in front of my face, and on the other two occasions, the distance was similar because I held the handkerchief in my own fingers while bending my head a little forward.

The mode of agitation and flying of the handkerchief is very peculiar. I could clearly see that the handkerchief is manipulated from all sides, being agitated and tossed in all directions. However, I was neither able to see



Figure 3. Photograph of the flickering whitish-red flame in flight, taken during a sitting in March 2011 in Koblenz, Germany, with a shutter speed of 2 sec. It shows that this light is moving rapidly around the space in front of KM; the interruptions of the line reveal its pulsating nature. KM rests motionless on the chair with his hands on his belly, whereas the hand of the sitter on the right of the cabinet is blurred by a movement. There is a heap of supposed ectoplasm and a drinking bottle between KM's feet, and a bucket with a towel behind his right leg. The picture was taken by Jochen Soederling and is reprinted with his kind permission. To enhance the visibility of the details, the photograph was slightly altered by the author.

a “dark swirl” or “fog” around it (as some sitters have reported at other sittings), nor something solid that might have grabbed and twitched it. Similarly, when the handkerchief is in flight, I have never seen dark shades or shapes which might have grabbed and carried it across the room. In fact, no sitter has ever reported seeing a structure that obscured the luminous stickers during flight. The handkerchief is always fully visible from all directions. Moreover, the handkerchief is not hanging down loosely from one point, but it is spread out laterally. The degree of spreading varies, but if it is beautifully developed, only its sides and tips are hanging down and they perform upward and downward movements. These strange-looking movements closely resemble the pulsating movements of a jellyfish swimming in water (Figure 4).

For example, at a sitting on April 21, 2011, the handkerchief rose

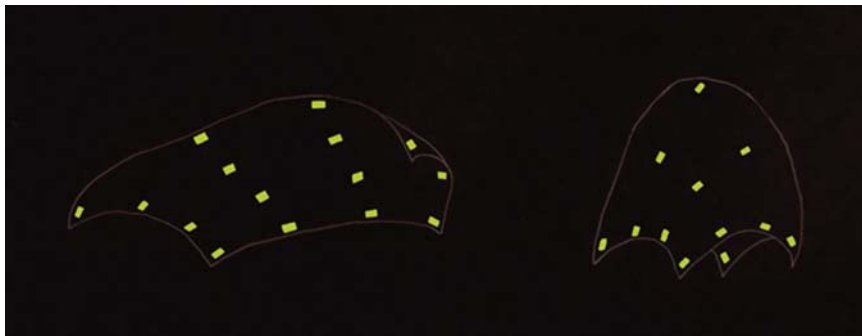


Figure 4. Illustration of the handkerchief with pieces of luminous strap in flight, depicting the peculiar jellyfish-like mode of moving.

into the air after I had released my grip, and floated across the room in the described manner, usually directly above the heads and bodies of the sitters. Finally, it landed on my lap. When I released the handkerchief on December 12, 2010, it floated gently further upward and continued with a flight around the room that lasted for about 2–3 min. It floated upward to the ceiling, sometimes lowered its flight height again, but most of the time it flew at about the height of the sitter’s faces, often gliding right in front of their faces and stopping immediately before them. Toward the end of this flight, it descended a bit, and dropped to the floor in the middle of the room. Immediately, HB asked the next guest to pick up the handkerchief, to hold it, and to let it fly. Subsequently, the three remaining guests present were also invited to let it fly by HB, who talked almost constantly from the chair inside the cabinet. The latter flights were comparably short. However, during one of these flights, the handkerchief floated toward the wall and the ceiling right above my head, even a little bit behind my head, and then slowly descended directly upon my upward-looking face, being fully spread. It covered my entire face and the top of my head. After lingering there for about 5 sec, the handkerchief was grabbed again from the *back* of my head with a distinct touch. My head rested only about 10 cm from the wall, if not less. Then, it floated for a short time across the room, until it dropped to the floor.

Plaque Phenomena

The term “plaque phenomena” refers to the display of mostly hand-like structures above or on a plastic plate that has been painted with phosphorescent color on one side. Such plaques have been used by several circles and

researchers for physical mediumship in the past to show the shape of the structures in the dark (e.g., Crawford 1921, Pap 1938, Schrenck-Notzing 1933). The plaque of the FEG has an edge length of 13 cm. When it is not used during the sittings, it is put away with the phosphorescent side facing down. Just before the plaque phenomena are supposed to be displayed, one of the sitters (recently, usually Julia) charges the phosphorescent side of the plaque with a flashlight, and then positions it onto the drum (or bucket) in the *action zone*. After a few minutes, the dark shapes usually enter the luminous plaque from both its sides, not from the direction of the cabinet. I saw dark shapes above the plaque at the first cabinet sitting with guests on October 27, 2009, and since then I've seen them eleven times. During the first sittings, the plaque was illuminated only very dimly, and the structures were barely visible above it. They also retreated from the plaque after a maximum of 5 sec before briefly appearing again a few times. Throughout the following months, the plaque was charged with more light, and the structures became considerably more visible, remaining on the plaque for up to 20 sec. The structures are most clearly seen from the chairs directly next to the drum in the *action zone*, and I have repeatedly sat there. The distance from the feet to the drum is at times only about 30–40 cm, so the sitters around the drum can look very closely at the plaque. The structures above the plaque vary greatly in size and shape. Even during the sequence of displays within the same sitting, I have observed four to five different shapes. They tend to be hand-like in most cases and possess three to five digits. Figure 5 gives examples of shapes that the structures can assume. But even when they look very hand-like, they differ from human hands in that their outline is rather rough, they don't have finger joints, and they are rather flat and not three-dimensional. They share many similarities with the hands shown during the ectoplasm display (see below). They are solid, because they can push a handkerchief from the plaque (Figure 5a and Figure 5b), and dislodge the plaque from the drum. However, I have also seen large shapes without discernible structure moving about the plaque, covering about one-quarter or one-third of it. Such imperfect forms of hands or other structures were reported from several earlier mediums, such as Eva C. and Stanislava P. (Schrenck-Notzing 1923), Rudi Schneider (e.g., Schrenck-Notzing 1933:25), and Kathleen Goligher (Crawford 1921). From December 16, 2010, on, the 4L+J control was always performed during the plaque phenomena at the sittings I attended. HB asks all sitters to join hands, and he talks continuously.

According to my audio recording from the sitting on October 17, 2012, in Basel, I had KM's left limbs under control for 1:03 min, and I controlled KM's four limbs plus Julia's two hands for another 1:05 min. Their bodies

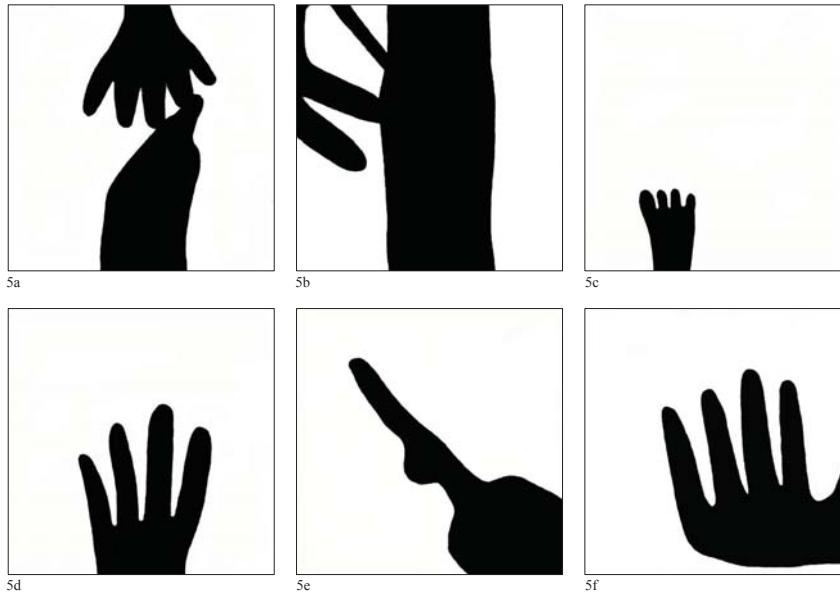


Figure 5. Six examples of different shapes that appeared above the phosphorescent plaque placed onto a hand drum or a bucket. (a, b) Show shapes that move a handkerchief lying across the plaque. (a–d) Were observed at the sitting on March 30, 2010. (e, f) Appeared at a sitting on March 20, 2012.

were perfectly still, although the usual shapes of hands above the plaque were moving about.

Manipulations of Balls

During some of the sittings, a small wooden tray is placed on the drum (or bucket) by KM's assistants. Then, three little phosphorescent balls are illuminated with a torch and put on the tray. Subsequently, these luminous balls are manipulated by dark finger-like shapes, and are often knocked down from the tray. Also, the tray itself is knocked down sometimes. These items are then usually rearranged by a sitter, and the manipulations are repeatedly performed. In general, this type of display shares many similarities with the plaque phenomena. When the balls were manipulated at my sitting in Basel on October 17, 2012, I controlled KM's left limbs for 2:48 min, and additionally performed the 4L+J-control for 42 sec.

Trumpet Flights

From the first cabinet sitting, sitters were treated to a familiar phenomenon from the heyday of spiritism—namely, the flight of a cone of cardboard called a “trumpet.” On October 27, 2009, Jochen used a flashlight to illuminate the strap around its large end, and then he placed the trumpet on the floor in front of the cabinet, between its curtains and the *action zone*. After sitters had sung for a while, the trumpet began to shuffle across the floor, fall over, and also rise into the air. Here, it moved toward the sitter’s faces in the dark, rose toward the ceiling, and performed swinging movements. When it fell to the floor, Jochen put it back in its place. In total, it rose from the floor four times—in my estimation, the longest flight took about 20–30 sec. Like all other phenomena occurring in the FEG, these flights worked better and better as time went by. The duration of the flights increased considerably, and the movements became more varied and faster. For example, now the trumpet frequently performs fast horizontal and vertical circles, or “nods” with fast upward and downward movements in front of the sitters’ faces, or touches and strokes the sitters’ bodies. On one occasion, I saw it pass above the heads of the sitters at the rear of the room flying behind them at a distance of about 3–3.5 m from the cabinet.

Frequently, sitters are asked to count from 5 to 0, and then firmly press their hands which are held in a chain. This is supposed to generate additional energy, and indeed, this pressing is usually followed by increased trumpet movements. One time, HB asked me from inside the cabinet to hold the trumpet in the space between the sitters by the large end with the luminous tape (for the order of sitters during this séance, see Figure 1). This I did, and rather soon I felt something pull the trumpet on the smaller, tapered end from the direction of the cabinet. I continued to hold the trumpet against the efforts to pull it out of my hands by the invisible actor, until at one point, the “puller” seemed to lose its grip and let go of it. At my last sitting with KM in Basel, Julia placed the trumpet in front of the cabinet on the floor. Shortly after, it rose into the air, seemingly touching the ceiling of 2.6 m height at least twice. Then, it performed various movements until it fell down on the floor right in front of me. This flight lasted for 7:25 min without interruption, and was followed by a few shorter flights after Julia had repositioned the trumpet on the floor in front of the cabinet. During the first long flight, I controlled KM’s left limbs for 1:35 min, and was able to implement the 4L+J control for 15 sec. As usual, their bodies didn’t move, and HB was talking or audibly breathing constantly, while the music was turned down or off. In general, I have frequently experienced silence (except for HB’s talking) in the séance room when the music was turned

off, or when the operator of the CD player had difficulties handling it in the dark. It seems that the trumpet flight (but also the other phenomena) is performed without the production of the slightest sound, even when rapid and large-scale movements of about 2 m magnitude are performed.

Ectoplasm Display

Ectoplasm is usually displayed in red light. KM typically displays ectoplasm after a phase of “preparation” of his body. It lasts for one or two songs from the CD player, during which KM rests inside the cabinet, and the sitters sing. When HB announces that KM’s body is ready to produce ectoplasm, he tests the amount of red light he considers appropriate for the upcoming display with open cabinet curtains. Then, he instructs the two sitters at the sides of the cabinet about how to open the curtains. For example, when ectoplasm is still protruding or hanging from KM’s mouth, HB signals the times for turning the red light on and off, and for opening and closing the curtain by stomping his right foot on the floor. After the ectoplasm has disconnected from the mouth, HB talks normally and gives verbal instructions. Sometimes, the entranced medium also opens and closes the curtain himself while he gives verbal commands regarding the red light.

Ectoplasm was first displayed on January 14, 2010, the curtain being opened only briefly for a few seconds in red light. I first saw the supposed ectoplasm on March 30, 2010, when Peter Mulacz and Stephen Braude were also present. The entranced medium opened the cabinet curtain with his hands three times. The first time, a white substance hung out of KM’s mouth, ending in a hand-like shape that lay on his chest. The second time this substance seemed considerably elongated. It reached down to the floor, the hand lying flat on the floor. The last time the hand rested on the medium’s left shoulder without connection to KM’s mouth. In these early ectoplasm displays, the expositions in the red light lasted no longer than about 5 sec. Subsequently, the duration and the number of the expositions per sitting increased. For example, at a sitting on October 17, 2012, the eight expositions had an average duration of 29 sec. The amount of the extruded substance increased as well. At times, it appeared to reach a length of at least 2 m, accumulating in a heap on the floor between and in front of KM’s feet. He usually bends his head forward and facilitates the ectoplasm’s outflow of the mouth by accompanying movements of his hands. Moreover, variations of the ectoplasm phenomena began to develop.

For example, the mass extruded from KM’s mouth would bend forward and upward at the region of his belly like the neck of a swan, the hand at its end performing jerking upward and downward waving movements, and also turning to its sides. During recent years, the extruded ectoplasm

typically gathers in a heap on the floor and disconnects from KM's mouth. The substance frequently ends without the shape of a hand. A recurrently displayed phenomenon is a column with a diameter of 10–15 cm that rises from the floor up to a 1.7 m height. Similarly, a hand often rose from the heap on the floor, being connected to it by a finger-thick white cord or a flat "arm," and it performed waving movements. Sometimes, KM gathers the white mass also on his lap, and the hand rises from there. In general, KM seems to rest still on his chair during the rising or moving of the ectoplasmic structures. In more recent sittings, large strands of white substance are sometimes attached to the inside of the opened cabinet (Figure 6). Often, KM pulls these strands of ectoplasm slowly down from the curtains. Moreover, KM handles a part of the mass with his hands, tearing it widely apart and demonstrating its fine structure to the sitters with the bright red light shining directly onto it (Figure 6). Occasionally, KM works out crystals or other solid objects from it, and puts them into the hands of Julia. According to HB, these objects are materialized within the ectoplasm. On rare occasions, the ectoplasm contains miniature faces of alleged deceased persons which resemble black-and-white photographs. Similar faces have been reported from other mediums (e.g., Schrenck-Notzing 1923, Hamilton 1942, De Boni 1967, Gaunt 2013). The entranced KM also wraps the ectoplasmic veil around his entire body with his hands—allegedly to supply his body with new energy. Then, his body is covered all over by an extremely fine and very thin, almost fully transparent whitish shroud. From early 2013 on, the ectoplasm has obtained an apparent self-luminosity. If the red light is turned off, it shines with the same greenish phosphorescent glow as the greenish lights described above. We have seen this luminous ectoplasm at our sitting in Austria (Braude 2014 in this issue).

In general, the alleged ectoplasm is displayed in three different main conditions: The first resembles a very thin cloth of delicate texture, as if woven out of extremely fine threads (e.g., when the veil is wrapped around KM's body), the second roughly resembles irregularly arranged cotton wool or cobweb (e.g., the straps attached to the inside of the cabinet, the masses from which solid objects are worked out, and the luminous ectoplasm), and the third resembles a rubber-like compact mass (e.g., the hands performing waving movements). In all cases, its color is white.

Apports

Apports, i.e. objects appearing from nowhere in a seemingly inexplicable manner, have a long tradition in the FEG. They belonged to the first anomalous phenomena reported in the Hanau cellar room, and allegedly occurred as early as 2006, long before KM began to enter a trance state.



Figure 6. Photograph taken December 23, 2012, during an ectoplasm display in bright red light at the Basel Psi-Association. The photograph illustrates the delicate fine structure of the supposed ectoplasm which appears to consist of thin threads and bundles of these threads, resembling thick cobweb. Behind KM's right leg, there are drinking bottles and the usual bucket with a towel. The photograph was taken by Pablo Sütterlin of the Basel Psi-Association with a shutter speed of .5 sec at 3200 ISO. It is reprinted with the kind permission of Lucius Werthmüller.

Reported apports comprise a wide range of objects, among them a variety of (semiprecious) stones, crystals, and metal objects, an old newspaper, loads of water spilled upon the table and the sitters, a shower of rose petals, an apparently spontaneously created replica of a piece of jewelry of one of the sitters, and wax balls containing slips of paper with personal messages written on them. The authors of these messages who could be identified are deceased, and in general, their handwriting seems to match their style of handwriting when they were alive.⁶

Personally, I have witnessed 12 apports during my sittings with the FEG. Most of them occurred in red light at the end of the séances.

The Question of Genuineness of the Phenomena

The most important question concerning the manifold phenomena described in the preceding section is whether they are genuine, or whether they (could) have been produced by fraudulent means under the prevailing control conditions. Often, this is difficult to tell, and one even needs to consider the possibility of “mixed mediumship,” i.e. the possibility that a medium produces a mixture of both genuine and conjured phenomena. Hence, when performing research into physical mediumship, one needs to be very cautious before one forms a definitive opinion about a given phenomenon, or on the phenomenology displayed by a medium as a whole. In other words, one needs to be careful not to throw out the baby with the bath water. When a researcher forms a negative judgment about certain phenomena or a medium, he or she needs to have good reasons for it. In the following, I describe how I proceeded in documenting the development of the phenomena of the circle, and why I finally arrived at the conclusion that at least some of the phenomena displayed by KM are indeed not genuine.

My Personal Involvement with the FEG and KM

When I first met the Circle, the phenomena consisted mainly of table phenomena such as those routinely reported from early developmental stages of circles for physical mediumship. They were interesting, but it was clear that there was no possibility to document or to control them in a reliable way. This situation changed after the cabinet sittings were established. The psychokinetic phenomena took place in a space away from the cabinet and KM. Moreover, Jochen and other seemingly trustful sitters including myself were allowed to take photos of the ectoplasm phenomena in red light. In the early days, HB was not reluctant to introduce IR-filming and other contemporary documentation devices into the sittings. We all hoped that it would be possible to use such devices when the phenomena reached a certain degree of stability. Moreover, 4LC was soon introduced, and some of the psychokinetic phenomena such as the raps, the lights, and the flying handkerchief intrigued me. Still, I always wanted to sit next to KM, and when controls had been introduced, to control him at the cabinet to be able to form a better opinion about the true nature of the phenomena, and about certain aspects of their appearance.

After each sitting I attended, I sent reports of my observations to KM. These reports served a twofold function. First, I wanted to document my observations, and second, they were a reward for KM in which I stressed my positive impressions to improve our contact. It was clear that I needed to do something more than simply attend the sittings in irregular intervals

if I would ever be allowed to obtain a deeper insight into the circle's modus operandi, and to be allowed to sit next to the cabinet to perform controls one day. Indeed, KM was always very thankful for my reports, and a very friendly relationship developed. Several of these reports can still be found on KM's blog. Yet, I always kept a second version of these reports in which I added notes about critical observations and suggestions about how the controls could be improved. In the beginning, I related these suggestions to KM, but he never reacted to them. For example, after the first cabinet sitting I attended, I suggested that he should use a wicker chair that would creak audibly when he tried to leave it (like the Icelandic medium Indridi Indridason did, see Gissurarson & Haraldsson 1989), or that he should use small phosphorescent stickers on his clothes so that the sitters would be able to see where he was in the dark. After I had participated in 12 cabinet sittings (and 14 sittings in total), I asked KM if he would allow me to perform the sensitive act of controlling him at the cabinet. He readily agreed. In this sitting on July 6, 2012, the usual wealth of phenomena appeared. I was allowed to perform 4LC (and also 4L+J control during two of the phenomena), and I didn't notice anything suspicious. Yet, I wanted more security. I had not controlled the entire room before and after this séance, nor KM's body. Moreover, it was important for me to control him at a location outside of Hanau to limit the possibility that he had helpers among the sitters. Indeed, KM kindly allowed me to control him again at a sitting he was to give in Basel on October 17, 2012. This sitting, however, revealed several quite suspicious details. The most important were the following:

- We had agreed before the sitting that I would pat down KM's clothes when he entered the séance room. However, when he entered it, KM refused my attempt to do so, stating that this had been performed often enough by now. He simply walked on and sat down in the cabinet.

- Two minutes and 40 seconds after KM began with his rapid breathing, the red lamp fell down from its small table with considerable rumble. Julia seemed very surprised, and nobody could explain why the lamp had fallen down. Yet, it seemed as if somebody or something must have pushed the lamp over, or got caught in its cable in the dark. KM, however, continued to breathe in his cabinet.

- Sometimes, during the phase of preparation before the ectoplasm display, sparkling sounds can be heard from within the cabinet. They resemble tiny electrical discharges and according to HB they indicate the preparation of KM's body for the generation of ectoplasm. I distinctly heard them from my position next to the cabinet. I noticed, however, that these sparkling sounds didn't emerge from KM's entire body, but only from a single and very distinct location above his left thigh, about 0.6 m above the

floor. They sounded as if a crinkly plastic foil, an adhesive tape, or a hook-and-loop fastener was being opened slowly.

- Before the ectoplasm displays began, HB announced that he would later materialize a large object within the ectoplasm. He explained that this process would require a lot of time and energy. This materialization process began with the second ectoplasm display: KM's body bent forward and he began to fumble with the ectoplasm. However, only a few seconds after HB had begun to work on a dense white agglomeration within the ectoplasm, a large semi-precious stone dropped to the floor. It looked like an accident. Later, HB confessed that the stone appeared much earlier than expected. Moreover, I was intrigued by how HB moved KM's hands. Usually, HB seems to have difficulties operating the body of "the medium," but on this occasion the finger movements looked as if performed with almost waking consciousness (KM's eyes being open, gazing at the agglomeration HB fumbled with).

- When I opened the curtain during the ectoplasm display and an ectoplasmatic hand rose from the heap of white substance on his lap, I could clearly see that a very fine thread was fastened to the back of this hand, and that this thread lead directly upward to the loop of the cabinet to which the curtains are fastened. I did not see the last part of this thread due to the impaired red light conditions at that height. But I saw about three quarters of its supposed length, and it was clear that it led straight upward to the spot on the hoop where the two curtains parted. Both KM's arms hung down at the sides of his body inside the cabinet, with the hands not being visible.

- After KM awoke from trance, I remained with Julia and him at the cabinet. When we performed the control review of the cabinet, I found two pieces of black tape that looked heavily manipulated. They had a length of three to five centimeters. One was lying on the floor, the other one was sticking to the bottom of the chair, protruding into the air next to the edge of the seat. It seemed obvious that they originated from the long black vertical strips of tape that stick to the inside of the cabinet curtains. Both pieces of tape were not there when I checked the cabinet and the chair before the sitting. KM claimed that he did not know where they came from, and that HB is likely to perform all sorts of weird movements with KM's body in trance. However, it is clear that these tapes might well have been used to facilitate the display of certain phenomena, e.g., the attachment of the ectoplasm to the cabinet curtains. At this sitting, large strands of ectoplasm were attached to both sides of the cabinet interior (similar to the display shown in Figure 6).

- Consequently, I also searched the inside of the cabinet curtains for possible remnants of the ectoplasm, and I found several extremely thin

white (or transparent) fibers with a synthetic appearance. They were up to 3 cm long, and some of them stuck together in small bundles. KM stated that they must stem from his and Julia's clothes, because they transported their clothes and the cabinet curtains in the same suitcase. However, these fibers didn't look like typical fluff from clothes to me, especially not from the clothes I had seen of KM and Julia. They looked too thin, too long, and too synthetic.

All these observations indicated that the ectoplasm displays, at least, were manipulated. This assumption fits well with certain other suspicious observations I had made in the past. For example, it was obvious that, if KM intended to cheat, he could easily prepare the required props during his retreat to a private room to induce his "pre-trance" state. Moreover, I had never seen how the ectoplasmatic hand developed out of the previously extruded ectoplasm. Usually, the hand is already there in its entirety when the curtains are opened again at a given time. Hence, an artificial hand with a thread fixed to its back could simply have been put there in the darkness by KM between two curtain openings. The thread could be led across the cabinet hoop, and pulled with one of his hands to let the hand rise. Indeed, KM's right hand especially is never visible when ectoplasmatic structures move. At least four other sitters have on different occasions seen an extremely fine thread that lead upward from the rising hand or column. Its upper end is usually not perceptible, presumably due to the lower light conditions at the greater height (the cone of red light emitted by the lamp is always directed toward the floor). At a previous sitting, I also saw how an ectoplasmic column rose upward precisely to the area of the hoop where the two curtains parted, and almost touched it. Some sitters commented on that. HB offered an excuse for this occurrence and claimed that the column should have risen farther outward into the room, not below the cabinet hoop. HB then added that the Chemists would try to improve this phenomenon in the future. However, this never happened. Rather, the typical ectoplasm columns rise now farther inside the cabinet, seemingly crawling upward on KM's right body side to the rear of the cabinet.

I discussed all these findings with KM and Jochen. In the end, I decided to continue following the development of KM's phenomena because some of the psychokinetic phenomena such as the raps or the flying handkerchief fascinated me, especially when they were performed under 4L+J control. I had no explanation for them, just like all the parapsychologists I spoke to. One occurrence intrigued me in particular: While performing 4L+J control at the Basel sitting mentioned above, I moved my left hand accidentally *in front of* KM's left leg when I wanted to put it onto his knee, returning my hand from the control of Julia's right hand on KM's right hand and thigh.

At that moment, the trumpet, which was circling freely around the room, dropped to the floor. It seemed as if there was a connection between my accidental hand movement in front of KM's body, which he certainly wasn't aware of, and the dropping of the trumpet. Hence, I thought, my hand might have disturbed an assumed flow of psychokinetic force from KM's body to the trumpet, although I felt nothing.

Nevertheless, I remained skeptical toward the ectoplasm and the cabinet sittings as a whole. I participated in one more table sitting in February 2013. The table went wild, levitated a few times, we saw several sparking lights of unexplained origin, a dim greenish light hovered steadily over KM's head for about four seconds, and we heard faint raps on the ceiling. While these phenomena occurred, KM sat at the table and was allegedly in bodily contact with his neighboring sitters. Also, at that time, the plans for performing controlled experiments in Austria were already advanced. Filming the psychokinetic phenomena in action was one of our goals. KM even announced that the Chemists would try to show us the disintegration of ectoplasm. I was curious. Before the cabinet sitting in Austria, I inspected everything in the room, and I also measured and photographed the strips of black tape on the inside of the cabinet curtains. To my disappointment, HB skipped all psychokinetic phenomena during this cabinet sitting—allegedly, to save energy for letting the ectoplasm extrusion be filmed (see Braude 2014 in this issue). This we accomplished, but HB didn't show the disintegration of the ectoplasm. The ectoplasm also didn't stick to the interior of the cabinet curtains. After this comparably weak cabinet sitting, I expected that all the stripes of black tape would still be in place, and, indeed, they were.

As a consequence, I told KM that it would be important to me to control him at least once more at the cabinet before I'd go public with my report about his mediumship. For performing these controls, I suggested a sitting in Basel again. Once more, KM readily agreed. Yet, about two weeks before the appointed sitting, I received an email in which KM warned me that I was not allowed to perform a "one-man investigation." He added that if I exhibited distrust of him, HB would immediately replace me at the cabinet with somebody else. I replied that I was only concerned with performing the usual and routinely applied 4L+J controls, and that I would like to inspect the séance room before and after the sitting. KM seemed satisfied. One day before the appointed sitting, however, KM informed me in drastic words that his "spirits" told him that they would not regard me as a normal sitter, and that I would block the phenomena in this public sitting if I came (which would, of course, imply being removed from my place near the cabinet by HB). KM suggested that I'd better wait to control him until our next

experimental sessions in October 2014 in Austria (in the meantime, KM has postponed these sittings to February 2015). Consequently, I desisted from travelling to Basel for an expensive sitting. KM replied with a greatly relieved message, stressing that he knew I was doubting the phenomena, and that this put too much psychological stress on him. He simply wouldn't like to be controlled by me during public sittings. Needless to say, the behavior of KM alarmed me, and I decided it was high time to subject his mediumship to a thorough re-evaluation.

Gathering Evidence for Fraud

First, I spoke with Jochen about my disappointment regarding the recent behaviour of KM, and he agreed with my complaints. He sent me two series of photographs he took during cabinet sittings in 2011 for my inspection (in total, 179 photographs). Around the same time, I was informed by Eberhard Bauer, one of Hans Bender's former assistants at the Institute for Frontier Areas of Psychology and Mental Health in Freiburg that the luminous ectoplasm we saw in Austria might well have been artificial phosphorescent spider web that one can buy as a Halloween gimmick, and that there are indications that KM had bought such material on the Internet. Of course, I bought the artificial cobweb myself—both in its normal and in its luminous form. Moreover, I contacted sitters who had sat with KM earlier and asked them if they had observed suspicious occurrences. In the following, I first describe my findings regarding the cobweb. Thereafter, I turn to several discoveries revealed by the two picture series, and other lines of investigation.

Artificial cobweb, part I. After I heard that KM might have used artificial luminous cobweb, I asked him on the telephone if he knew of this substance, and if he ever used it. He denied it. Two days later, my phosphorescent cobweb arrived. I was immediately struck by the close resemblance, if not identicalness, of its look and the appearance of the luminous ectoplasm KM showed us in Austria. Also, the very fine filaments of this cobweb look very much like the extremely fine fibers I had spotted on the inside of the cabinet curtains in Basel. Moreover, both the luminous and the non-luminous cobweb looked practically identical to the ectoplasm shown on several photographs of KM (e.g., Figure 6). Most importantly, KM had put a post on his blog in February 2012 that was said to describe the generation of ectoplasm in daylight at home. A series of pictures illustrated how the ectoplasm developed from mucosa around KM's tongue (side note: an apparent contradiction to his usual assertion that the ectoplasm streams down from a "gate" in the roof of his mouth). The photographs included two closeups of his mouth and tongue, and three pictures of his head and

trunk with a long and torn veil of ectoplasm that seemed to emanate from his protruding tongue. I was able to reproduce such photographs quite easily with my cobweb. Interestingly, when I wanted to compare my photographs with his photographs on the blog, I found that KM had deleted this posting. Four days earlier, when I had spoken to KM, the posting had still been there, and I had not mentioned it in our conversation.

Luckily, I had already copied this posting to my computer. On close examination, I found that the last of three pictures that showed his head and trunk differed from the first two in an odd way. Allegedly, these three pictures demonstrate how the ectoplasm emanated from his tongue, protruding downward across his chest and abdomen, and the last picture was supposed to show the detachment of the ectoplasm from the tongue and its partial disintegration. Indeed, the ectoplasm looks somewhat different on picture three. However, KM must have worn a different t-shirt when he took the last picture, or he must have rearranged the neckline of his t-shirt in a conspicuous way while the ectoplasm was flowing downward from his tongue across his chest, while it disintegrated, and while he took photographs of this process in a semi-trance state within several seconds. In the first two pictures, KM wears a black t-shirt with a plunging neckline, but in the third picture, the neckline of his shirt runs tightly around his neck. Because the background of this picture is different as well, it seems likely that the last photograph was taken on a different occasion. Indeed, the numbering of the photographs in this posting does not fit KM's description of the order in which they were taken to document the events. For example, the photo with the name IMG_0252 is followed by photo IMG_0246, which is supposed to show a later stage of the ectoplasm development. In sum, there were several indications that the story about how KM produced ectoplasm in daylight at home was arranged with the help of Halloween cobweb. Knowing that I had ordered such cobweb in the meantime, KM might have had a good reason to quickly remove this posting from the blog.

2011 photo series, part I: The whitish-red light. I have seen this red light only once in April 2011, and, although its peculiar pulsating nature looked somewhat inorganic, I was quite intrigued by its appearance (Figure 3). According to information I have collected now, it appeared at least two times in Basel, two times in Koblenz, and one time in Hanau between 2011 and 2013. Moreover, according to a blog posting from March 27, 2013, it appeared at "different private séances." Pursuant to information from FEG members, related in particular in an email sent from Julia to me and Jochen on July 30, 2012 (which was also known to KM), one of these private séances was held a few days earlier for a Swiss guest. On this occasion, up to three of these red lights appeared, and they seemed to emerge from KM's

mouth. According to the just-mentioned blog posting, the red light also flew (in and) out of KM's mouth repeatedly at a sitting held in Basel in March 2013. Jochen indicated that this light looked similar to a prop called D'Lite Flight, an LED that is mounted to the top of a thin wire. The other end of the wire is fastened with an artificial rubber fingertip that is usually worn on a thumb. Equipped with this information, I started to subject the photographs of Jochen to a detailed scrutiny. The first series of pictures was taken at a sitting on March 18, 2011, in the living room of H in Koblenz. It contains 19 photographs that show the whitish-red light in action in the red light of the floor lamp. Both KM's hands are well visible in this series. Figure 3 is the 9th photograph of the series. The fingers are widely spread, and both hands rest upon his belly—a rather untypical position for KM during cabinet sittings. He never holds his hands on his belly during the usual ectoplasm displays. In Figure 3, the light is moving fast, thus revealing its characteristic pulsating nature that is also displayed by the D'Lite Flight. The light moves in an arch, almost describing a quarter of a circle centering on KM's right thumb.

The first five photographs of this picture series show how the light leaves KM's left hand in an upward direction slowly and steadily, while his right thumb, looking strangely elongated, moves upward in perfect concordance with the light. According to the Exif metadata of these photos, they were taken in intervals from three to seven seconds. A dozen other photographs show the same concordance of the thumb movement while the red light is moving faster as in Figure 3, presumably dangling on the wire. When the light moves upward the thumb moves upward, when it moves downward the thumb moves downward. In all these pictures, the thumb is the only body part of KM that moves. In eight of the photographs, the light describes an arching movement that seems to pivot around his right thumb as in Figure 3, but there is no photograph in which the light performs comparable arching movements with a different orientation. The latter should be expected, though, if the light moved independently from the right hand or thumb. Finally, the light appears to hover around KM's right hand at more or less the same distance.

All these observations are compellingly complemented and confirmed by the second photo series. This series was also taken in the living room of H, on April 15, 2011. It contains 90 photographs of the whitish-red light in action. Apart from intervals in which no pictures were taken, the pictures of the moving light were mostly taken in intervals from one to two seconds. Yet, these pictures must be edited before one can see the crucial details such as KM's right hand (e.g., using the "Shadow/Highlight" function of Adobe Photoshop CS2), because KM has turned his body slightly away from the

light emitted by the red lamp, and holds his right hand further to the back of his right side. Hence, it is almost hidden in the shadow of his body and not visible on the 41 original photographs taken when the red lamp was switched on. It seems KM has tried to avoid revealing his right hand in the light of the red lamp, as he did in the first picture series from March 2011. The 49 other photographs of the second photo series were taken in darkness, 33 of them with closed cabinet curtains, and 16 with open curtains. This is easy to tell because the light emitted by the whitish-red light itself is sufficient to see the closed curtains or KM inside the cabinet after appropriate editing with Photoshop. For example, it is plain to see in the pictures taken in darkness with open cabinet curtains that when the light moves upward into the open cabinet, shining onto KM's face, or when it hovers above his outstretched left hand, his right hand has also moved upward. Sometimes, one can even see the right thumb pointing toward the light. If the light moves closely above the ground, the right hand does the same, and KM bends down. When the light performs frontal full circles into the camera, KM's right hand can be seen exactly in the middle of these circles, his thumb seemingly pointing straight toward the camera. In the photographs that are said to show the whitish-red light moving in front of the closed cabinet curtains, it is obvious that KM simply stuck the light through the gap between the two closed curtains. This can readily be determined by the drapery of the two curtains on the floor. Moreover, all 33 photos taken in darkness in front of the cabinet with closed curtains show the light moving a) in the central area in front of the gap, b) in this central area but also in front of the left cabinet curtain, and c) solely in front of the left curtain (seen from KM's perspective). Not one photo shows the light moving in the central area and also in front of the right curtain, or solely in front of the right curtain. This is exactly what one would expect if the light was moved by the medium, sticking a device like the D'Lite Flight through the curtain gap with his right hand. Sometimes, one can even see a dim bright blotch between the two cabinet curtains, and that can be interpreted as KM's hand.

When I confronted KM with my findings about the pulsating LED device on the telephone, he swore that he had never possessed or used such a device, that he had never seen it, not even a video clip or a picture of it, and that he had not known that these devices existed at all. Yet, when I casually introduced the name D'Lite Flight into the conversation some time later, he seemed to understand quite well what I meant by it. In conversation with Stephen Braude, KM tried to play down the significance of the suspicious whitish-red light, and stated that it had only appeared two times in public some three years ago. When Braude asked KM whether it appeared at the private séance for the Swiss sitter in 2012, KM denied it, and stated that the

light at this sitting had been blue, and thus must have been of a different nature. Yet, this is clearly not what Julia wrote to me when she described the phenomena of this séance to me shortly after it was held. In an email to me dating from April 1, 2014, KM claimed that the whitish-red light had not appeared for a long time, and that it most likely appeared for the last time in April 2011 when I saw it. Yet, as I have described above, this is wrong. According to KM's blog, it continued to appear until at least March 2013. In addition to these inconsistencies, Jochen behaved in a manner that I can only interpret as an indirect confession that KM admitted having used something like the D'Lite Flight. Jochen wanted to confront KM with my findings and with suspicions of his own, and then inform me about KM's reaction. Later, however, he didn't give me an explicit answer when I asked him for the result of this conversation, but merely advanced evasive and ambiguous statements. When I asked Jochen whether this kind of answer could be regarded as a confession of KM, he didn't deny it. And, when I told him that, consequently, I would interpret this behaviour as a confirmation, he again offered no protest (see Braude 2014 in this issue for a comparable behavior of Jochen towards Braude). In the light of these conspicuous subterfuges and the findings described above, there can in my opinion be no doubt that KM has used the D'Lite Flight (or an almost identical device) to produce the "spectacular spirit lights" he had promoted in a blog posting from August 2, 2011. Interestingly, KM deleted this posting from his blog only a few days after I had confronted him with my supposition that he must have used the D'Lite Flight. I had not mentioned this posting during our conversation.⁷

2011 photo series, part II: The rising hand of "Hans Bender".

The second photo series includes a sequence of 10 pictures that show how the ectoplasm hand of HB rises into the air from a heap of previously extruded ectoplasm in red light. After simple editing with the Shadow/Highlight function of Photoshop, one can see that the right naked forearm of KM hangs down at his right body side. During the first five pictures, the ectoplasm hand hovers closely above the floor in front of the heap of previously extruded ectoplasm, and the arm of KM doesn't seem to move. During the last five photos, the ectoplasm hand moves upward, and KM seems to move his right arm backward into the cabinet. At least, the sight of his forearm decreases continuously, and it is finally not visible any more on the last photograph, having moved into the full shadow of his body. The ectoplasm hand rises between KM's feet under the cabinet hoop, and drags a flat white arm behind it that appears to be draped and folded behind and beneath it. This arm bears a strong resemblance to the typically flat strands of ordinary cotton batting used for household and cosmetic purposes.

The first photo series from March 2011 contains five photos that show how an ectoplasm column rises upward for about 15 cm, and one can faintly see exactly the same suspicious movement of KM's right arm. While these observations prove nothing by themselves, it is obvious that such a movement of KM's arm would perfectly explain how the ectoplasm moves upward, given it was tied to a thin thread that led upward to the cabinet hoop. As described earlier, at least five sitters including myself have seen such a thread already.

2011 photo series, part III: The rising ectoplasm column. The second photo series from April 2011 contains other photos that show how an ectoplasm column is rising upward from a heap of ectoplasm on the floor between KM's feet. This series contains 20 pictures that were taken at intervals of about one second. This time, the column rises inside the cabinet, its top moves upward on KM's right body side. The first picture shows its top in a position slightly above his right thigh, and it moves upward to the level of his right shoulder in the subsequent photos. These pictures strongly confirm earlier visual impressions from the sittings I had attended: The column is clearly being pulled upward, it doesn't rise by itself due to its inherent and autonomous living quality and self-motivity as stated by HB. In the first photo, its top bends around Kai's thigh rising in the exact direction it will stick to throughout the rest of the picture series. It rises upward only on one particular and extremely linear line—one can add a line with a ruler following the path it travels. It leads straight upward to the area at the rear of the cabinet where the hoop is located. This is not what I'd expect from something that moves by itself. Rather, I'd expect at least a minimal degree of mobility in vertical and lateral directions. In the last pictures, the column's basal area consists of very fine and almost transparent material that is obviously drawn upward by the rising top of the column; the basal area clearly doesn't support or cause the upward movement, pushing the column upward.

In addition, KM performs very strange movements with his head, bending it from the far left to the far right several times in a row. Yet, during other ectoplasm displays, the head of the entranced KM rests usually more or less unmoved. KM's right arm hangs down at his right body side in the present photo series, just as it usually does when ectoplasmic structures rise. However, he seems to hold it constantly in a position close to the rear of the cabinet, perhaps even behind his back, because it is not visible on any of the edited photographs. Concordantly, one sitter has noticed with suspicion how KM held his right arm toward his back during ectoplasm phenomena, and several others noted that it was usually hidden beneath his right body side.

Taking the observations from the column photo series and from other

series together, it seems likely to me that the ectoplasmic column is pulled upward by a thread that (in this case) runs to the back of the cabinet hoop. The constant rising of the column might well be accomplished by a combined and alternating effort of KM's hidden right hand and his mouth.

I suppose that it is quite unsatisfactory for the reader that I wrote at length about evidence for fraud gathered from photo series without showing the actual photographs. Perhaps KM supporters or KM himself may criticize me for this line of action. In this case, I hasten to add that I'd love to publicize the entire photo series—ideally, both the original and the edited photographs. At present, however, KM has forbidden me to publish any photo that shows him in a sitting. I doubt that he has a legitimate entitlement to do so, but I prefer to play it safe, and have only included two photos of his in this article for which he had given me explicit approval for publication earlier. Nevertheless, I'll discuss another interesting photograph in the next section.

Two (almost) identical ectoplasm structures. Figure 7 displays a photo that I took at a sitting in Hanau on August 30, 2011. It shows a complex mass of alleged ectoplasm that had materialized at a sitting in a "direct" manner, i.e. it was not extruded from KM's mouth. It was attached to the outside of the closed cabinet curtains. When I screened KM's blog for dubious postings, I was struck when I came across a conspicuously similar mass that KM had allegedly extruded from his mouth in March 2011 (compare especially picture 4 in his posting from March 15, 2011).⁸ Interestingly, a close examination of both photographs showed that all characteristic features of the mass displayed on the photo from the blog can also be identified on my photograph, although the latter is somewhat blurred. In total, I counted 23 common characteristic features, but only one apparent difference that concerns the shape of the upper right corner of both structures. This difference may simply be due to different draping of this seemingly soft material. By contrast, all major and most peculiar features, including the large dark Y-shaped depression and the human face with its characteristic ectoplasm frame (see the white circle in Figure 7), are exactly in their place on both photos. Moreover, the overall shape and size of the two masses appear to be identical.

I am aware that several mediums produced similar structures with embedded faces during their sittings, for example Eva C. or Mary Marshal. However, I know of no supposedly genuine medium that has produced an (almost) exact replica of such a large and seemingly erratic conglomerate of ectoplasm months later, with all peculiar features being present again. This occurrence appears especially remarkable when considering that the structures were allegedly produced in two different ways: the first via extrusion from KM's mouth, the second via direct materialization. For sure,

Figure 7. Photograph taken by myself at a sitting on August 30, 2011. It shows a complex mass of alleged ectoplasm that is attached to the outside of the closed cabinet curtains.



HB would have pointed to this kind of unique occurrence in the history of physical mediumship if such a case had been genuine. It seems inconceivable that HB was not aware of the striking similarity, if not identity, of the two masses he and the Chemists generated. Personally, I think it is much more likely that KM had constructed and displayed an artificial ectoplasm mass in early 2011, and that he simply used it again a few months later in a different setting and context.

The extrusion of ectoplasm. Another peculiar aspect of KM's ectoplasm display concerns the extrusion of it via his mouth. On each occasion I saw KM extrude this white substance, he bent forward so that his mouth faced the floor, and he held his left hand tightly to his mouth (e.g., see the series of stills included in Braude 2014 in this issue). Allegedly, this strange gesture is supposed to help to keep KM's mouth open, and to facilitate the outflow of ectoplasm. Yet, the ectoplasm doesn't seem to flow out by itself during the extrusion. Rather, KM seems to pull it out with his right hand. Only when the extrusion is as good as finished does KM use both hands to manipulate the white veil. When I tried to extrude ectoplasm at home with my cobweb, I soon found out that I was only able to do so in the way that KM seems to do it. One needs to control the pulling on the packed material in the mouth with one hand, ideally with one finger,

because otherwise one runs the risk that the whole lump of ectoplasm will fall out of the mouth at once. The easiest way to prevent the sitters from seeing why the hand is held at the mouth is, of course, bending forward. Although this finding is no proof for fraud, it is bewildering that KM claims to produce genuine ectoplasm in precisely this way.

What happens inside the closed cabinet? When I controlled KM at the cabinet, I sometimes noticed that he moved inside it during the periods that are said to allow for the reinforcement of the psychokinetic force between the different PK phenomena. Several other sitters who controlled KM at the cabinet have noticed considerable activity inside the cabinet as well, and one may wonder why HB needs to putter around so much during the intervals between the phenomena. That something is going on inside the cabinet is also revealed by the first photo series from March 2011. After the last picture that shows a column rising from a large heap of ectoplasm on the floor (see above), there was, apparently, a period of 12 minutes spent in darkness. This break is followed by the picture series of the whitish-red light (see above), which is said to represent a pure essence of ectoplasm. Interestingly, the towel on the bucket inside the cabinet has evidently been manipulated, and the water bottle has changed its place during these 12 minutes. The bottle stood close to KM's left foot during the display of the column, and it has now moved to the right. It stands directly next to a heap of ectoplasm—a very delicate and inappropriate position, given that the ectoplasm is an extremely sensible substance (see Figure 3). The sitter at KM's left side doesn't remember having put the bottle there, and it would not be a very likely action, anyway, to put this bottle right in front of the ectoplasm. HB never fetches the bottle and drinks a bit on his own. He always asks the sitters next to him to pass him the bottle and to put it away again—but all this happens before the ectoplasm displays begin, not during the breaks in between, and it always happens when the red light is turned on, not in darkness. Nevertheless, it is clear that something was going on inside the cabinet during these 12 minutes. One can only speculate if KM permitted himself to have a mouthful of water on his own this time, and if he fumbled with the bucket to fetch the D'Lite Flight.

In any case, the continued presence of the ectoplasm is highly remarkable by itself. All sitters who have attended a sitting with KM are told how sensitive this substance is, and how susceptible to light it is. KM informs them that its ephemeral and short-lived existence suffers from the constant threat of being damaged or destroyed by even the slightest amounts of light that may hit it, and the ectoplasm was much more vulnerable in early 2011 than it is today. Yet, a considerable amount is still there after the 12 minute break, and it continues to exist during the display of the whitish-

red light—being fully exposed to the red light emitted by the floor lamp. According to my séance reports from late 2010 to April 2011, I considered at that time an uninterrupted display of ectoplasm that lasted for only 15 seconds as a comparably long exposition. This is confirmed by the Exif data of the two photo series. Only the rising column in April 2011 was displayed for a longer time span, namely for 24 seconds. Yet, the seemingly unattended ectoplasm between KM's feet existed unaffected for one and a half minutes in red light, albeit, admittedly, the cabinet curtains were briefly closed at one point (for 20 seconds at best). In any case, the sustained presence of the ectoplasm at this sitting appears highly suspicious and, just like the water bottle, out of place. Perhaps it was nothing but an accident in KM's performance. At least the second photo series from April 2011 shows that there was a similar break of 11 minutes before the whitish-red light was displayed, but that time the ectoplasm had vanished.

Artificial cobweb, part II. While I pursued the different lines of investigation described above, I also tried to verify the claim that KM had bought cobweb on the Internet. At one point, I found out that KM had ordered one kilogram of non-luminous cobweb, and 125 grams of luminous cobweb, to be shipped to his postal address in Hanau.⁹ Curiously, he ordered this material via eBay from somebody who had been a critical guest sitter at one of KM's séances earlier, and who knew the blog maintained by KM quite well. Needless to say, this person became alarmed by this order from KM, and he informed German parapsychologists about it. Later, I was shown the original transaction documents of two orders that KM had placed in October 2013 via eBay. Clearly, this buying of the cobweb contradicts KM's initial claim that he had never heard of such a substance, to say the least.

In recent communications with Stephen Braude, KM has even admitted that he bought artificial spider web. However, he claims that he bought it only to see what it looks like, and that he found that it is quite unlike the ectoplasm he produces. He tried to show these differences on a video that he sent to Braude (see Braude 2014 in this issue). Yet, the cobweb he showed on this video and that he bought in October 2013 (and that I bought in March 2014) looks identical to some of the pictures shown on his blog, and to some displays I have seen in person, including the one in Austria.¹⁰ In two emails to Braude (5/6/2014 and 5/7/2014), KM even claimed that the cobweb wouldn't stick to the cabinet curtains—but according to my own experience, one can press small and also large strands of my Halloween spider web to any curtain with a surface of ordinary cloth, and it will just stick there until one removes it again. The way it detaches from my curtains reminds me strongly of the way I have seen supposed ectoplasm detach

from KM's cabinet curtains. In addition, the cobweb brand KM showed in the video is not sold by the shop that he placed his order at in late 2013. Hence, one must assume that KM bought luminous spider web on at least two different occasions from two different stores.

Summing Up

In the preceding sections, I have described personal observations and findings derived from analyses of photographic material and other lines of investigation. It is obvious that the latter have confirmed my earlier personal observations. However, the crucial question is: Can all these findings be regarded as convincing evidence for fraud, or even as proof? Different people may have different answers to this question, but my personal opinion is this: There can be no doubt that KM has faked the whitish-red light with the D'Lite Flight or a similar device. The photo series alone constitute very strong evidence. The second series consists of photos that were taken in intervals of one to two seconds, and can almost be regarded as a series of stills from a video. KM's suspicious behavior and Jochen's reluctance to answer my query directly (see also Braude 2014 in this issue) add weight to the evidence provided by the photo series. In my opinion, the combination of these findings amounts to a quality of evidence that must be regarded as proof. The collected findings concerning the artificial cobweb, beginning with my observations in October 2012 in Basel, reach a similar level of significance. Acting on these central assumptions, all other findings including suspicious aspects of KM's behavior toward me contribute in a cumulative manner to forming a logical, coherent, and compelling argument for fraud. Personally, I think that KM's trance including the presence of HB must be faked when he used the D'Lite Flight, and that there is good reason now to wonder whether the trance is faked each time he produced ectoplasm. Or, should we rather assume that KM can produce genuine ectoplasm under favorable circumstances, and that he only resorts to fraud when he has difficulties maintaining his trance, then purposefully mimicking his genuine trance speech in a manner that is indistinguishable from the real HB? Although KM claims that he has total amnesia after awakening from trance, he might well practice imitating the real HB at home using the recordings of the sittings. In fact, imitating HB is very easy to accomplish. I maintain that I can speak just like HB without a problem, and several other men I know can do so as well. I leave it to the reader to decide whether KM might be able to induce a genuine deep trance state and to produce genuine ectoplasm on occasion, or if his trance is always faked. I will not withhold my personal opinion: I think it is more likely that the trance and HB are entirely faked at each sitting. Assuming this is true, it would have consequences for other phenomena

that I have not discussed in the preceding sections. For example, HB has allegedly spat out dozens of apports from KM's mouth at the end of cabinet sittings in red light. Supposing that KM is not in trance but fully conscious during these activities, and thus is most likely producing fraudulent apports, I now think it is very likely that the two apports he produced in Austria during our first table session also were produced in a fraudulent way (a crystal and a piece of copper, see Braude 2014 in this issue). Indeed, some inconsistencies in KM's descriptions of how he allegedly received or created these two apports support these concerns—especially as he related these descriptions in apparent states of waking consciousness.¹¹ The way he attracted attention to his mouth and hand may be nothing more than a trick to focus the concentration of the sitters on these body parts, and the apports might well have come from a different source.

Concerning the PK phenomena, it seems difficult (albeit not impossible) to find an explanation for them at present, especially when they are performed under 4L+J control that, as I have heard, also includes the control of KM's head at the same time. One may also wonder how KM can produce ectoplasm after strip searches such as the one performed in Austria (for ordinary sittings without controls, he might simply hide it under his clothes). Skeptical explanations must account for the fact that KM seems to use more than one kind of ectoplasm within the same sitting—some that look like chiffon, and some that look like (luminous) cobweb. Basically, there are two hypothetical scenarios. The first implies an accomplice who, apart from helping to produce the apport or PK phenomena (including those performed under 4L+J control), would simply pass this material to KM in the cabinet, and who takes it back again at the end. This would easily be feasible in cabinet sittings held without preceding strict controls.¹² The second is that KM hides it either in his stomach and/or in his rectum (see Braude 2014 in this issue). He would have plenty of preparation time during his obligatory seclusion in a private room before each cabinet sitting and before any strip search that was agreed upon. Yet, so far, KM has not been caught red-handed, and I abstain from pursuing speculations about how he might have faked which phenomenon.

Moreover, I admit that the considerations presented above might be wrong, or that KM might be a mixed medium who produces both genuine and faked phenomena. Yet, it is useless to continue speculating. Hence, I propose suggestions with a focus on practical implementation in the following. When Hans Bender walked on this planet in human flesh, he performed scientific investigations that included the search for evidence or proof regarding psychic phenomena. I am convinced that if he should indeed be KM's main trance control, he will eagerly strive to prove that

the phenomena produced by him are genuine and that my allegation of fraud is shamefully wrong. Hence, to advance the control conditions of the sittings and the controls themselves, KM, or HB, should adopt the following suggestions in future cabinet sittings. These suggestions don't interfere much with the usual procedure of these sittings, and, apart from the suggested developments of future phenomena, they could be implemented quite easily. Most of them don't even imply a noteworthy change in the presently applied standards of control during usual cabinet sittings.

- Abstain from inducing a "pre-trance" state alone in a private room prior to sittings. Stay in the company of others during the day prior to a sitting, just like other mediums do. Somebody who can enter a deep trance state with total amnesia in front of an audience several times a month for years should also be able to enter a shallow "pre-trance" state in supportive company with one or more persons.
- Remove the strips of tape on the inside of the cabinet curtains.
- Remove the empty bucket with the towel and the drinking bottles from the cabinet and place them behind the neighboring sitters.
- Remove the pencil and the strips of tape from the floor of the sitting room.
- Let all four limbs, but also the head and the back of KM be controlled during all PK phenomena.
- Develop the practice of showing PK phenomena in dim red light.
- Show the outflow of ectoplasm from the mouth. Don't bend forward, and keep the hands away from the mouth.
- Don't hide arms and hands when ectoplasm structures rise in red light. Show arms and hands.
- Develop the rising of the ectoplasm column outside the cabinet in red light.
- As I have heard, sitters are now allowed to have a very close look at the ectoplasm, and to touch it. This development fits perfectly with my list of suggestions, and it should be pursued. Let the sitters have a very close look at HB's hand or the rising column, and also the thread attached to them. Ideally, let the sitters touch these structures.
- Develop the practice of showing the disintegration of the ectoplasm in red light.
- Wear tiny phosphorescent stickers or straps on the séance clothes.

In case tighter controls such as those applied in Austria are desired, I'd recommend further control methods that were traditionally applied in physical mediumship, such as drinking a heavily stained liquid before the

sitting, or wearing a one-piece suit. However, one of my favorite methods of control is letting the medium wear sealed boxing gloves. In this way, a medium retains full mobility; he or she is only deprived of using the fingers. This method was applied with apport medium Charles Bailey, who was additionally locked inside a cage. Still, it is reported that he had produced two apports (X, 1904). Moreover, as we have entered the age of highly sensitive electronic instruments and digital recording devices, it is desirable to introduce the use of some of them—for example, thermographic cameras or similar devices.

Concluding Remarks

That KM might produce fraudulent phenomena has been discussed for some time in the parapsychological community. For example, Peter Mulacz became suspicious after certain observations during his first sitting in Hanau in 2010, and Eberhard Bauer has likewise been suspicious of KM's claims for some time, based solely on KM's presentations on his blog and due to his personal experiences with paranormal claimants over many years. H had even left the circle in April 2011 because he concluded that KM must be a fake, and the news spread among the spiritualistic community. I was well aware of all this, and also stayed in contact with H after he quit. Nevertheless, nobody ever came forward with a sound and consistent hypotheses about how KM faked certain phenomena, not even H. Still, most of these allegations or suspicious observations could likewise be explained as innocuous or "normal" in terms of typical proceedings in physical mediumship. Moreover, due to my personal experience with the circle, I considered (and I still do) most of the more detailed allegations of fraud too simplistic, given that the PK phenomena are performed under 4L+J control (e.g., that Julia helped KM to fake the phenomena, that KM simply moved the greenish lights, etc., with sticks in his hands, that KM used a drinking bottle to introduce props into the séance room, that he hid something in the cabinet hoop, or that the tape on the floor was a marker for his feet when he moved out of the cabinet to perform PK phenomena). Rather, I kept being intrigued mainly by the PK phenomena, especially the sittings that KM held alone, or in many different foreign countries in the company of H or Julia alone.

Hence, I visited Hanau in irregular intervals, and the phenomena of the cabinet sittings seemed to progress slowly but steadily, and in a manner that perfectly matched the traditional reports of the development of circles for physical mediumship. In addition, Jochen kept me informed about all kinds of interesting developments, and he frequently explained to me why many of them seemed genuine to him. But, after all, I lived too far away from

Hanau to stay in close contact with its members. As soon as I was allowed to control KM at the cabinet, however, it didn't take long until I noticed that something very fishy was going on inside it. Yet, as it happened, I was not able to control KM at the cabinet again after October 2012 in Basel. Still, looking back, this was the crucial turning point in my dealings with the FEG. Now, it seems clear that in one way or the other, I would have caught KM cheating sooner or later. He knew it, and curiously it was his attempt to save himself by not letting me control him again that finally led to the exposure of his fraud. Yet, I was not yet prepared to break with KM after my observations in October 2012. I decided that I would not terminate my relationship with the FEG until I had obtained either 1) a well-documented case of controlled macro-PK, or 2) well documented evidence for fraud. It was a pity that I didn't know of the photo series back in 2012. At present, I should add, I have no firm opinion about who or how many of the other FEG sitters are involved in faking, or if they are at all.

Finally, I'd like to share the main lessons I learned from this case. They are neither new nor original, but it might still be important for somebody who is involved in investigating mediums, especially physical mediums, to be reminded of them from time to time.

- 1) Never trust a medium—no matter how open, friendly, and kind she or he appears to be.
- 2) Still, if you seem to become friends with a medium you want to investigate, and with other circle members, be aware that this is a two-edged sword. On one hand, you might become blind to critical aspects of the supposed mediumship, but on the other hand there is no better way to obtain valuable detail information from “behind the curtain.”

Notes

¹ This list of selected publications out of a vast but largely unknown field of literature introduces serious attempts to investigate the phenomena of physical mediumship. Although many treatises may be difficult to obtain, others are readily available online via Internet search engines. Not surprisingly, many of these studies have been criticized, and these criticisms were criticized in return. I refrain from engaging in these discussions (see, e.g., Braude 1997, Schrenck-Notzing 1926). A must-read and one of the best introductions into the problems associated with performing investigations of physical mediums is Anita Gregory's (1985) book about Austrian medium Rudi Schneider.

- ² Some readers might be interested in how KM became involved in holding sittings in Basel. He first met Lucius Werthmüller, Sabin Sütterlin, and other members of the *Basel Psi-Association* at a séance with physical medium Stuart Alexander in 2008. A friendly contact developed, and KM invited Lucius and Sabin to visit a sitting of the FEG in Hanau in January 2009. Being impressed by what they experienced, Lucius and Sabin continued to visit sittings with the FEG. After their sixth sitting in August 2010, they invited KM to hold sittings in Basel in 2011, and KM agreed (Sütterlin 2011, 2013). The sitters who attend the sittings in Basel are usually members or friends of the *Basel Psi-Association*, and have visited other events organized by its team before.
- ³ The question of whether the trance personality Hans Bender is indeed the deceased professor or a form of dissociative sub-personality of KM has so far not been explicitly addressed by members of the FEG or by investigators, and this question is regarded as of subordinate importance. KM is well aware that HB might not be the deceased professor after all, but for the sake of obtaining the best phenomena possible, HB is always treated as the personality he claims to be. No examinations or tests are performed that might result in feelings of distrust between HB and the sitters. For various reasons, however, I have personally regarded HB as a dissociative construct of KM.
- ⁴ According to KM, he can only *receive* suggestions or instructions from HB in states of meditation or trance. He states that he cannot initiate conscious discussions with HB about the possibility of conducting specific experiments, or, e.g., to film the phenomena of the sittings in good light. Apparently, KM can only be concerned with such questions, and he will sooner or later receive a reply to his concerns from HB in meditation. For example, KM declares that he would like to document the phenomena of the FEG in good light, but that HB is not willing to allow this at present.
- ⁵ Illustrative pictures of the four-limb control (4LC) can be seen in the blog postings of August 20, 2010, and March 27, 2013. It can be asserted that the foot is not secretly removed from the shoe to produce phenomena in the dark because the controller of a given foot remains also in contact with the same leg's thigh during the phenomena.
- ⁶ Examples of such handwritten texts include a message from the discoverer of LSD, Albert Hofmann (1906–2008), to Lucius Werthmüller (see the posting of January 29, 2009, on KM's blog), a message from former physical medium Einer Nielsen (1894–1965) to a guest sitter (see the posting of December 10, 2010), and a message from Swiss psychiatrist and parapsychologist Hans Naegeli-Osjord (1909–1997) to KM (see the

postings of August 11 and 31, 2011). I was not present at the arrival of such kinds of apports. Although they are intriguing, it is obvious that they were not received under controlled conditions.

- ⁷ There are many video clips on the Internet that illustrate the close resemblance, if not identity, of the whitish-red light displayed by KM, and the D'Lite Flight in action. For examples, see

<https://www.youtube.com/watch?v=84B2QWlqD0U>

<https://www.youtube.com/watch?v=30Le62OMR6c>

https://www.youtube.com/watch?v=7VQZI_DOfw

Like the “spirit light” of KM, the D'Lite Flight can also enter and leave the mouth of the performer. For the link where KM described how the red light appeared in March 2013 in Basel (including three photographs), see <http://felixcircle.blogspot.de/2013/03/special-seances-in-switzerland-feg.html>

- ⁸ For the precise link of this posting, see

<http://felixcircle.blogspot.de/2011/03/upcoming-soon-bizarreness-of-western.html>

- ⁹ The package quantity of one kilogram appears to be the largest one can order on the Internet from Germany via ordinary distribution pathways. Offered package quantities of artificial spider web begin with amounts of 15 to 20 grams.

- ¹⁰ Both non-luminous and luminous cobweb are a fascinating and cheap material, and I can thoroughly commend buying a few different kinds of it. In case one likes to experiment a little and to compare its appearance with some of KM's ectoplasm displays, the following links can be recommended most:

<http://felixcircle.blogspot.de/2013/12/study-from-filmed-ectoplasm-2013.html>

<http://felixcircle.blogspot.de/2013/08/photographer-shannon-taggart-shoots.html>

<http://felixcircle.blogspot.de/2012/02/survival-evidence-ectoplasm-strikingly.html>

- ¹¹ Regarding the crystal apport, KM stated afterward that he felt the taste of blood in his mouth, and that during the apport, he had the feeling that the crystal glided down into his mouth through a gap in his palate. He would still feel a depression in his palate that had never in his life been there before. After the sitting, however, he only reluctantly allowed me to inspect the interior of his mouth and only after I insisted a number of times that it would be important to document this unusual concomitant phenomenon of his mediumship. Indeed, I saw a small oblong irregular depression in the middle of his palate along the central sinus that links the two bone plates. It was about 2 cm long and 1 mm wide. Yet, this depression didn't look like a fresh wound, and I couldn't see traces of blood. When I met KM again at a conference in October 2013, I asked him if he would allow me to inspect the potential healing process of this gap. He refused. When I met him again later that day, I asked him again, and

he refused again. Only when I explained to him on a third occasion that it would be important for me and my documentation of his mediumship to inspect the development of this gap, and that it would not be a big deal to simply open one's mouth, did he permit a brief look into it. The small gap was still there. Judging on the curiously reluctant behavior of KM and the continued presence of the gap in his palate, I can well imagine that the gap had always been there, that it will always be there, and that it had absolutely nothing to do with the crystal apport. As for the copper apport: The tenability of KM's claim that he had "materialized" the strange-looking piece of copper out of thin air suffered considerably when I bought a similar piece of copper in Salzburg two days later. Braude (in this issue) has described how this affected the mood of KM. In fact, all of us agreed that the received copper nugget was more likely to be an "ordinary" apport that had been transported to our farmhouse from somewhere else, rather than constituting a *de novo* creation as stated by KM. Not only was the overall appearance of the two pieces of copper very similar, but in addition, the surface of the supposed materialization looked older, dirtier, and duller than the surface of the new copper nugget I bought in Salzburg. In retrospect, the inconsistencies in the descriptions about how KM received the two apports evoke my impression that their accompanying information was designed to enhance the effect that the two apports were to make on KM's audience.

¹² Perhaps it was such an accomplice who accidentally pushed the red light lamp from its table at the beginning of the sitting in Basel in October 2012 while KM continued to breathe audibly inside the cabinet. The history of physical mediumship contains numerous cases in which confederates helped a fraudulent medium. One of the most infamous examples is represented by the affair around the Hungarian pseudo-medium Ladislaus Laszlo (Schrenck-Notzing 1924b). While the Hungarian chief investigator relied on supposed friends and research assistants, they turned out to be confederates of Laszlo. In particular, one of them prepared ostensible ectoplasm together with the medium, and helped him also in other ways (e.g., by introducing alleged apports into the séance room). Yet, Laszlo also smuggled props and supposed ectoplasm into the seance room that were hidden in his own clothes or in his rectum. In the seance room, he entered a faked trance state in which a fictitious operator communicated. He produced a variety of phenomena that included ostensibly paranormal lights of greenish colour, ectoplasmatic handforms, and also ectoplasm that contained faces. Laszlo used threads and thin wires to move the supposed ectoplasm (for a brief overview on the case, see KM's blog <http://felixcircle.blogspot.de/2009/05/laszlo-scandal-german-famous-researcher.html>)

Postscript

As it seems, KM continues to delete postings from his blog that contain photographs and contents that might be regarded as a support of my claims of fraud by their readers. For example, he has just recently deleted the posting from March 27, 2013, that I have referred to repeatedly in this paper's section about the whitish-red light as well as in footnotes 5 (photographs illustrating the body controls exerted during PK-phenomena) and 7 (the use of the D'Lite Flight-like device during a sitting in Basel in March 2013). Luckily, this posting is preserved in an Internet archive beyond the control of KM; scroll down to read the second posting on <https://web.archive.org/web/20130414135033/http://felixcircle.blogspot.de>. Actually, it seems appropriate for me to now add a few comments to this posting and the three embedded photographs showing the whitish-red light in action.

These three photos were not taken in 2010 as stated by KM. They belong to the second photo series discussed in this paper and were taken on April 15, 2011. These pictures were, among others, also included in the posting about the "spectacular spirit lights" of August 2, 2011, that KM deleted from his blog in early April 2014. The three photographs were taken with a shutter speed of 0.8 seconds at 6400 ISO. The first two pictures show the light moving in dim red light, the curtains held open by neighboring sitters. A part of KM's left hand is faintly visible above his thigh, whereas the right hand seems to be completely hidden in the shadow of his body. With these pictures, one can easily reconstruct how I have edited dark original photographs like these to enhance the visibility of hidden details. Click on the photos in the blog to show them in their enlarged versions, and copy these into Photoshop. After adding "Shadow" with the "Shadow/Highlight" function of "Adjustments," the entire picture becomes much brighter and richer in details. One can even faintly see the front of KM's right hand above his right thigh at the side of his body. These two pictures don't show significant details after this editing, but many others of this photo series do—especially the pictures in which KM's right hand becomes fully visible, and when many subsequent pictures are examined one after the other.

According to the preserved blog posting of KM, the third photograph shows how the light "danced around in front of the closed curtains." Yet, note the two ends of the trace created by the moving light on the left side. They are in perfect alignment with the right side of the lowest curtain drape, which (this is evident on other pictures of this series) represents the edge of the right cabinet curtain (seen from KM's perspective). It is obvious that KM simply stuck the LED-device through the gap between the curtains, and let the LED dangle in front of the left curtain. Moreover, the elongate reflection of the whitish-red light on the floor doesn't represent the distance

of the light from the curtains, as KM asserted in the posting from August 02, 2011. Rather, according to trials that I have re-enacted with a light source above a glossy floor surface in the dark, such reflections appear at a distance from their source in relation to the position of the observer, and, in this case, also the camera. Similarly, the sun's reflection on a plain water surface in the evening doesn't tell us that the sun is located vertically above its reflection. Evidently, the reflection is closer to the observer than the light source causing it.

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References

- Anonymous (1882). *Confessions of a Medium*. London: Griffith and Farran.
- Abbott, D. P. (1916). *Behind the Scenes with Mediums*. Chicago, IL: Open Court.
- Batcheldor, K. J. (1966). Report on a case of table levitation and associated phenomena. *Journal of the Society for Psychical Research*, 43, 339–356.
- Batcheldor, K. J. (1979). PK in sitter groups. *Psychoenergetic Systems*, 3, 77–93.
- Batcheldor, K. J. (1984). Contributions to the theory of PK induction from sitter-groups. *Journal of the American Society for Psychical Research*, 78, 105–122.
- Blacher, C. (1926). Ein unbezweifelbares Apporterlebnis. *Zeitschrift für Parapsychologie*, 1, 138–142.
- Blacher, C. (1931). Ein Beitrag zur Untersuchung von Ektoplasma. *Zeitschrift für Parapsychologie*, 6, 461–464.
- Blacher, C. (1931–1932). Apport-Beobachtungen. *Zeitschrift für Metapsychische Forschung*, 2, 201–206, 239–243, 271–274; 3, 181–188, 254–259, 352.
- Blacher, C. (1933). *Apportstudien*. Leipzig: Mutze.
- Bottazzi, P. (1907). The unexplained regions of human biology. Observations and experiments with Eusapia Palladino. *Annals of Psychological Science*, 6, 149–156, 260–290, 377–422.
- Bozzano, E. (1930). *Dei fenomeni di "apporto"*. Rome: Luce e ombra.
- Braude, S. E. (1997). *The Limits of Influence*. Lanham, MD: University Press of America.
- Braude, S. E. (2014). Investigations of the Felix Experimental Group: 2010–2013. *Journal of Scientific Exploration*, 28(2), 285–343.
- Brookes-Smith, C. (1973). Data-tape-recorded experimental PK Phenomena. *Journal of the Society for Psychical Research*, 47, 69–89.
- Brookes-Smith, C. (1975). Paranormal electrical conductance phenomena. *Journal of the Society for Psychical Research*, 48, 73–86.
- Button, W. H. (1932). The Margery mediumship. Demonstration of matter through matter. *Journal of the American Society for Psychical Research*, 26, 298–323.
- Carrington, H. (1909). *Eusapia and Her Phenomena*. London: Werner Laurie.
- Carrington, H. (1920). *The Physical Phenomena of Spiritualism*. New York, NY: Dodd, Mead.

- Chengery Pap, E. (1938). *Uj latóhatárok felé*. Budapest: Attila.
- Courtier, J. (1908). *Documents sur Eusapia Palladino*. Paris: Institut Général Psychologique.
- Crawford, W. J. (1919). *The Reality of Psychic Phenomena*. London: Watkins.
- Crawford, W. J. (1921). *The Psychic Structures at the Goligher Circle*. New York, NY: Dutton.
- Crookes, W. (1874). *Researches in the Phenomena of Spiritualism*. London: Burns.
- De Boni, G. (1967). *L'uomo alla conquista dell'anima*. Milan: Armenia Editore.
- Edwards, H. (1946). *The mediumship of Jack Webber*. London: Rider.
- Gasparin, A. de (1857). *Turning tables* (2 volumes). New York, NY: Kiggings & Kellogg.
- Gaunt, P. J. (2013). Ronald Edwin Cockersell. Fraudulent medium—genuine psychic? *Psypioneer*, 9, 201–224.
- Geley, G. (1927). *Clairvoyance and materialisation*. London: Fisher Unwin.
- Gerloff, H. (1955). *Die Phantome von Kopenhagen*. Munich: Dr. Gerlach'sche Kommission-sbuchhandlung.
- Gerloff, H. (1958). *Die Phantome von Kopenhagen. Ein Bilderbuch*. Büdingen-Gettenbach: Welt und Wissen.
- Gerloff, H. (1960). *Das Medium Carlos Mirabelli*. Tittmoning: Walter Pustet.
- Gissurarson, L. R., & Haraldsson, E. (1989). The Icelandic physical medium Indridi Indridason. *Proceedings of the Society for Psychical Research*, 57, 53–148.
- Giuditta, A. (2010). The 1907 psychokinetic experiments of professor Filippo Bottazzi. *Journal of Scientific Exploration*, 24, 495–507.
- Gregory, A. (1985). *The strange case of Rudi Schneider*. Metuchen, NJ & London: Scarecrow.
- Grunewald, F. (1920). *Physikalisch-mediumistische Untersuchungen*. Pfullingen: Baum.
- Hamilton, T. G. (1942). *Intention and Survival*. Toronto: Macmillan.
- Haraldsson, E. (2011). A Perfect Case? Emil Jensen in the mediumship of Indridi Indridason. The fire in Copenhagen on November 24th 1905 and the discovery of Jensen's identity. *Proceedings of the Society for Psychical Research*, 59, 195–223.
- Haraldsson, E. (2012). Further facets of Indridi Indridason's mediumship; including 'transcendental' music, direct speech, xenoglossy and light phenomena. *Journal of the Society for Psychical Research*, 76, 129–149.
- Haraldsson, E. (2013). *Modern Miracles*. Guildford: White Crow.
- Hasted, J. (1981). *The Metal Benders*. London: Routledge & Kegan Paul.
- Keen, M., Ellison, A., & Fontana, D. (1999). The Scole Report. *Proceedings of the Society for Psychical Research*, 58, 149–392.
- Keene, M. L. (1976). *The Psychic Mafia*. New York, NY: St. Martin's Press.
- Kindborg, E. (1930). Ein überwältigendes Apportphänomen. *Zeitschrift für Parapsychologie*, 5, 177–189.
- Maxwell, J. (1905). *Metapsychical Phenomena: Methods and Observations*. New York, NY: Putnam's Sons; London: Duckworth.
- McKenzie, B. (1929). An 'Apport' medium—Mr. T. Lynn. *Psychic Science*, 8, 129–137.
- McKenzie, J. H. (1922). Report of Miss Ada Besinnet's mediumship. *Psychic Science*, 1, 19–78.
- McKenzie, J. H. (1923). The remarkable phenomena of Frau Silbert. *Psychic Science*, 2, 8–44.
- Moore-Davis, S. (1996). *Seance*. Washington, DC: Kaufman.
- Morselli, E. (1908). *Psicologia e "spiritismo"* (2 volumes). Turin: Bocca.
- Ochorowicz, J. (1909). Un nouveau phénomène médiumnique. *Annales des Sciences Psychiques*, 19, 1–10, 45–55, 65–77, 97–106, 129–133.
- Osty, E., & Osty, M. (1931–1932). Les pouvoirs inconnus de l'esprit sur la matière. *Revue Métapsychique*, 11, 393–428; 12, 1–59, 81–122.
- Owen I. M., & Sparrow, M. (1976). *Conjuring up Philip*. New York, NY: Harper & Row.
- Paul, M. A., Fantl, K., Gardner, L. B., & Puharich, H. K. (1963). A study of telergic phenomena. *Parapsychology*, 5, 129–140, 179–195.
- Podmore, F. (1902). *Modern Spiritualism. A History and a Criticism* (2 volumes). London: Methuen.

- Reichenbach, K. von (1867). *Die odische Lohe und einige Bewegungserscheinungen als neuentdeckte Formen des odischen Principis in der Natur*. Vienna: Braumüller.
- Richards, T. (1982). *SORRAT: A history of the Neihardt psychokinesis experiments, 1961–1981*. Metuchen, NJ/London: Scarecrow.
- Schrenck-Notzing, A. von (1920). *Physikalische Phänomene des Mediumismus*. Munich: Reinhardt.
- Schrenck-Notzing, A. von (1923). *Materialisationsphänomene* (second enlarged edition). Munich: Reinhardt.
- Schrenck-Notzing, A. von (1924a). *Experimente der Fernbewegung*. Stuttgart: Union Deutsche Verlagsgesellschaft.
- Schrenck-Notzing, A. von (1924b). Der Betrug des Mediums Ladislaus Laszlo. *Psychische Studien*, 51, 129–160.
- Schrenck-Notzing, A. von (Editor) (1926). *Die physikalischen Phänomene der grossen Medien*. Stuttgart: Union Deutsche Verlagsgesellschaft.
- Schrenck-Notzing, A. von (1933). *Die Phänomene des Mediums Rudi Schneider*. Berlin: Walter de Gruyter.
- Schwab, F. (1923). *Teleplasma und Telekinese*. Berlin: Pyramidenverlag Dr. Schwarz.
- Schwab, F. (1931). Zur Entlarvung des Mediums Stanislava P. *Zeitschrift für Parapsychologie*, 6, 365–373.
- Simsa, J. (1931). Spontane Spukphänomene in Prag-Branik, 1930–31, in experimentelle überführt. *Zeitschrift für Parapsychologie*, 6, 527–539, 565–574.
- Simsa, J. (1934). Interessante Beobachtungen im physikalischen Mediumismus mit dem Prager Medium Wolf. *Zeitschrift für Metapsychische Forschung*, 5, 58–65, 106–110, 137–143.
- Sütterlin, S. (2011). Séance mit dem Felix Circle im August 2010. *Psi-Info*, 21, 23–29, 45.
- Sütterlin, S. (2013). Physikalische Medialität mit Kai Mügge. *Psi-Info*, 29, 74–79.
- Tischner, R. (1954). Das Lichtmedium Maria Silbert. *Neue Wissenschaft*, 4, 103–111, 162–169.
- X (1904). *Rigid Tests of the Occult*. Melbourne: Stephens. [X is a pseudonym for Charles MacCarthy.]
- Zöllner, J. K. F. (1922). *Vierte Dimension und Okkultismus* (Edited by R. Tischner). Leipzig: Mutze.

RESEARCH ARTICLE

Investigations of the Felix Experimental Group: 2010–2013

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Abstract—This paper chronicles my introduction to and subsequent investigation of the Felix Experimental Group (FEG) and its exhibitions of classical physical mediumship. It's been nearly a century since investigators have had the opportunity to carefully study standard spiritistic phenomena, including the extruding of ectoplasm, and the FEG is the only current physical mediumistic circle permitting any serious controls. The paper details a progressively stringent, personally supervised series of séances, culminating in some well-controlled experiments with video documentation in a secure and private location belonging to one of the investigators. Regrettably, recent indications of fraud (explored also by Michael Nahm in this issue) have tarnished the case as a whole. However, it remains unclear how extensive the fraud has been. Accordingly, this paper evaluates the arguments both for and against the paranormality of the phenomena displayed under the author's supervision.

Background

I first learned about the Felix Experimental Group (FEG) and its medium, Kai Mügge, early in 2008, from Jochen Söderling (pseudonym), the cardiologist who eventually became the group's circle leader. Presumably because of Jochen, and also my reputation (such as it was) as a reasonably knowledgeable proponent of the best macro-PK cases, I soon thereafter found myself included among the email recipients of FEG updates. But as far as I can now reconstruct, my first direct contact with Kai occurred in the Fall of 2009, when we arranged for the first of a series of get-acquainted Skype video calls. By that time I had already been planning with my friend and colleague Peter Mulacz to apply for funding to visit the FEG, and our email discussions had begun with Jochen to make that visit happen.

At the end of March 2010, Peter and I were able to travel to Kai's hometown of Hanau, Germany, for an introductory visit with the members of the FEG. We were treated to one cabinet sitting and one table séance, all

under casual controls. Prior to our visit, we had discussed with both Kai and Jochen the importance of studying and documenting the Felix Circle phenomena under good conditions of control. Presumably because both men knew and appreciated much of the classic mediumistic literature, they expressed their desire to do the same. At the same time, however, both Kai and Jochen were eager for us to see, in the most impressive forms possible, the sorts of phenomena they'd been obtaining during their sittings. Based on their own experience and also their knowledge of the literature, they said they were concerned that controls (including the use of two hi-definition infrared camcorders we'd purchased) would inhibit (if not snuff out) the manifestations they wanted to share with us. They were also concerned, based again on their own experience with previous visitors to the group, that the delicate group dynamics would inevitably be altered merely by having strangers—especially vigilant and critical ones—sit in. And they were concerned that those dynamics might easily be upset if controls were imposed too early. We understood and respected this position. In fact, we felt it was supported by the entire history of mediumistic investigations, as well as oft-cited and relatively recent studies of the psychodynamics of PK sitter groups (e.g., Barham 1988, Batchelder 1984, Isaacs 1984).

Accordingly, we agreed that the essential first step to a thorough and proper study of the FEG phenomena would be (a) to socialize with the group members (or at least as many of them as we could meet prior to the first séance), and (b) see for ourselves what a typical séance is like. We said we hoped we could gradually introduce and tighten controls, and both Kai and Jochen said they wanted this as well. But they cautioned again that this might reduce the magnitude of the phenomena and possibly eliminate them altogether. Kai also said that the speed with which we'd be able to introduce controls was not entirely up to the group members. It was also dictated by Kai's control personality, who ostensibly possessed him during cabinet sittings, and who identified himself as the late parapsychologist Hans Bender. The Hans Bender persona (hereafter simply HB) claims to be aided in these matters by a team of postmortem assistants, identified merely as the "Chemists."

During our introductory cabinet séance, the group experienced loud, abundant, and rapid knocking sounds around the walls and ceiling of the room, as well as anomalous object movements of various sorts. The latter included a floating paper "trumpet" with a luminescent strip brought within inches of each sitter's face. Later, during brief periods of red light alternating with periods of darkness, we saw an ostensibly materialized hand and arm hanging from the medium's mouth, and then a moving, large, and not especially lifelike hand moving on the medium's left shoulder while

the medium's own hands remained visible and motionless in front of him. At the table séance, we were able to use our IR camcorders for part of the time, and we recorded quite vigorous movements of the table. When the cameras were turned off, we experienced what seemed to be a complete table levitation.

Because most of the phenomena occurred in darkness with no apparent controls, neither Peter nor I could attest to their legitimacy. In fact, Peter was suspicious of the cabinet séance from the beginning. He especially distrusted Kai's injunction against sitters sticking their arms or legs into the area where the object movements were occurring. Nevertheless, we agreed that a controlled follow-up investigation was warranted, and Kai and Jochen concurred. The exigencies of my retirement from the University of Maryland Baltimore County and subsequent move from Maryland delayed my next visit until August 2012. This time I participated in two table séances and one cabinet sitting, assisted on two of those occasions by documentary filmmaker Robert Narholz (who was highlighting the FEG for his forthcoming film, *Finding PK*). By this time both Robert and I had been embraced as friendly and trustworthy observers by the FEG, and we were optimistic that we'd be able to impose reasonable controls that nevertheless respected the idiosyncratic psychology of the medium.

But before proceeding with my account of subsequent séances with the FEG, one crucial matter must be addressed. Because the circle leader, Jochen, prefers (wisely, I'd say) to remain anonymous in order not to jeopardize his reputation as a cardiologist, and because Jochen can too easily and glibly become a target for suspicion so long as nothing is known about him, I believe I should say something about my experiences with and impressions of him as a person.

The objective facts about Jochen, so far as they don't reveal his identity, are these. Although he's now only in his late 30s, Jochen is already a distinguished cardiac surgeon and medical researcher who is widely published and who presents original research at major medical conferences throughout Europe and also in the US. He's affiliated with several hospitals and works at one of the world's most distinguished research centers in Germany.

I was first introduced to Jochen in January 2007. He wrote me an email saying he'd read my book *Immortal Remains* (Braude 2003), and that he was eager to engage me in philosophical discussions about the implications of survival data. Because Jochen had begun to realize that certain data and arguments posed serious challenges to the medical science he'd taken for granted, our discussions soon turned into a protracted dialogue about memory trace theory, psychophysical reductionism generally, and the

viability and significance of the various sorts of anti-mechanistic arguments I've advanced over the years in my papers and books. It became clear very quickly that Jochen was both thoughtful and highly intelligent, and also a voracious reader. In short order he read nearly everything I'd ever written, and he also began a careful study of the parapsychological literature and the work of other philosophers of science and mind. I could easily understand how Jochen had risen to prominence as a research scientist so early in his life. He clearly understood a wide range of technically demanding works, and his questions were invariably probing and sophisticated. And it seemed as though he never slept.

Soon after our discussions began, Jochen raised the topic of macro-PK and the sorts of dramatic cases I covered in *The Limits of Influence* (Braude 1997). He'd already devoured that book as well as much of the primary source material and many important secondary works. So we were able to engage immediately in detailed, penetrating, and wide-ranging discussions about the possibility of fraud in the strongest cases of physical mediumship, as well as in cases documented with less thoroughness and rigor than those of (say) D. D. Home, Eusapia Palladino, and Rudi Schneider.

I met Jochen face-to-face for the first time in February 2008. I was speaking at a conference in Dortmund, Germany, and Jochen traveled to see me. He grilled me as usual about the difficulties of reconciling my anti-mechanistic arguments with the prevailing assumptions of medical science specifically and the physical sciences generally. Jochen also informed me that he'd recently joined a PK sitter group near Frankfurt. He told me he had seen some impressive phenomena, and he was clearly wrestling with the issue of how best to explain them. In the months that followed, I received many email inquiries from Jochen about the scope and adequacy of the skeptical arguments he'd been reading (with his customary appetite), and we also reviewed some of the better-documented physical mediumship cases from the heyday of Spiritualism. It was obvious that Jochen was conflicted about the phenomena (he used to write me that they really "kicked my brain") and that he was determined to be as thorough and fair as possible in evaluating them. I'm convinced that Jochen applied his usual scholarly standards to his study of the FEG phenomena, and now, after six years of immersing himself first-hand in the phenomena and continuing to study both the primary and secondary literature, I'd easily rate Jochen as being one of the world's most informed people with respect to the history of macro-PK and many of the relevant issues concerning the possibility of fraud. During this several-year period, Jochen also reached out to many other psi researchers, and I'm confident that they would confirm my impression of him as extremely bright, conscientious, knowledgeable, and thorough.

Hanau, Germany, Summer 2012

Kai's (and the HB persona's) views about the nature of mediumship and the conditions conducive to its demonstration reflect Kai's considerable familiarity with the literature on the subject. Moreover, Kai says that because he's not as natural or prodigious a mediumistic talent as Home, Palladino, and some others (indeed, he reports that he spent many years working diligently to develop his abilities), he's more likely than these virtuosi to be subject to various constraints—in particular, the negative influence of unsympathetic observers and the inhibiting effects of infrared and other light sources.

So although Kai agreed with me about the advisability of infrared recording, he said he doubted that HB would allow it. Nevertheless, he was very open to other controls, including a strip search and my intrusive hands-on control of him during the cabinet séance, even though he said that these measures would at least somewhat diminish the magnitude of the effects. Fortunately, he seemed to grasp the reasonable point that it was better to document modest phenomena under good conditions of control than dramatic phenomena under poor conditions.

Since the time of my previous visit to the FEG, there had been a notable addition to the regular sitters of the FEG—Kai's wife Julia. The two met in 2011 and married in May 2012. Julia now divides Hanau séance responsibilities with Jochen. On most occasions when both are present, she operates the red light which is used occasionally to illuminate Kai or the room, and which is connected to a rheostat. During cabinet sittings, she typically sits to Kai's right, sometimes controlling him but invariably operating the red lamp according to instructions dictated by HB. Jochen still performs the duty of circle leader and also takes charge of operating the CD player, used for providing inspirational and energy-inducing music into the proceedings.

I'll now describe highlights of the three sittings conducted during this visit to Hanau. In the absence of blow-by-blow video, the details are obviously crucial, because they help convey both the flavor of the occasions and the difficulties involved in documenting them.

TABLE SÉANCE 08-22-2012

Attendees in the order of seating, clockwise
 Kai Mügge (medium)
 Martine (a neighbor and regular sitter)
 Steffy Wolpert (Kai's sister-in-law and regular sitter)
 Stephen Braude
 Robert Narholz (film-maker, musician)
 Jochen S. (circle leader, music operator)
 Elke Mügge (mother of medium)

As is usually the case in Hanau, the séance was conducted in the cellar/bomb shelter of the Mügge house (described in detail by Nahm, this issue), and it began around 8 p.m. Also as usual, it was divided into two phases: the first in total darkness, and the second under the occasional illumination of the small red lamp (controlled this time by Steffy). At its brightest, the sitters and their hands were clearly visible, and even at a lower setting one could discern those details after adjusting to the light.

Beforehand, Kai expressed his preference for eschewing video recording, preferring (he said) to work on building a good dynamic with Robert and me for the next séance or two, and hopefully for increasing the chance of getting the dramatic levitations reported on other occasions (when, reportedly, the table levitated very high and for long periods). Naturally, I was disappointed at being denied the opportunity to video the proceedings. I was under the impression that careful documentation was the whole point of my returning to Hanau, and I thought that my previous visit and Robert's more recent visits to Hanau had already established a good rapport with Kai and other regular circle members. (Indeed, Kai and his family greeted me more warmly and with better communication than I experience with my own family.) Nevertheless, I accepted Kai's preference, especially since there was still the prospect of using video in a subsequent sitting.

The table used was a dark, circular plastic table 35.5 inches in diameter. Before the séance began, I tried lifting the table myself in order to simulate a levitation. I found that, even though the table was quite light, this was difficult to do, and that it was possible only by extending my arms a considerable distance under the table top. But even then, I couldn't reproduce the sort of smooth rise I'd experienced on my previous trip to Hanau, and it was extremely difficult to prevent the table from tilting to one side. I was also unable to raise it level off the ground by hooking my thumbs under the table top or by placing my foot under a table leg. Jochen and others have also reported being unable to simulate a table levitation by hooking the thumbs under the table top. Thus, so long as all fingers are visible on the table, and so long as at least all but one of the sitters' feet are visible under the table, it seems unlikely that fraud best explains a levitation of at least several seconds duration and in which the table top remains parallel to the ground—at least in the absence of some apparatus (e.g., pins in the table top) which prior inspection of the room and table failed to uncover.¹

The sitting began with an invocation by Kai to the spirits to grace us with their healing power and with demonstrations of their power and presence through the movement of the table. To the accompaniment of some shamanic chanting music, the table began to move within a few minutes, often quite vigorously.

Since the aim of the sitting was to get some clear levitations, and since the mere movements themselves are considerably less interesting if not documented on video, I'll discuss just the levitations.

There were five levitations in all, the first two in total darkness and the others in varying degrees of red light. We were all seated during these phenomena. Robert and I had agreed to divide the observational controls; he would look above the table and I would look beneath it. The most interesting levitation was the third, which occurred in red light sufficient to see all hands on the table and which was notable for the manner in which it rose. Although in all five levitations, the table seemed to float upward (as opposed to being pushed), the table on this occasion rose relatively slowly and quite gently, about 18 inches at most, and (like the other levitations) remaining aloft for 2 to 3 seconds. I could see most feet under the table. Neither Robert nor I noted specifically whether Kai's or other sitters' thumbs were visible above the table. However, although visible thumbs would have made the phenomena even more impressive, for the reasons mentioned above it's unclear how serious that omission is.

So this table sitting can be ranked as intriguing, but no more than that. If the levitations were genuine, then the smooth rise of levitation no. 3 is perhaps the most interesting feature of the observed events, and it connects obviously to similarly smooth object movements reported in the most scrupulously documented poltergeist and physical mediumship cases.

CABINET SÉANCE 08-24-2012

Attendees in the order of seating, clockwise (doublechecked by Robert Narholz with the official seating chart)

Kai Mügge (medium)

Stephen Braude (control of medium's left leg and arm)

Renate (from Bavaria. This was her 6th cabinet séance with FEG. She is a spiritualist and a great believer in Kai's powers.)

Jochen S. (circle leader, music operator)

Vanessa (originally from Mexico City, now Berlin; this was her first séance)

Robert Narholz

Elke Mügge (mother of medium)

Torsten (first time FEG sitter. He had an angel appear to him while drowning and is convinced of the existence of God and the afterlife/spirits based on his "personal experiences and evidence.")

Martine (a neighbor and regular sitter)

Jens (first time FEG sitter)

Ute (seasoned FEG sitter, but no regular)

Julia M. (medium's wife, control of medium's right leg and arm, light operator)

I arrived first at the Mügge house, shortly before 6 p.m., and after a few minutes chatting upstairs with Kai's warm and hospitable parents I went to the cellar to inspect the premises. Jochen and Robert arrived about five minutes later, and Jochen then walked me through the inspection again, making sure I looked at all parts of the séance room and adjacent areas. Jochen was very insistent about this, wanting to satisfy himself that I didn't miss something that might come back to haunt me later.

Jochen then began to prepare the séance room by arranging the chairs and PK target objects, and sealing off light sources around windows with tape. Robert meanwhile began setting up cameras in case we were later given permission to do video recording. The PK target objects, placed at the far end of the circle away from the cabinet, are typically a small conga drum, and atop that a tambourine and maracas, alternating with a luminescent plaque or balls, or a handkerchief.²

Kai places a strip of black tape on the floor in front of the cabinet. He claims that the tape marks the near boundary of the PK field that emanates from him. But, he says, the main purpose of the tape is so that once he's outside the cabinet, he can maintain a good distance in the dark from the physical phenomena occurring at the far end of the circle. Kai realizes that this would help deflect facile charges from critics that the phenomena are caused by his moving out into the room under cover of darkness. It's easy to feel the tape with one's shoe, and since I would be sitting immediately to the medium's left while controlling him, I could place my foot in that area to make sure Kai's leg didn't move beyond it. Moreover, the distance from the tape to the drum and target objects was approximately 49.5 inches, considerably greater than Kai's reach.

The other sitters began to arrive around 7:30 p.m. and assembled in the Mügge's dining room around a large dining table. Kai arrived soon thereafter, apparently already into a distracted or light trance state, but still able to communicate normally. He had also begun to sweat profusely and was drinking large quantities of tea. After the sitters briefly introduced themselves (and because there were several first-time sitters), Kai provided a lengthy introduction of at least 45 minutes about the nature of the controls that would be imposed on the medium, and also the various rules of procedure (e.g., keeping legs and arms close to one's body, not grabbing the "entities" when touched). Kai claimed he'd been injured (sometimes bleeding) back in the cabinet when this last condition has been breached.

Shortly before 9 p.m. Kai retreated upstairs, ostensibly to deepen his trance state. Then while the guests remained in the dining room, Julia and I returned to the cellar to check it out once again—this time in darkness illuminated by Julia's flashlight. The explanation for the darkness was that

the lightbulbs had been removed from their sockets (it's a standard FEG precaution against inadvertent or hostile illumination during the séance). Moreover, Julia and Jochen insisted on this re-inspection of the premises, for the obvious and sensible reason that the room had been left unattended since my earlier examination. I asked Julia to shine the light on all parts of the séance room, including the cabinet and the curtained-off adjacent space next to the séance area where Kai's computing equipment is set up. I was satisfied that all was in order.

The sitters were asked to leave all watches and cell phones outside the séance room. Then Julia admitted the guests, one by one, into the séance room after checking them with a metal detector. I was scanned as well. (I later learned that for some reason Robert was *not* scanned; he just walked in and finalized the camera arrangements.) At this time the red light in the séance room was on, and some additional light entered from the hallway. Then, while Robert remained in the room to re-check the cameras and ascertain that nothing suspicious occurred, Jochen and I went upstairs to strip-search the medium.

We found Kai dressed only in his underpants (briefs) and apparently much further into his trance state (though still conscious of his surroundings). Kai cooperatively allowed us to see under the folds in his belly and inside his underwear. We didn't conduct a full cavity search, but it was clear that no contrivance or mass of cloth or other material was concealed externally. Jochen then provided Kai with a fresh set of clothes, which I inspected before Kai dressed.

Moreover, as I watched, Kai also drank the remaining liquid in a large, transparent plastic bottle of black tea (he typically drinks large quantities of liquid before cabinet sittings to avoid dehydration from the heavy perspiration that usually follows). The point of this was twofold. First, in order to help deflect the skeptical charge that he regurgitates ectoplasm, Kai wanted to drink something that could stain a white or light-colored material. Granted, blueberry syrup (which the materializing medium Eva C. had swallowed)³ would be a more effective means of accomplishing that goal, but it wouldn't be as effective in combating dehydration. Second, Kai wanted to empty this bottle and not take it with him to the cellar. Some have suggested that Kai, who often carries the bottle with him, used it to conceal something that later helps him fraudulently to produce his phenomena. Neither Kai nor I have yet been told exactly how that would be accomplished, and so that skeptical move is currently toothless. But Kai wanted the point to be moot for this séance.

Jochen and I then walked Kai down to the cellar. Kai walked in front of me, with his hands raised in full sight the entire time so that I could be sure

that he wasn't grabbing some accessory on the way downstairs. En route downstairs, Kai asked Jochen to go back and bring him a towel that he'd forgotten (to be used for his perspiration). I remained with Kai (his arms raised), and Jochen handed me the towel for my inspection before passing it on to Kai. We then proceeded to the cellar.

The séance began around 9:30 p.m. and lasted for 3 hours 15 minutes. The room was completely dark, and despite the loud music playing from the CD player, we could hear Kai clearly as he began his "holotropic breathing," a heavy panting and moaning that could easily be mistaken for the sounds of sexual activity. Ordinarily, this happens only at the beginning of a cabinet séance, but this breathing recurred throughout the evening's activities, as if the medium needed to re-enter the state from which he was involuntarily slipping. Kai later confirmed that it's unusual for him to moan and breathe heavily throughout the séance. He attributed this partly to the lack of energy being contributed by some of the first-time sitters.

As far as I'm concerned, Kai's continued heavy breathing and moaning only made it easier to affirm that throughout the entire séance Kai was sitting in the area of the cabinet and not moving out into the room. Because the physical controls described below were not continuous, this additional and uninterrupted audio control was especially welcome.

After about 15 minutes, HB began to speak through Kai, first in German, but then, at Julia's request, in English. The HB voice is rather coarse, and itself sounds like a partial groan. HB apologized for his lack of command of English and claimed that he was drawing on Kai's knowledge of English (which is considerable). So communication in English with HB was at no time problematical.

HB then exchanged greetings with all the sitters. He explained that the medium would periodically be controlled by the sitters at his sides (at his command) and that at other times he would ask the sitters to form a chain or "circuit" by holding hands. Since the chain terminated with me on one side and Julia on the other, she and I were asked to hold the sitter's hand next to us with both our hands. Jochen was permitted one free hand to manipulate the CD player, but the adjacent sitter not holding one of his hands would instead place a hand on Jochen's shoulder. Thus, assuming the honesty of the sitters, one could ascertain that the sitters were in their chairs and not doing something suspicious or in violation of the rules of procedure. Moreover, at those times I could still ascertain that the medium remained in his place by the cabinet, because my right leg and foot still touched his left leg and foot, and because the medium's heavy breathing and talking were still audible from that location.

The first physical phenomena (as usual) were rapping and scratching

noises on the walls or ceiling. Some of the sounds occurred directly behind me, even though my chair was two or three inches at most from the wood-paneled wall (see Nahm, this issue, for a description of the Hanau cellar séance room). Moreover, the sounds were clear and bright, with a wider spectrum of frequencies (especially high frequencies) than the more muffled sounds we'd expect if someone were producing them through the 16-inch-thick concrete wall between the wood paneling and the wine cellar outside the séance room. I'd been warned that, in my position next to the cabinet (and behind the area where Kai says the PK field penetrates), I'd experience fewer physical phenomena than the others, and presumably fewer such phenomena than I experienced on my previous visit. That turned out to be the case, but I felt it was a reasonable tradeoff for being able to control the medium and for being maximally close to the ectoplasm I hoped would appear later.

The raps, etc., were not as abundant as I'd experienced previously. But it's clear nevertheless that they often came from positions that seemingly could not have been produced at all (or without detection) by the medium or a sitter—e.g., from the wall several inches behind my head, and sometimes to the right of my head (where there was no room for a person to stand). The raps also moved quickly around the ceiling and wall and often switched locations more rapidly than one person would have been able to move (especially without detection). During all this, I clearly heard the medium breathing heavily from his position by the cabinet.

Soon, sitters reported being touched, but their reports were no more informative than simple exclamations of having been touched. It would have been more helpful had they described what the touches felt like. Again, I could clearly hear breathing in the cabinet over the music and conversation.

Next, some sitters reported seeing a light or lights in the room. Robert (at the far end of the room) said he felt as if he had a personal light which spent several minutes in front of him, between his knees, and within eight inches of his face. During the first minute or so when these first reports were occurring, I saw nothing, but then I saw a small bright yellow-white light toward the ceiling and slightly to my left and in front of me. It was about the size of a small LED, but unlike an LED of comparable brightness nothing (not even dust) was illuminated in front of it. Soon the light began to move, and move rapidly, around the room, above and (on the wall) behind the sitters, around the ceiling, and at one point even resting on or near the floor, near to where some sitter's feet would have been (and at that point it was very clear that the light was illuminating nothing in its immediate vicinity).

The next phenomena occurred at the location of the drum, the top of which was covered by maracas and bells. Although (from my location next

to the cabinet) I heard nothing from these objects, others reported hearing minor scratchings and sounds of movements in the vicinity, and some of the items on the drum were knocked over. But these events were too faint and distant from my location to make any impression on me.

HB then ordered Julia to prepare three luminescent ping-pong-sized balls I'd purchased two years earlier for the group. She charged them with a small flashlight and then positioned the balls on a black square plate which she placed on top of the drum. According to sitters nearby, after Julia returned to her seat and extinguished the flashlight, the black plate rattled and the balls were knocked over. After the balls were placed back onto the plate, the plate rotated slightly. HB asked if anyone saw a structure blocking the light from the balls (presumably the entity or entities manipulating the objects). Some say they did, but others not. I did see small black and brief obstructions of the light from the balls. Suddenly, one of the three balls rose quickly (or jumped) and fell to the ground.

Between the occurrences of the different physical phenomena, HB would pause, ostensibly to store up and concentrate energy for the next manifestation, and on two occasions to deliver messages from "communicators" to specific sitters.⁴ While the physical phenomena occurred, I controlled the medium, and I sometimes controlled Julia as well. During the phenomena I was aware at all times of the medium sitting next to me and to my right (the phenomena thus occurred to my left and sometimes behind me). I was always in contact with the medium's left foot and usually with part of his left leg, and during the phenomena I usually held at least his left hand—and sometimes felt his right hand beneath that of Julia (when I controlled her as well).

More precisely, the controls worked as follows. I sat to the medium's left, only a few inches away. My right hand held his left hand and rested on his left leg, which I also touched with my right leg (and my left foot was in front of his left foot). When prompted by HB, I also reached across the medium's lap and my left hand grabbed one or both of Julia's hands in such a way that my left forearm rested on Kai's right leg. This meant that my body effectively blocked the medium's body in such a way that I could easily tell if he was trying (say) to reach out into the room. I could also be sure that he didn't move from his spot during the phenomena, many of which took place at least 50 inches from him.

Significantly, and despite his considerable physical separation from the PK target area, the medium's body often twitched during or immediately prior to the occurrence of phenomena. Moreover, he would often squeeze my hand just prior to or during the phenomena occurring out into the room. This synchronization between a medium's muscle movements and

phenomena at a distance has frequently been reported in the better cases (see, e.g., Bottazzi's descriptions in his studies of Palladino—Bottazzi 1907, 2011, Giuditta 2010). I should add (though it should be obvious) that there's a distinct tactile difference between Kai's massive and fleshy (and sweaty) hands and the considerably more petite and dry hands of Julia. So it was easy to confirm during the periods of double control that I held Julia in her place and that neither she nor the medium had moved out into the experimental area in order to produce the phenomena.

As far as the moving light is concerned, I know some have suggested that it might have been produced surreptitiously by someone waving the little LED flashlight that Julia used to rearrange the objects on or near the drum located 49" away from the black tape on the floor. However, I believe that this was not the case during this séance, because that flashlight was placed inaccessibly under my chair. I'm also reasonably confident that neither Julia nor anyone else using a different mini-flashlight produced the light movements above and to the right of my head. There was no room to maneuver to the right of my chair, and I blocked access from the front and left. So because the light above me and to my right arrived there in a straight path from my left, if someone were carrying a flashlight to produce the effect, that person would have needed to travel along a path obstructed by my body, which was leaning slightly forward and whose legs were still in contact with the medium. So I believe I would have detected by bodily contact someone standing near enough to me to be able to move the light sufficiently far to my right. Now I can't rule out the possibility of a conspiratorial sitter breaking the chain of hands and using an extended fiber-optic device to create that light and move it undetected to my right. But there's no reason to think that the mandatory conspiracy occurred, or that the broken chain of hands would have gone undetected. I'll comment further in the next section about problems with the skeptical appeal to one or more conspirators.

After the light phenomena and the second and final communication delivered through HB, HB announced that the energy was rather weak, partly because of some of the new sitters (HB had complained earlier both that someone had extended a limb too far into the "field" and that some sitters were not singing loudly and contributing enough energy to the proceedings), and partly because of the unfamiliarity of having me control the medium. Since, under the circumstances, HB said he felt he could not provide a full menu of the usual physical manifestations and also produce ectoplasm, he asked which we'd rather see. Ectoplasm was the unanimous choice.

So HB retreated back into the cabinet to build up energy, and he asked

Julia to let in some fresh air from the darkened hallway outside the séance room (it had indeed become very stuffy). After about 10 minutes, the ectoplasm portion of the evening began.

Jochen and Robert asked repeatedly if we had permission to video record, and HB apparently conversed with the Chemists on the matter. Eventually, he conveyed the news that no video would be permitted. That's especially disappointing in light of the phenomena that followed. Moreover (and as I document below), last-minute decisions to prohibit or seriously restrict video recording turned out to be rather common in my experience with the FEG. Granted, Kai's explanation was that these matters are all governed by HB and the Chemists should be considered with an open mind. But in the wake of the recent evidence for at least occasional FEG fraud, that pattern of refusals can only arouse additional suspicion.

HB directed Julia and me several times to draw back the curtains of the cabinet, and he instructed Julia as to the appropriate rheostat setting of the red lamp. After each display in red light, HB retreated back into the cabinet and closed the curtains, at which point Julia extinguished the lamp and we waited for the next instruction to pull back the curtains and turn on the red light again.

In the first display of ectoplasm, the red light revealed the medium pulling a substantial quantity of material from his mouth, allowing it to fall into a heap onto the floor, between his legs but slightly in front of him and outside the cabinet. The material looked like very fine cloth, somewhat translucent and perhaps resembling tulle, muslin, or cheesecloth. I was approximately 3 feet from the material and could see it reasonably well. I estimate that the mass resting on the floor was roughly rectangular: 12–16" long × 6–8" wide × 4–5" high. The medium retreated to the cabinet after this.

When, at HB's cue, Julia and I reopened the curtains, we saw the mass still on the floor. HB said he wanted us to see how it embodies energy within itself, and indeed the mass seemed to be flexing throughout, as if it was breathing and animated from beneath. We observed this for 20–30 seconds before the medium (whose hands were inside the cabinet during all this) retreated again behind the curtains.

The next two viewing periods followed the same format and revealed roughly the same thing. In each case, the "breathing" mass served as a base for a gradually developing "arm," about 1.5–2" in diameter, topped with a hand-like appendage having distinguishable (but not clearly separated) fingers. (I didn't recall whether the hand was already visible in a rudimentary form when the light was turned on, or whether it actually appeared from within the mass. But I do recall that the "arm" grew and rose gradually out

of the mass.) The fingers remained in a curved, not fully extended position, as if the hand was prepared to grip something. This made it look somewhat like the head of a cobra, as the appendage turned back and forth left and right. The first time this happened, the appendage rose to a height of about 5 or 6 inches. The second time it rose higher, perhaps 12 inches or more, and it seemed to wave as it turned left and right.

The next time we opened the cabinet, we saw an already formed long protrusion or narrow (handless) column coming from the mass, rising to a height of 3 or 4 feet, looking like a semi-transparent tube. The medium's left hand passed slightly back and forth across the top, as if to show that nothing was pulling the protrusion up from above. I can't say what Kai's right hand was doing during this time.

The next display was supposed to show how the ectoplasm can cover the medium and return some of the energy to his organism. This time we saw the material looking like a fine netting covering the medium's legs and part of his torso as if it was a partial cocoon. After this and once the medium was again behind the cabinet curtains, HB said that, because the medium had lost so much water in the hot séance room and during the strain of the long séance, we wouldn't be able to see the ectoplasm retreat into the medium's body. So he quickly thereafter ended the session.

The sitters then filed out of the room, leaving Julia and me alone with Kai, who took at least 10 minutes to regain his senses. The red lamp was turned on during this interval, and I could see in and around the cabinet; nothing suspicious was visible. Julia also showed me the bucket traditionally kept near the medium in case (as I was told) he has to vomit when emerging from trance. Nothing was in the bucket except for a damp towel previously used to cool the medium and which I had inspected earlier as well. Kai took his time smoking a cigarette, and then slowly walked ahead of me with Julia, upstairs. I was the last person in the séance room.

Discussion

Now, what about possible skeptical concerns?

No doubt some will wonder about the periods of darkness between viewings of the ectoplasm in red light. However, since I strip-searched Kai, examined the fresh clothing and towel we gave him, and examined the cabinet and room both before and immediately after the sitting, it would be hasty to rush to skeptical judgment. Certainly, it's not inherently suspicious, and there could easily be other reasons besides deception for the several retreats behind the curtain. HB claimed that it was to "re-charge"—that is, build up his waning energy for the next demonstration. He described his need to retreat occasionally behind the curtain as being like a fish that could

exist for short periods out of water, but which then needed to return to the water before re-surfacing. That may or may not be a fair account of what is actually necessary for the phenomena to occur non-fraudulently. And if it is a fair account, it could either be (a) because it's a generally accurate description of how the world works (i.e. what it takes to produce spiritistic phenomena), quite apart from what the medium believes about how the world works, or (b) because it's how the world works for mediums less prodigious (i.e. with more modest abilities) than Home, Rudi Schneider, and some others, or (c) because Kai (or HB) believes that's how the world works and so that's how it works in his case at least.

Some have suggested that the medium used a very fine thread or hair to manipulate the ectoplasmic mass on the floor. This dialectical maneuver seemingly takes a cue from Frank Podmore's unconvincing attempts to explain the phenomena of D. D. Home (see Braude, 1997:65, Podmore 1902, 1910). Let's call this skeptical proposal the *Puppeteer Hypothesis*, and although I can't rule it out, it seems problematical, for the following reasons. The mass was outside the cabinet and the medium remained inside, behind the ectoplasm. Admittedly, I wasn't looking at the medium's hands while concentrating on the ectoplasm, and so I can't say that the medium wasn't manipulating difficult-to-detect magicians' strings strung over the hoop to which the cabinet curtains were attached. Nahm (this issue) advances substantive reasons for considering this option seriously, at least for some ectoplasmic manifestations. However, the breathing (or flexing) seemed to be animated from within the mass, and the mass was expanding (and seemingly flexing) from several different points along its surface (so that several strings would presumably have been necessary). And as for the ectoplasmic hand, I question whether any thread(s) could explain how it gradually took shape, grew and partially opened, and became more determinately hand-like. Then, as the hand turned left and right and back and forth, I believe that too would have required puppet-like hairs manipulated from above or from within the cabinet. Thus, if Kai was a mere puppeteer, I believe he would have needed quite a few threads which he expertly manipulated from his place within the cabinet. These would have allowed him to move the surface of the ectoplasmic mass on the floor at different points, separately raise an ectoplasmic arm and hand, separately open and change the shape of the hand and then also move it left and right. I can't say this is impossible, but it begins to look as though the degree of conjuring required would be quite sophisticated. Furthermore, I did see Kai's left hand pass over the long, handless protrusion emerging from the mass, and which thus did not seem to have a string attached to its top. Moreover, since I was with Kai from the time he was strip-searched, and because I detected

no strings on him (much less a more conspicuous device), any strings he might have used would presumably have been concealed within the cabinet (perhaps, as Nahm suggests, behind the strips of black tape affixed to the inside of the curtain, ostensibly to enhance the opaqueness of the cabinet), or perhaps hidden in his rectum or gut—something I again can't rule out.

I imagine some will also raise concerns about Jochen's free hand during the earlier (PK) portion of the séance. I concede it's not ideal, but several considerations lessen its significance. For one thing, Jochen was still connected by one hand to an adjacent sitter (either Vanessa or Renate), and so unless his neighbors failed to report it or colluded with him, he couldn't have been free to produce phenomena outside the range of his free arm—e.g., the light to my right or the raps above my head. Another is that similar phenomena have been reported at séances that Jochen didn't attend. So the determined skeptic would have to develop some version of a conspiracy counter-explanation, involving a team of widely dispersed assistants helping Kai no matter where he holds a successful séance. That's always a sign of skeptical desperation in my view.

But perhaps most important is the significant fact that the medium twitched immediately prior to or simultaneously with the production of the phenomena. I felt him squeeze my hand tightly and press both his hand and leg against my leg, as if he was straining to expel the phenomena from his body. Sometimes I held Julia's hand as well. The phenomena thus seem directly connected to what was going on in the medium, but given my intrusive controls it seems unlikely that Kai was surreptitiously manipulating the objects at the far end of the circle. Of course, some might wonder if Kai had an accomplice among the sitters. But that conjecture faces a major obstacle: How would some conspirator elsewhere in the room have felt those physiological cues to know when to produce the object movements fraudulently? Neither Jochen nor any other non-controlling sitter had perceptual access to Kai's hand-squeezing and muscle tension.

There's one more issue, having to do with Julia, or perhaps with me. And it concerns the following incident. Several times during the object movement part of the séance, we noticed light entering from outside the séance room through small cracks in the séance room door and a door just outside that. We thought that maybe Kai's brother or sister-in-law (who live on the floor above the cellar), or a friend of theirs, might have entered the cellar—although Jochen and Kai assure me this never happens, because these people all know to stay clear of the cellar when Kai has guests for a séance. The third time this happened—but *after* the object movements described above had already occurred—Jochen asked Julia if she could go upstairs to ask the people not to come downstairs again. Jochen didn't

want to do this himself, because his role as circle leader is to monitor the interaction between HB and the sitters (and control the music). Julia then asked HB for permission to leave, and it was granted. She left the room for 50 seconds (the audio recording of the proceedings shows that she left from 1.16.25 to 1.17.15). She then returned and reported that no one had at any time entered the cellar area. Jochen (and later Kai, when he learned about this and confirmed with his family that no one had come downstairs) is convinced that the turning on of the lights was paranormal.

Now I didn't realize Julia had left the room. I thought she remained in the entrance way to the séance room and simply peered into that space. My confusion was probably due to the fact that the conversation between Jochen, Julia, and HB happened quickly and in German. In any event, I didn't follow Julia out of the room to confirm that she brought nothing back with her that might have assisted the subsequent production of ectoplasm, and I blame myself for not pursuing her to be able to report that she did nothing suspicious in her absence. Nevertheless, although this was an unfortunate lapse in control (indeed, I'm assured it's an unprecedented occurrence for anyone to leave the room in the middle of a séance—unless it's someone who fainted and who then doesn't return—which happens occasionally but rarely), I believe it's far from fatal, for the following reasons.

First, when Julia left the room when the séance ended, I saw nothing suspicious on her person, and I'd remind the reader that I saw no props in or around the cabinet. Moreover, as is the case with the object movements, Kai began producing ectoplasm long before he met Julia. More precisely, Kai and Julia met in March 2011. But Kai had been holding cabinet sittings with ectoplasm since the summer of 2009. So once again I suggest that we be careful not to point a suspicious finger at Julia if it commits one (as it would seem to here) to a more general conspiracy theory of Kai's mediumship. Besides, I often controlled both Julia and the medium during the object movements and lights. So it seems that she was not an accomplice for *those* phenomena. In fact, it's worth noting again that Kai has conducted successful cabinet sittings that *neither* Julia nor Jochen attended, and that recourse to a larger conspiracy of confederates is a desperate skeptical gambit.

So, this séance was clearly a major advance over my 2010 cabinet séance with the FEG. I commended Kai for allowing me not only to control him directly, but also to conduct a strip search, and to observe him after the séance (i.e. in conditions I'm quite sure most self-respecting persons would feel to be particularly vulnerable or unattractive). And while I've noted various respects in which the controls could have been better still, I saw no reason not to be encouraged by the results. Kai seemed pleased as well. He indicated he would be happy for Robert and me to make a return

visit and that he would very much like to include high-resolution video recording of the ectoplasm. As it turned out, and as I describe below, before a year had passed we were indeed able to improve upon the controls in the Hanau séances and obtain video footage of the ectoplasm.

I should add that the events of the cabinet sitting convinced me that for any follow-up séances we must reduce the number of sitters, especially first-timers. I was quite disappointed (in fact, annoyed) that so many attended the cabinet séance, because for months I'd been discussing with both Kai and Jochen my preference for working only with a bare minimum of people in order to reduce the number of potential suspects and simplify the evaluation of skeptical counter-explanations. My understanding was that Kai appreciated this and had consented to my preference, and so I felt that he had once again reneged on an informal agreement regarding séance conditions. Nevertheless, I sympathize with Kai's interest and willingness to include more sitters. For one thing, he's inundated with requests from potential attendees, to the extent that he's now reduced his previous work as a videographer.⁵ And for another, he seems to take energy from the enthusiasm of the sitters, and the more the merrier. As it happened, Kai did screen the first-time participants ahead of time, both before meeting them, and while he interacted with them prior to the séance (he always had the last-minute option of denying them the opportunity to participate). He felt they were acceptable, but that turned out to be wrong in one or two instances.

TABLE SÉANCE 08-25-2012

Attendees in the order of seating, clockwise

Kai Mügge (medium)

Elke Mügge (mother of medium)

Jochen S. (circle leader, light operator)

Stephen Braude

Julia Mügge (medium's wife, music operator)

This session was held on the spur of the moment. Robert had left Germany, and those listed above had gathered in Elke's dining room for snacks, convivial conversation, and discussion of the previous day's cabinet séance. I believe we were all tired from lack of sleep. The séance had ended in the early morning hours, and Kai evidently hadn't slept at all—as is often the case after a cabinet séance. But everyone seemed relaxed and in good humor. So despite the general level of fatigue, we decided to try a table sitting, and Kai said he was eager to try infrared video recording.

I hurriedly set up my IR camcorder on a tripod, and I tried to find a location where the view would show as much of the table as possible. I found a location aiming between the initial positions of Kai and Julia. I couldn't foresee that Kai would find his chair very uncomfortable and, while shifting his body (in the dark) to feel better, move to the right and block considerably more of the view.

Apparently, my camcorder battery had been more depleted than I realized, and the camera shut off after 30 minutes. But during that time we had two small table levitations. The smallest lasted about one second, and the table rose only a couple of inches. The other levitation lasted nearly 3 seconds and the table rose to a height of approximately 8 inches. Although Kai's body blocked much of the table, the video shows clearly that the table top was level and parallel to the floor. One can't tell from the video whether Elke (totally out of view) lifted the table normally, but it's highly unlikely. First, I'm confident that deception of this sort would be totally out of character. And second, Jochen and I can attest to how difficult it was to raise Kai's table smoothly by oneself, and we're much stronger than Elke. Moreover, one of Jochen's arms is visible, and the position of his body is incompatible with his reaching his unseen hand far enough under the table. That's also the case with Kai, who moved his right arm up and down above the table, imitating the levitation technique of Eusapia Palladino.

Clearly, the video of this levitation is not evidential. Nevertheless, granting the integrity of the sitters in this friendly and very relaxed sitting, it's arguably a valuable document of a full table levitation. One can view it online at <http://www.youtube.com/watch?v=P9mVoQFqR6o>.

After the camcorder battery failed, Kai requested red light. From that point on, we enjoyed no more table levitations, although the table occasionally moved quite vigorously, often to the rhythm of the music. Kai soon began to remark that he was feeling some twitching in his left arm, which I learned later is often a precursor to an apport. But at the time, I didn't realize that this might have connected to a request Kai made a little while earlier in the dark, for the "spirits" to present me with a gift.

At one point, Kai was standing next to the table. I could see all the sitters, and I could see that they all held hands in a chain. Suddenly we heard the sound of something dropping onto the table. A quick search on the floor revealed a small metal statue of the Indian goddess of wisdom, Saraswati, in the familiar pose in which she's often represented, and which is also tattooed onto Julia's arm.

Because this séance was very spur of the moment, I made no careful inspection of the room prior to the beginning of the séance, and I conducted no search of Kai's body or clothes. Also, I can't be certain of what might have

happened in the dark prior to turning on the red light. But when the apport appeared, all sitters were visibly joining hands around the table and Kai was talking normally (suggesting that the statue was not hidden in his mouth). Besides, the apport fell loudly onto the table, as if it had been propelled—rather than released—there. If the object had been hidden in Kai's mouth (clearly visible in the red light) or on his body, he would presumably have needed to make some sort of spitting, blowing, or other detectable motion to expel it so forcibly. And if the apport had been concealed externally and somehow positioned ahead of time to fall onto the table, presumably some kind of time-release mechanism would have been required. I can state confidently that I saw nothing on the ceiling or elsewhere when the lights were turned on.

Austria, May 2013

In order to tighten the séance conditions both significantly and relatively painlessly (psychologically) for Kai, Robert and I arranged for the next sittings to be held at Robert's large private farmhouse outside Salzburg. We also arranged for a small and very compatible group of sitters, all of whom Kai liked, all of whom were experienced with the FEG, and all of whom could be lodged comfortably in the farmhouse and kept under casual surveillance. In our more grandiose moments, Robert and I fancied that this investigation would be a contemporary analogue of the famous and successful experiments with Eusapia Palladino, conducted on Richet's private island (Lodge 1894).

Robert and I were aided in these investigations by Michael Nahm, a biologist and psi researcher who is quite experienced with the FEG, both as a sitter and a controller (see his paper in this issue). We were very grateful for his expertise, suggestions, and his help in making Kai feel comfortable and among friends.

PARTICIPANTS:

Kai Mügge (medium)
Julia Mügge (medium's wife, music or light operator)
Jochen S. (circle leader, light operator)
Anna S. (Jochen's wife)
Michael Nahm (biologist, parapsychologist)
Stephen Braude
Robert Narholz (co-investigator, homeowner)

The séance room (see Figure 4) was a large space in Robert's farmhouse occasionally used as a spare bedroom. Its wooden floor was divided into

two roomy areas by a pair of steps. Robert removed all furniture except for six folding chairs (with cushions placed on top), a more substantial wooden chair for Kai, two small wooden tables (one for the red lamp and the other for the CD player), and a plastic séance table 33.5" in diameter. The upper portion of the room had some built-in shelves with nothing on them. But otherwise the room was bare. The curtained windows could be locked top and bottom from the inside, and then interior shutters could also be locked from top and bottom. Except for brief periods during the setup of the séance room in which we wanted additional light or fresh air, the windows were locked at all times. They were also covered in black paper to prevent outside light from entering the room, and indeed, the room was completely dark when the door was closed and the lights were turned off.

Robert and I also installed padlocks on the séance room door, both inside and out. The room was kept locked when not in use; I had sole possession of the key, and no one knew where I kept it when it was not on my person. When sittings were in session, the room was locked from the inside. The locks are not heavy duty, but they and the interior and exterior door latches are quite noisy. So if someone tried to enter the room during a séance, it should be quite obvious.

For the cabinet sitting, Kai and Julia brought their own assembly, consisting of dark black curtains that they attached to a jumbo hula hoop. The hula hoop was originally broken down into several pieces, each of which I examined carefully inside and out before the pieces were attached together. The curtains had strips of black tape attached in many places to the interior, to enhance the opaqueness of the not-quite-opaque material. Robert, Michael, and I inspected all the materials (including those black strips) closely, and for the purpose of verification Robert made a close-up video recording of the objects and the inspection process itself.

The other objects brought by Kai and Julia were PK target objects to be used in both table and cabinet sessions—for example, luminescent white balls, a luminescent plaque, and the usual paper “trumpet” with a luminescent strip attached around the large opening. They also traveled with a small flashlight for charging the luminescent strips. We inspected all these objects as well, but as it turned out (and to our surprise) they played no role in our sittings—except for the flashlight, which we used occasionally to manually change settings of the red lamp controls in an otherwise dark room, and which was used in a table séance to permit a view inside Kai’s mouth prior to an apport.

TABLE SÉANCE 05-11-2013 (see Figure 1)

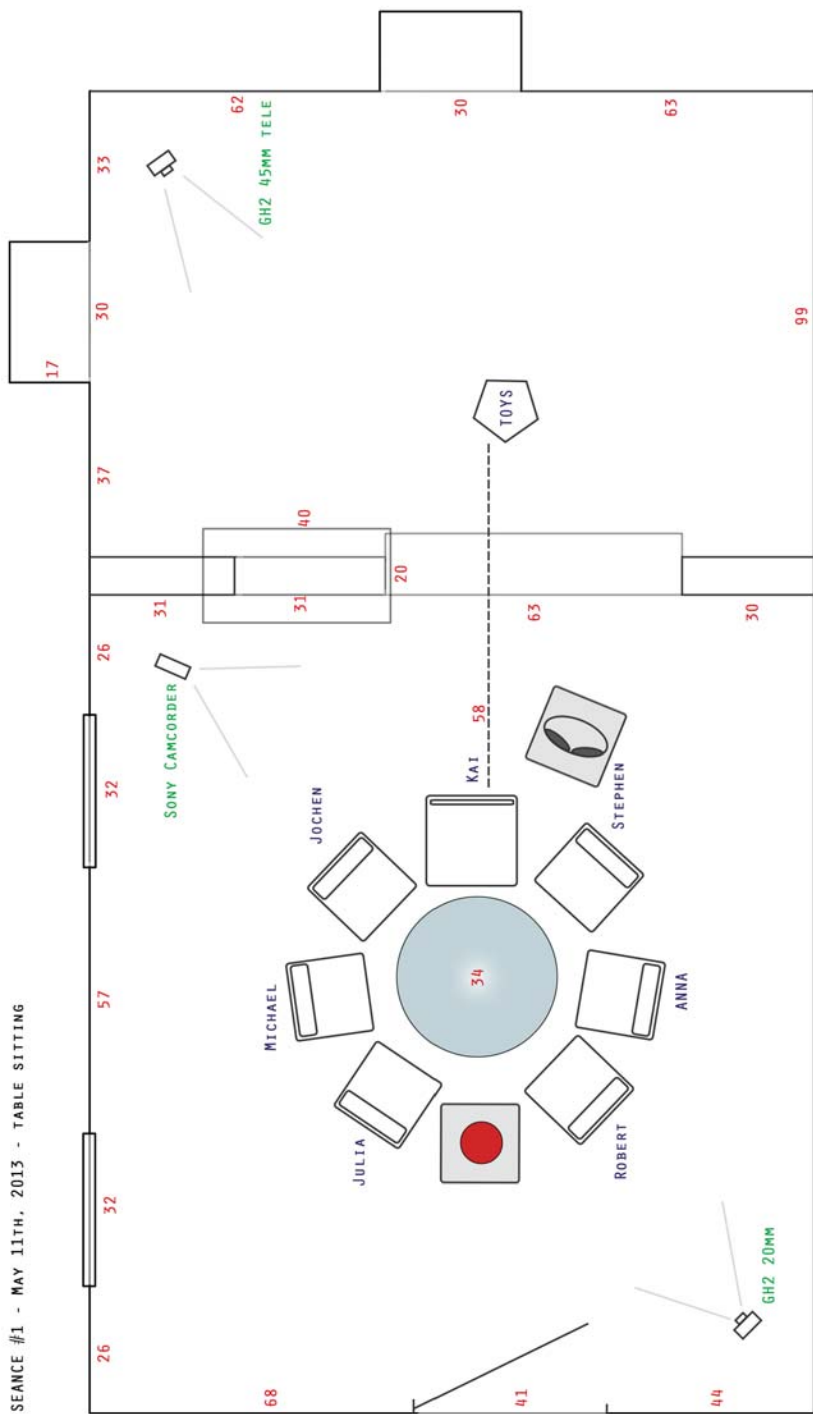


Figure 1. Table Seating at Séance 05-11-2013.

The séance began after dinner at 7:40 p.m. and lasted 1:37. The sitters were (clockwise): Kai, Stephen, Anna, Robert, Julia, Michael, Jochen. All sitters emptied their pockets and removed rings and watches, to forestall the objection that a familiar conjuring trick involving pins placed on the table was used to raise the table. (I was unable to remove my wedding ring.) The lamp was placed on Julia's right side, between her and Robert.

The door remained locked until sitters entered around 7:30 p.m. Various "inspirational objects" were placed in the rear of the room near the window or on the shelves. These included samples of gold-colored foil from my Gold Leaf Lady case (Braude 2007), which I had shown for the first time to Kai and the others (except Robert) several hours prior to the sitting. But not even Robert knew prior to late afternoon that day that I had the foil with me. Jochen thought that Kai might be sufficiently intrigued by the foil samples to use them subconsciously as a basis for an apport (the kind of thing that he has noticed on many previous occasions). So when Kai finally entered the room, several minutes before we began, Jochen drew his attention to the foil samples, and also to the copy of an obscure Hungarian book on physical (apport) mediumship which Michael was in the process of translating (Elemér Pap's *Toward New Horizons*).

The red lamp was on a small table by Julia's side and was controlled by a rheostat. The light was turned off as the séance began, and was turned on at Kai's request at several points during the séance. Kai also instructed Julia as to the brightness of the illumination.

Kai requested that I control him from his left side and that Jochen control him from his right. Julia expressed considerable eagerness for controls. She even said she preferred that Jochen not be seated next to Kai, because he was more likely to be considered by some as suspect than either Robert or Michael. But Kai clearly feels comfortable with Jochen by his side and overrode Julia's request. In any case, Julia asked repeatedly during the sitting for her neighbors Robert and Michael to ensure that she was well controlled.

Although we had several cameras set up to record the proceedings, Kai expressed some anxiety about the new locale and the pressure to come up with good results, and so he requested that we begin with all cameras off and that we turn them on only when strong phenomena started to occur. Now I can certainly understand why any medium might feel anxiety under the circumstances and why Kai in particular might legitimately feel some anxiety even if he was not trying to perpetrate fraud (e.g., if only to justify the honorarium Robert and I were paying him). Still, in light of recent developments, it's somewhat tempting to give a more sinister interpretation to Kai's reluctance to permit infrared—or any—video recording under the minimally intrusive

conditions requested by the experimenters and presumably understood in advance when the Austrian sessions were in the planning stage.

At any rate, after some table movements, we had a total of four table levitations, all in darkness. At the beginning of the séance, Kai insisted that Jochen and I be in good contact with and control his hands and feet—at least until we had some good table levitations under tight controls and then we could be more casual. So Jochen's left knee touched Kai's right leg and his left foot rested on Kai's right foot. His left hand rested atop Kai's left hand. My controls on Kai's left side were the mirror image



**Figure 2. Apport #1, crystal (bottom)
Apport #2, copper nugget (middle)
Pencil (top) to show size**

of Jochen's. These controls were in place for levitations 1, 2, and 4. For levitation 3, my right foot and leg only touched the left foot and leg of Kai. But I could feel Kai's foot clearly though the thin slippers I was wearing.

The levitations lasted between 2 and 8 seconds,⁶ and each time the table rose smoothly, approximately two feet off the ground. It was clear to all sitters that the table surface was always in a horizontal position during the levitations. Before levitation 4, Jochen and Michael felt a breeze, despite the windows all being closed. Then Julia said she felt it, and then Robert added that he felt it on his left side.

There were two apports during the séance, especially intriguing given that they occurred in sufficient light to view clearly both Kai and the area above the table.

Apport #1: Kai stood up and asked Jochen and me to hold his hands. He then asked Julia to shine the flashlight on his mouth. We could clearly see Kai sticking out his tongue and wiggling it, and at one point a 1.75"-long, 3/8"-thick crystal (Figure 2) dropped, loudly and apparently forcibly, onto the table. Probably because Kai had called our attention to his mouth (for the purpose of misdirection?), most sitters had the impression that the

apport emerged from that vicinity. However, the appearance of the object was too sudden for me to say where, exactly, it came from. Nevertheless, although we didn't search Kai ahead of time, it seems unlikely that Kai had previously concealed the object on his person and at some point in the darkness transferred it to his mouth. For one thing, Kai didn't spit or blow the object out of his mouth; his tongue was sticking out when the crystal appeared. So if the object had been concealed in Kai's mouth, it's unclear how it could have been ejected orally with enough force to land loudly on the table. It also seems unlikely that Kai regurgitated the object. We had finished a large meal less than an hour prior to the séance, and it's incredible that Kai could regurgitate that one object and no stomach contents from dinner. I can't affirm that Kai didn't propel the object onto the table with one of his hands, although I believe the light shining onto Kai's face from the flashlight would have revealed any such action.

Apport #2: Kai started to shake and grabbed my and Jochen's hands. Then, with Jochen holding Kai's bare forearm (he was wearing a short-sleeved t-shirt) and feeling over and under Kai's right hand, we clearly saw, under red light, Kai extend his right arm and spread the fingers of his hand. I was holding Kai's left hand at the time. Jochen had been controlling Kai's right hand and arm for several minutes. The apport suddenly dropped forcibly and loudly, apparently from the vicinity of Kai's extended right hand, and bounced off the table onto the small table with the red lamp next to Julia. Once again, because of the (quite typical) suddenness of the apport's appearance, I can't say with any certainty where, exactly, the object first appeared. In his notes written later in the evening, Robert described this event as follows: "[Kai] stretched out his right hand, which I could see clearly, and Jochen grasped it, touched it and checked it all over, and we all joined hands, standing up, and then, BANG, something landed on the table."

Kai was apparently inspired by the Katie foil and Pap volume. Prior to the apport's appearance, he said he or the Chemists were extracting copper either from the foil or from somewhere else. And indeed, the apport was a slightly reddish copper nugget, about $\frac{3}{4}$ " square (Figure 2). It may also be relevant that Kai and Michael earlier in the day had been discussing a mid-20th-century psychic with the surname Messing, which in German means "brass."

For the final 25 minutes of the séance, we turned on the cameras, but no phenomena occurred during that period. In retrospect it's difficult to say whether the running cameras inhibited the phenomena or whether Kai was simply tired by then. Indeed, it seemed that the session exhausted Kai. He seemed dehydrated from having no water or (his favorite) iced tea to replenish what he lost through perspiration, and toward the end of

the session he apparently lapsed into a state of stupefaction, barely able to speak. At that point he said he wanted to pause the session, but Julia decided there was no point in continuing. So the session ended.

Synchronistic postscript: Because we held a second exhausting table séance the next day, the day after that, May 13, was designated a day of rest for Kai, who spent the time quietly at the farmhouse sleeping and making travel arrangements for future séances. So Jochen, Julia, Anna, and Michael toured Salzburg (an hour's drive away), and as they passed a shop selling gemstones and crystals Michael saw in the window a large copper nugget, looking very much like a larger version of the apport we had received two days before. The shopkeeper informed Michael that this is the form in which copper is mined, and that this particular nugget came from Michigan. Inside the shop were more copper nuggets. It's also worth emphasizing that on the day of the séance, it was I who first mentioned copper to Kai and the group, when Kai asked what the composition of Katie's brass foil was. Before that, neither brass nor copper had been topics of conversation.

At first, Kai seemed quite despondent about this turn of events, saying he felt it diminished the significance of the apport. He said that although he had never before held a piece of copper, he felt that because such objects were easily obtainable, it would lead some to suggest he had hidden the nugget on his person prior to the apportation. In fact, Kai said that he didn't know that copper came in the form of such nuggets (indeed, none of us knew that). He said he had believed that the apported object was highly unusual, if not one of a kind, and that his mental images prior to the apport suggested to him that he was forming an object from bits of copper taken partly from Katie's foil samples. So for that reason and because Kai said he felt he had to work especially hard to produce the apport, he was disappointed to discover that his object wasn't something of high strangeness, novel in shape or constitution.

Although I could understand it, I was unable to share Kai's apparent disappointment with this turn of events. I'll comment later in this paper on the evidentiality of the apports. For now, though, it's sufficient to remember that Kai's arm was bare, his hand fully visible and fingers spread when the apport fell forcefully onto the table.

TABLE SÉANCE 05-12-2013 (Figure 3 and Figure 4)

The séance began after dinner at 8 p.m. and lasted 1:55. Sitters were arranged as before, with a large gap between Julia (and the red lamp) and Robert, to allow for a clear video camera view under the table. Michael, Robert, and I carefully checked underneath the table beforehand, and the process

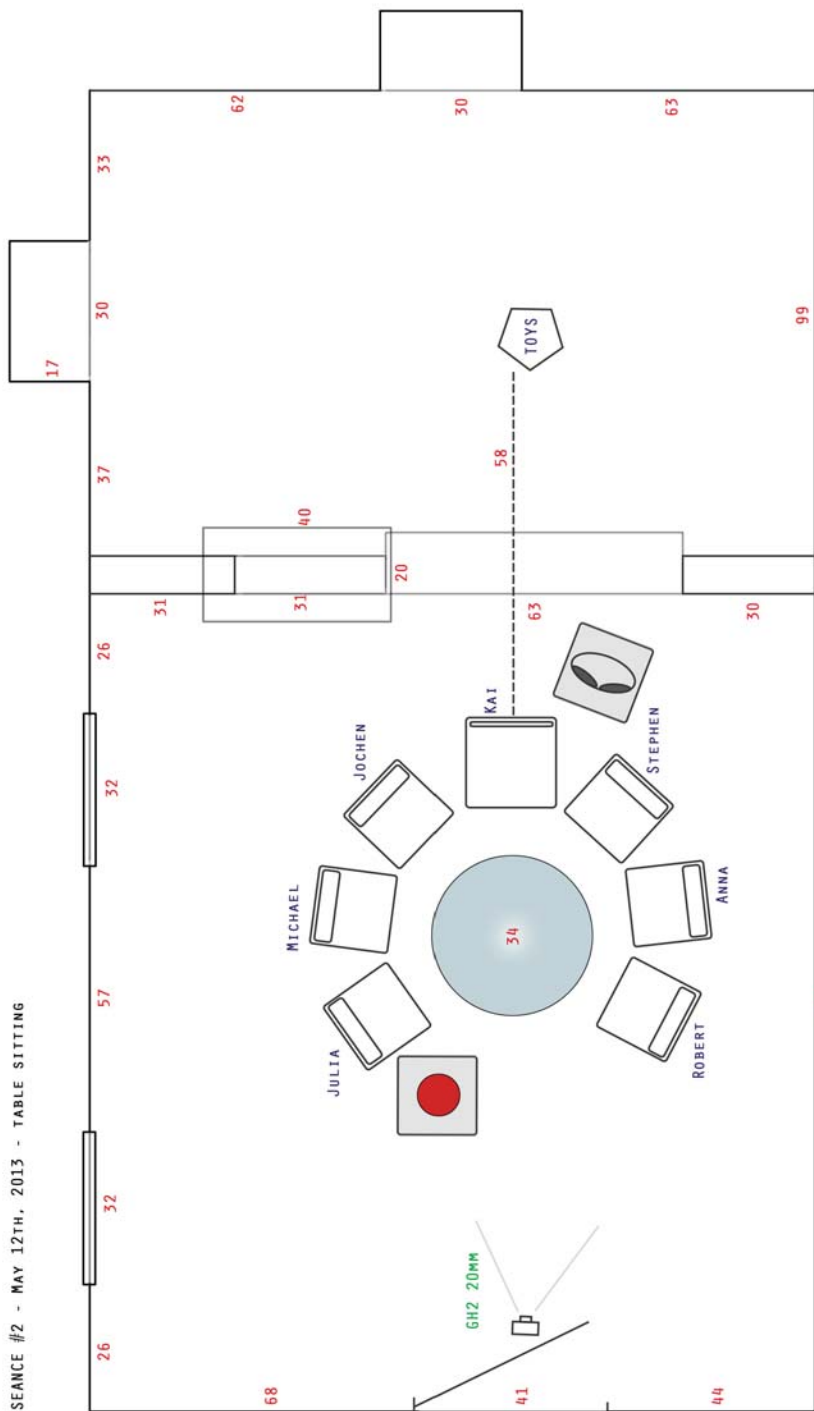


Figure 3. Table Seating at Séance 05-12-2013.

was documented on video. Sitters again removed all rings and watches. I wore no shoes, which allowed a more sensitive method of controlling Kai's left foot. The sitters were vigilant throughout to remain in touch with their neighbors' hands and legs. In fact, because Julia was too far from Robert for normal control,



Figure 4. Farmhouse séance room.

she proposed placing both her knees against Michael's right leg. She did this throughout the séance, and while her left hand was in contact with Michael's right hand, her right hand remained on the lamp switch (which is why we were able to capture the levitations under illumination).

Prior to this sitting, Kai had received indications from the Chemists that they wanted to have one, but only one, video camera turned on for the séance, but placed in the most optimal position for a clear view of the proceedings. Naturally, Robert and I were disappointed once again. For obvious reasons, we had hoped to use more cameras under red light or (even better) under infrared illumination, which in Hanau had worked nicely, but which Kai, HB, or the Chemists continue (I must say, unconvincingly) to resist. Nevertheless, our results on this occasion were promising (if still imperfect), and left Robert and me feeling cautiously optimistic about improving them further in the future.

For the first 70 minutes at least, there were no phenomena apart from some table sliding and occasional shudders suggesting an incipient levitation. After that, we had two strong levitations with one weak levitation between them. The strong levitations lasted between 2 and 3 seconds each, rising between 1.5 and 2.5 feet. When the strong levitations began, Kai instructed Julia to turn on the red light. That allowed us to see and video record the first levitation as it began its descent. And it permitted a good view of the second strong levitation almost from the beginning of its ascent. The video was recorded with a very high ISO (12,800) and slowish 1/13 sec exposure (on an f1.8 lens wide open), but it was sufficient to capture most of the movement clearly and smoothly. The original image is faint, but



Figure 5. Video stills of table levitation at Séance 05-12-2013.



Figure 5. Video stills of table levitation at Séance 05-12-2013 (continued).

after tweaking with image enhancement, Kai's feet and those of most others are clearly visible on the floor, and sitters' hands are clearly visible on the table top. One can also see my right hand touching Kai's left hand and my right foot touching his left foot. The enhanced video segment (Figure 5) is grainy but more than adequate and is perhaps the best video to date of a table levitation.⁷

Kai again seemed exhausted by the end of the séance. Julia reported that they've never gone two hours without a break (usually they take a break after about 45 minutes). Kai immediately went for a short nap afterward, which Julia also claims Kai never does. It was clear to us all that, despite our efforts to make this meeting as cordial and easygoing as possible, Kai felt considerable pressure to obtain good video documentation of his phenomena. From a sympathetic point of view (rather than the more sinister one encouraged by recent revelations), it's feasible that Kai felt more intimidated by having a battery of video cameras trained on him than in having just one aimed in his direction. And it's probable that he wanted to work under conditions as close as possible to those he finds successful at his séances for the general public—in particular, darkness most of the time and red light occasionally. (It's also worth remembering that the current concerns about possible fraud do not concern the FEG table levitations and some other physical phenomena.)

Discussion among the sitters after the séance revealed that most had felt under some pressure to obtain good video documentation, and that after more than an hour had passed with no results, they had begun to give up and assumed the session would produce nothing of interest. (I know I started to ponder how best to counter Kai's disappointment.) But I estimate that's about the time we started to see table levitations. Assuming the genuineness of the phenomena, this seems intriguingly like a release-of-effort phenomenon, and it suggests (what should have been clear anyway) that success in these matters doesn't depend solely on Kai.

CABINET SÉANCE 05-14-2013 (Figure 6)

The séance room was carefully searched before and during setup of the cabinet, with video recording of most of the action. And of course the room and windows were kept locked at all times except during setup and preliminary testing of the video cameras in low light, during which either or both Robert and I were in the room. An overturned bucket (replacing the usual conga drum as a repository for target PK objects) was provided by Robert and secured on the floor by tape on one side, 53" from the strip placed in front of the cabinet. Robert, Michael, and I placed pencils (provided by

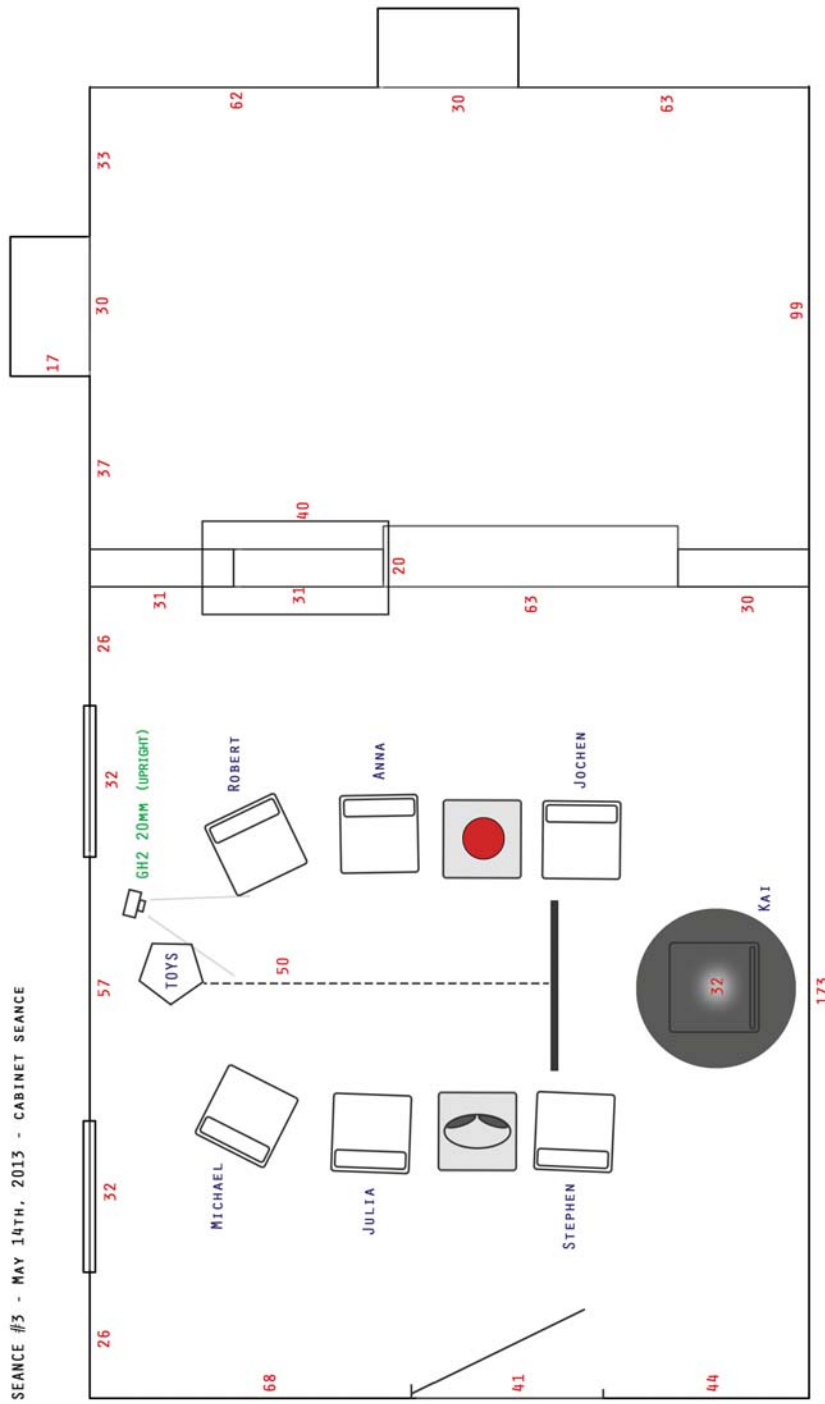


Figure 6. Seating at Séance 05-14-2013.

Robert) underneath the strip so that Kai could easily feel them with his shoes and thereby not pass beyond it. The reason for securing the bucket to the floor on only one side was to allow it to be lifted to ensure that nothing had been surreptitiously placed beneath it.

Robert, Michael, and I examined the entire room and its contents after setup was completed and then again a few minutes before the séance commenced. This inspection included a careful search of the cabinet, curtain, and curtain seam, and the process was documented on video. We also examined the black cloths used to cover the PK-target objects with their luminescent strips. These luminescent objects would ordinarily be charged and then set aside for the anticipated object-movement portion of the séance, but kept stashed away and covered near the red lamp to preserve the darkness of the room.

The room was locked at all times except immediately prior to a séance (to allow sitters entrance to the room) and during séance preparation. Whenever the room was open, an investigator was always present—usually either (or both) Robert or me, and briefly Michael as he swept the floor and installed his temperature gauge (which yielded no information of interest—the room temperature was basically constant throughout).⁸ Robert had one of his fisheye lens miniature GoPro video cameras running, as sitters were searched and during their entry into the séance room. He also videoed my walking downstairs with Kai after the strip search. His other GoPro camera was stationed in my bedroom upstairs, which was located directly above the séance room. This would have allowed us to determine whether knocks heard on the ceiling during the séance were caused by an accomplice in my room. In any case, the house was locked, certainly making it difficult (though not impossible) for someone to enter while the rest of us were locked inside the séance room.

Kai spent about 30 minutes, starting around 7:30, reviewing issues and procedures of the séance. He reminded us that although our goal for the evening was to document ectoplasm on video, HB and the Chemists had their own agenda and concerns. Moreover, he (Kai) was in no position to challenge them, since he could only receive communications and not respond, much less interrogate his communicators. So he warned us that the communicators might protest our plan to have Jochen operate the red lamp and control Kai from the medium's right side (rather than have Julia as controller from the right, which has been the usual practice for more than a year now). I was to be the controller on the medium's left side, and there was no question that this would be okay.

After the review session, Kai went upstairs to begin his trance. During this time, Robert instructed Julia as to the optimal red light settings for

video, and then Robert and I made a final review inspection of the séance room, which we again documented on video. As expected, the room and its contents had not been altered and we found nothing suspicious. Then Jochen and I went upstairs to conduct a strip search of Kai, who awaited us dressed only in his underpants and socks. I looked inside his underpants, checked his socks, examined the folds in his belly, looked inside his simple athletic shoes (no removable heel), and found nothing that could be produced as ectoplasm. Jochen and I also carefully inspected the clothing (sweatpants and t-shirt) that Kai would wear for the séance, and they too concealed nothing. Before leaving the room for downstairs, Kai took a large drink from his latest bottle of iced tea, as usual to help forestall the dehydration he experiences during his heavy perspiration in the cabinet (and during an ordinary day, for that matter). The iced tea again was black tea, which would presumably stain any material regurgitated by Kai. However, although the tea is dark, it's not opaque, and one can clearly see if objects are concealed in the bottle. As a further precaution, Robert supplied two water bottles and another iced tea bottle for the séance room, which he videoed me inspecting as we completed our final search of the séance room. Nothing suspicious or out of the ordinary was contained in the sealed bottles, and no one could claim the bottles were props which Kai introduced into the room.

After the strip search, Jochen led Kai downstairs to the séance room, and Kai again kept his arms raised with hands in full view as I followed the pair downstairs. Robert videoed this transit. I unlocked the séance room and led Kai inside. At that point (after Kai seated himself in the cabinet), we allowed the other sitters to enter as Robert and I patted down the male sitters to make sure they introduced no props into the room. Anna independently did a strip search of Julia. After this, I locked the séance room from the inside. The house had already been locked by Michael (and the key hidden, even from Robert), and a GoPro camcorder was placed in a far corner of my room upstairs, with a full view of the door and the entire room.

The séance then began around 8:40 p.m., and Kai went through his usual holotropic breathing fairly quickly. Once HB had announced himself and greeted the sitters, he noted that he understood the purpose of this gathering, and so he said he would skip the usual object-movement portion of the séance and concentrate just on the production and viewing of ectoplasm. He claimed that making target objects move at the far end of the circle would expend valuable energy, which he preferred to collect and store in order to document the medium extruding ectoplasm.

HB then insisted, as a precondition for the evening's program and to ensure that Kai's interests are protected, that we grant Kai the right to determine whether any videos collected from the séance are made public.

Neither Robert nor I had any problem with that request.

HB then asked to see which levels of red light were necessary for adequate documentation. After that, the medium retreated behind the curtains again to build up energy. While that was going on, most sitters reported seeing lights from within or around the cabinet, rather than traveling around the room (as is often the case during Kai's cabinet sessions). For example, I saw a bright yellow-white light inside the bottom front of the cabinet, and several of us saw a greenish faint glow from the top of the cabinet. So if the light was produced normally, it remains to be explained what device produced it and how it escaped detection during the strip searches and cabinet examinations both before and after the séance. (I'll deal further with that issue below.) If instead the light had been produced outside the cabinet, it would have been very difficult for the medium to have reached that location. Nevertheless, Jochen reported that he saw a smallish rectangular light on his side of the cabinet, clearly outside the curtains and very close to his face.

HB asked me to describe my strip search of Kai in detail, and then he asked whether under the circumstances Kai could have concealed anything that produced those lights. I replied modestly that I had found nothing that would account for the lights. Granted, I didn't perform a full cavity search, and so I can't guarantee that Kai had no light-emitting devices concealed (say) in his rectum. And since I hadn't taken rigorous steps to rule out clearly the regurgitation hypothesis, I can't say conclusively that Kai hadn't brought up a light from his gut (and then re-swallowed it or placed it in his rectum). But if that mere conjecture is the best a skeptic can do to explain the phenomena, much more is necessary to undermine the case for the paranormality of the lights. After all, as I noted earlier, we have decent evidence that, during object-movement portions of cabinet séances, lights and other phenomena occur at a distance from the medium while he's under full bodily control—that is, under conditions in which it's irrelevant to appeal to previously concealed light sources operated by the medium's body.

Next, during a period of singing and "energy-gathering," I and some others thought we heard rapping sounds from the ceiling. But there was so much noise from the music, singing, and shuffling in the cabinet, we could not be certain. There was also a brief period during which the cabinet curtains began to flap (I was touched on my right arm) and I and others felt breezes coming from the direction of the cabinet. HB said this was due to the Chemists concentrating the energy around the medium rather than in front of the strip on the floor outside the cabinet (as would happen during the object-movement portion of the séance).⁹

The medium then began to make choking and gurgling sounds,

suggesting the imminent arrival of ectoplasm. Soon thereafter, HB instructed Jochen to turn up the red light and for Jochen and me to open the curtain. Then we clearly saw the medium pull a large quantity of ectoplasm from his mouth, which fell into a pile on the floor in front of him. The video we captured of this, although very grainy after digital enhancement, clearly shows this action, and toward the end of the video, when the medium's left hand was not so close to his mouth, one can clearly see that the material is issuing from the medium's mouth and not his hands or near his bare arms (he was, as usual, wearing a short-sleeved t-shirt). The video also reveals the thread-like nature of the material's composition, during the brief period when the medium spread it with his hands. There was no odor from the material, or any evidence of the black tea or Kai's recent meal. It seems doubtful, then, that the medium regurgitated the substance. Now admittedly, Kai could conceivably have regurgitated his recent meal during the period when he was alone, prior to the strip search, and then swallowed some material to be regurgitated as ectoplasm. Indeed, many yogis practice the internal-cleansing ritual of *dhauti* in which they swallow a large (3"-wide, 1.25-meter long) strip of cotton.¹⁰ Nevertheless, since the ectoplasm was odor-free and showed no discoloration from the tea, it still seems plausible that it did not emerge from his gut or alimentary tract.

Jochen confirmed that, from his position, he could see the ectoplasm issuing from the medium's mouth. He saw Kai's left hand and fingers spread open, helping to stretch his mouth, and he could look under the hand to see that the material came from the mouth and not his hands. My view on the other side was initially blocked by Kai's left hand stretching his mouth. But he later moved that hand and used both hands to clearly pull more material from his mouth (Figure 7).

We next had a display of greenish glowing ectoplasm. The inspiration for this had apparently grown innocently out of some earlier discussions between Jochen and Kai about the early twentieth-century medium Franek Kluski having produced such a phenomenon.¹¹ HB asked Jochen and me three times to open the cabinet curtains, following short periods of singing and energy-gathering. The first time we saw a thin, glowing column of ectoplasm. This was followed by two more elaborate and impressive displays. In the first of these, the medium held and stretched out the ectoplasm with both hands, rotating it back and forth, and also clockwise and counterclockwise. Next, he held it in a kind of triangular shape and brought it very close to my face and then to Jochen's. I estimate that the ectoplasm was at its closest about 2 inches from my face (close enough to concern me that I might be hit by it and inadvertently injure the medium). As the material was stretched in different directions, I could clearly see

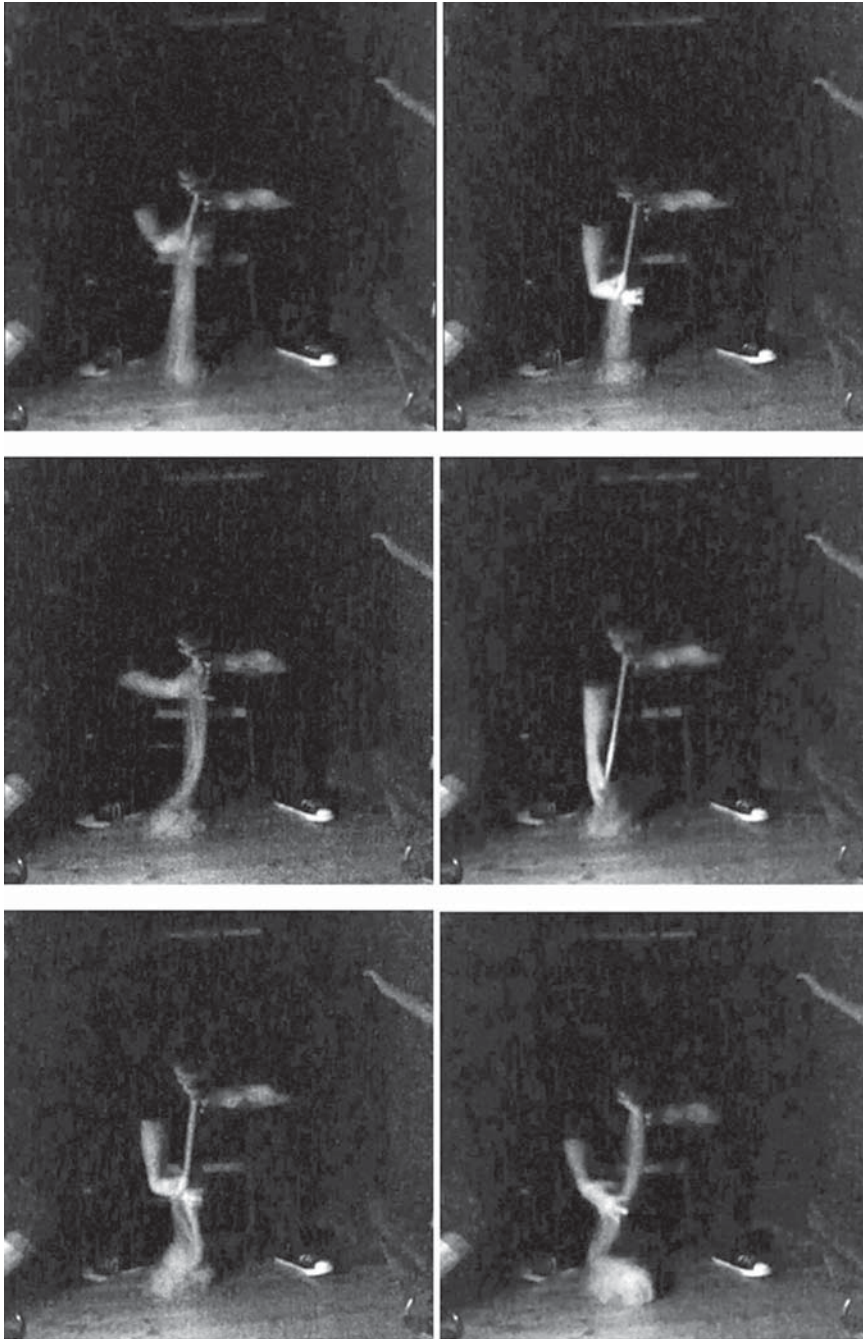


Figure 7. Extruded ectoplasm.

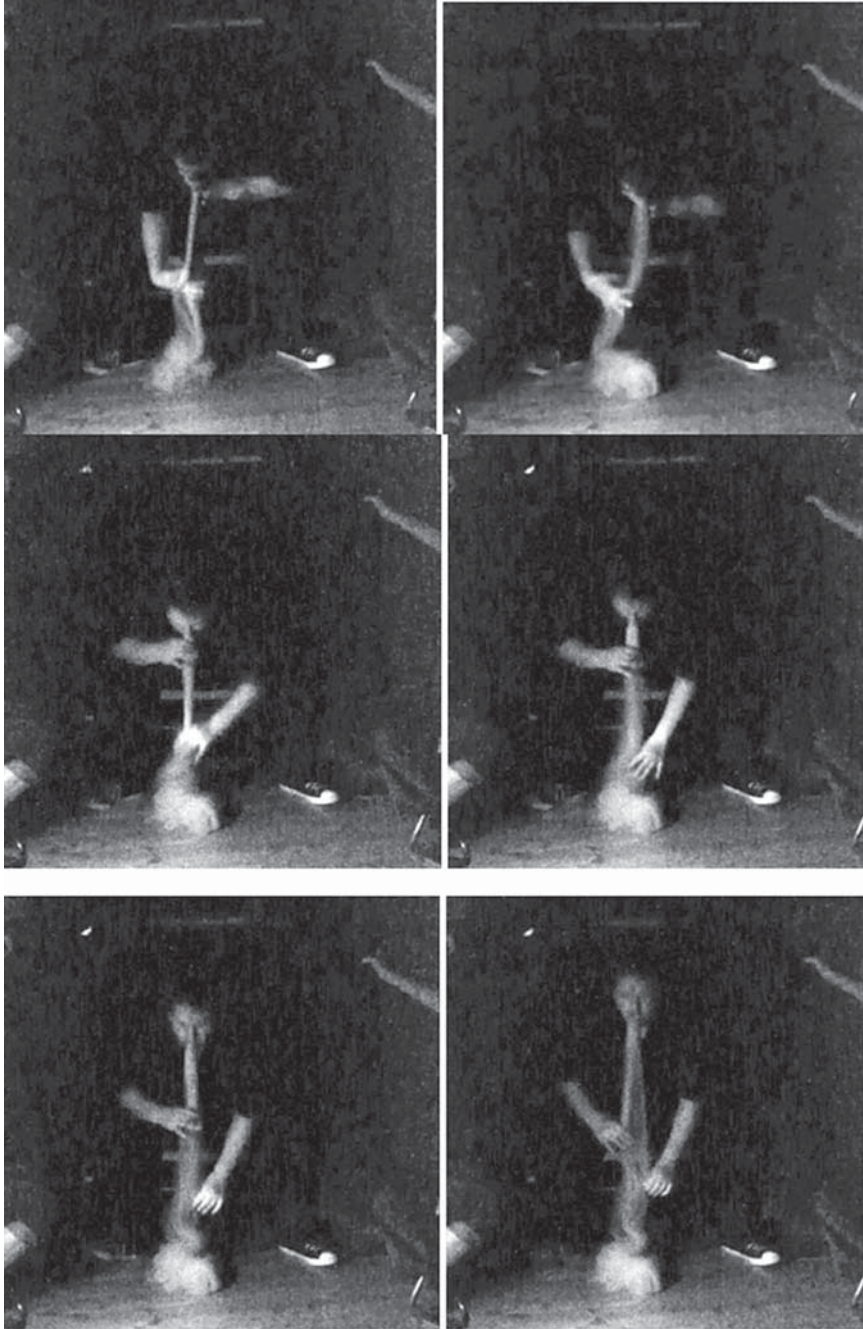


Figure 7. Extruded ectoplasm (continued).

that it had a fiber (or thread)-like, structure. Although some observers of mediumistic phenomena have reported odors from ectoplasm (e.g., that of semen or ozone), I detected no odor from the material, even when it was brought close to my face. The absence of an odor might also help deflect the suggestion that the medium's ectoplasm had been regurgitated or concealed in his rectum. I should also note that the material again had no telltale discoloration, either from food or from excrement.¹²

After this, we twice opened the curtains to view the mass of ectoplasm on the floor in front of and between the medium's feet. HB wanted us to see how it moved and seemed to breathe. But the level of red light HB permitted was simply too dim for clear observation. At first, it was too low for anyone to see the mass clearly at all. But then HB asked for the light to be increased slightly. At that point, I bent low, about 18 inches from the mass and could not clearly detect any movement. Perhaps that was because my head was positioned above the mass, because some others, farther back in the room and viewing the mass from the front, reported seeing slight movement on its right side. The video of this seems to confirm that report. It shows brief, small movement toward the end of the clip. Moreover, it also seems clear that the movement is not caused by the medium's foot, because his left foot (the one closest to the movement) is visible and flat on the ground, while his right foot remains active, sometimes partially visible, and audible. Indeed, it's standard procedure for the medium's right foot to tap loudly in order to indicate when to open and close the curtains.

The final ectoplasm display was of Kai completely covered by a "netting" of material from his head to the floor. This "cocoon" is typically created when Kai takes the ectoplasm (either still on the floor or already within his hands), stretches it, and covers himself with it. Allegedly, this re-energizes the organism, although on this occasion it was followed by Kai's premature awakening from trance and thus to the official closing of the séance. A very faint image of the cocoon was captured on video. It revealed that the cocoon was wrapped around Kai and clearly connected to the mass of ectoplasm on the floor. It showed Kai moving the material with his hands, but it was not clear enough to confirm sitters' impressions that the ectoplasm seemed to be of one seamless piece. That impression, if correct, is interesting because the earlier, glowing, ectoplasm was spread and torn and revealed gaps between the parts of the material. So it's an open question whether the cocoon was new material or whether it was a repaired version of the previous material.

The medium's emerging out of trance happened behind the closed curtain. So we were unable to observe what happened to the netting we had just seen covering him. But as I note again below, subsequent observation

of both the cabinet and Kai immediately after the séance revealed no hidden netting, and no remnants or moisture on the floor.

It's also worth mentioning that during the darkened portions of the séance, sitters' hands were accounted for. Jochen had one hand on the curtain (ready to open it at a moment's notice) and the other on the lamp controls (ready to turn it on at a moment's notice). I had my right hand by the curtain and my left hand holding Julia's right hand atop the CD player. All other sitters had hands joined. Jochen and I needed to be ready with our hands next to the curtain, awaiting the stomping sound of the medium's foot, signaling us to either open or close the curtains.

After I unlocked the door, the sitters filed out of the séance room. I remained behind to examine the room and cabinet, and to observe Kai recover from the trance. He appeared as if he needed to vomit into the bucket kept at his side for that purpose, but I observed afterward that the bucket contained nothing but some moisture (presumably from spit) and two mostly dry (and odorless) paper towels Kai used to dab his mouth and face.

In the meantime, at Kai's urging, Jochen conducted another strip search and reported to me that nothing suspicious was found on Kai's person or in his clothes.

The entire time of the séance was approximately 1:40.

TABLE SÉANCE 05-16-2013

Sitters were arranged as in the previous table séances. From the start, Kai said he was concerned that there would be no phenomena, because he was tired from the previous three séances, and because he said that in nearly nine years of mediumship he'd never been able to have more than three successful séances in one week. But apparently inspired by our earlier results, and intrigued by what he'd seen of Robert's GoPro cameras, he was eager to try a table séance with Robert's conventional video camera positioned as before, supplemented by a GoPro attached to my chest.

Julia's right hand throughout rested on the red light control (awaiting Kai's instructions to turn it on, but sometimes turning the light on under her own volition), and occasional periods of illumination revealed that sitters' fingers were lightly touching the table top, hanging down (as it were) with palms raised.

By comparison to the earlier table sittings, this séance was, indeed, disappointing. The table slid and rotated dramatically on the wooden floor, and partially levitated (usually in darkness) a few times. Turning on the red light tended to snuff out or decrease the table movement, even when the

sitters closed their eyes (just in case the inhibiting factor was not the light itself or our knowledge that it was on, but rather the sitters' perception of it).

During a short break after nearly an hour of this activity, we decided to place carpet under the séance table. This would prevent the table from sliding along the floor, and Kai suggested that it would force the energy to concentrate instead on raising the table. Under these conditions the table shuddered dramatically and seemed to make efforts to rise up. We also had three brief partial levitations, captured in part on video. Still, we couldn't rule out the possibility that one or more sitters could consciously or unconsciously simulate the table's movement on carpet under these conditions.

After Kai unsuccessfully challenged the spirits with an ultimatum to end the séance if they didn't produce better results, the session was brought to a close.

Perhaps surprisingly, this negative séance may in fact be a positive result. If, as some magicians like to allege, it's so easy to raise a levitated table with one's hands or just one's thumbs, Kai had ample opportunities in both darkness and dim red light to make it happen. Granted, Kai could have been feigning exhaustion—that can't be ruled out in principle. But it seems more likely to me that if Kai were nothing but a fraudulent medium, he would have availed himself of the opportunity afforded by darkness to impress us further, rather than go through what would have been the fruitless charade of installing the carpet and presenting the spirits with an ultimatum.

Comments on the Austrian Sitzings

The video of the table levitation is certainly interesting, and I believe that the levitation was genuine. But of course the video would be more convincing if Kai's thumbs were visible above the table. So, since neither Jochen nor I (seated to Kai's sides and controlling him) can attest to having controlled Kai's thumbs, subsequent attempts at recording the phenomena clearly need to be conducted under better illumination, with more cameras, and with more sensitive cameras (which we've since obtained), or of course while clearly holding Kai's entire hand in ours. Regrettably, so long as FEG séances require Kai and others to be in contact with the table, the evidence for the genuineness of the levitations will never be as persuasive as those from stronger cases of physical mediumship—for example, the Palladino levitations from the 1908 Naples sittings, which often occurred out of Eusapia's reach (Braude 1997, 2007, Feilding 1963, Feilding, Baggally, & Carrington 1909).

The apports must be rated as less evidential still, simply because Kai was not searched prior to the séance and because in these cases it's

especially difficult to rule out masterfully applied sleight of hand. However, both apports occurred in decent red light, good enough to see Kai's extended arm, hand, and fingers clearly, and also (in the case of the crystal) while a flashlight was shone directly into Kai's mouth.¹³ The copper apport remains especially intriguing, though, in view of the fact that it seems to have been produced as a typical Kai reaction to something that had recently commanded his attention and fascinated him. I had shown Katie's golden (brass) foil to Kai only a few hours earlier, and he presumably had no opportunity during that interval, while still at the farmhouse, to come up with a nugget of copper. None of the rest of us had ever before seen a copper nugget, and it's at least credible that Kai was truthful in saying that he too had never seen one. This apport was the first such object ever to appear in an FEG sitting; FEG apports are routinely collected by Kai in a display case back in Hanau; and they are also reported on the FEG's blog. Had there been previous copper nugget apports, the event would not have been kept secret. Of course, it may just be a matter of remarkable serendipity that a fraudulently apported copper nugget was so appropriate to unanticipated events occurring shortly before the séance. But although that can't be ruled out in principle, I consider it highly unlikely that Kai would have traveled to Austria armed in advance with a copper nugget, the significance—indeed, the whole point—of which turned out to be tied closely to an event that he couldn't have predicted.

Moreover, as I noted earlier, Kai's bare right arm and spread fingers were fully visible when the apport appeared, and Jochen had been visibly feeling up and down that arm while I controlled Kai's left hand and foot. Furthermore, the audio recording of this event documents dramatically how loudly that apport struck the table, as if it had been forcibly propelled there and bounced off the table. But if that action had been initiated by Kai's right hand, I believe it would have been seen clearly by all the sitters. And there was certainly no contraption in the room that could have produced that effect. Now, I must note that I've seen an apport drop from magician Jeff McBride's bare arms.¹⁴ However, I did not observe or examine his hands on that occasion, whereas Kai's exposed hand, spread fingers, and arm were fully visible while Jochen ran his own hand up and down the arm. Moreover, Jeff's apport was dropped softly, as if it was simply released from a place of concealment; it was not propelled forcibly as Kai's apport was. I believe it's correct to say that a conjuror would need some kind of overtly visible effort or attempt to make the apparently apported object move so vigorously under the conditions at our séance. But we observed nothing of the kind.

The ectoplasmic manifestations, although produced under decent conditions of control (in stark contrast to those allowed with any other

current physical medium), were likewise produced under conditions that can (and should) be tightened further. As I noted above, it's not all that easy to defend the skeptical suggestion that Kai hid the ectoplasm at some point either in his rectum or his gut. And that suggestion seems even more implausible when we recall that Kai would have needed to swallow or conceal inside him, not simply the mass of ectoplasm (including the hand, arm, and column seen in Hanau) but also any devices he used to produce lights and other phenomena occurring during the cabinet séance but not discovered in the cabinet or séance room when the sitting was over. Still, given the current suspicion legitimately attaching to some of Kai's phenomena, more needs to be done to rule out those options. I'll comment more on this below.

Moreover, after learning of Nahm's conjecture that Kai manipulated the mass on the floor by means of strings pulled by hands placed behind his body, I viewed our video footage again of the moving mass on the floor. Although the video is very dark and outlines of Kai's arms are extremely dim, it's nevertheless obvious that Kai's hands are behind him, apparently hidden. Kai's arms are partially visible, also placed behind him, and they seem to be moving, although that might be an artifact of the digital noise. In any case, why should Kai's hands be behind him during this display? If Kai had been doing nothing to manually manipulate the ectoplasmic mass, his hands could have rested on his knees, where they would have been visible in the red light. There may be an innocent explanation for this, but under the circumstances it can only fuel suspicion.

Certain features of a Kai cabinet sitting are probably doomed to arouse suspicions in some people—including, of course, darkness, the cabinet itself, and the alleged need to retreat behind the curtain. Many would also point suspiciously to the loud singing requested by HB which could be interpreted as providing covering noise for furtive actions within the cabinet. Kai (or HB) maintains that the music and singing help concentrate energy within the cabinet, and for all we know that might be the case. So I believe we must acknowledge and respect this common feature of a spiritist belief system and work around it as much as possible. And indeed, the resourceful experimenter still has many control options available, at least in principle. In the next section I'll comment further on this matter.

It's also unfortunate, and perhaps needlessly suspicious, that the disappearance of the ectoplasm occurred out of sight, in the cabinet. Still, it's not obvious that the ectoplasm's disappearance must be attributed to conjuring. I found nothing suspicious, and certainly no trace of the material, in the cabinet when the séance ended, and Jochen found nothing when he strip-searched Kai afterward. Granted, we can't positively rule out that the

material found a temporary home in one of Kai's orifices (fore or aft). But (in addition to problems noted above in sustaining that conjecture) various additional proposed controls, discussed below, should help rule that out.

I should note that I've seen Jeff McBride pull a mass of paper "ectoplasm" out of his mouth (something which can be compressed initially to a very small size and placed in the mouth),¹⁵ which, after he collected it, he then made vanish with a clap of his hands. I've learned that there are devices that magicians can conceal in their sleeves that can rapidly retract the expelled material. Of course, I didn't strip search Jeff in advance or examine his clothing (or even just the roomy sleeves of his kimono) prior to his demonstration. But it's highly unlikely that Kai, who was wearing a short-sleeved t-shirt, had any such accessories at his disposal and which escaped notice in the strip search and inspection of his clothing and the cabinet. As magician Loyd Auerbach wrote me after viewing my slides from the videos and studying an earlier version of this paper, "The problem is disposal of the material afterward. [It's] one thing to hide a compressed packet, quite another to get rid of or re-compress the material" (personal communication November 21, 2013).

Kai seemed quite encouraged by the results of these sittings, and he at least seemed eager to introduce more cameras and better light into the proceedings. He's well aware and proudly informs others that he's the only physical medium currently consenting to any respectable controls, and he's also aware that good video documentation of his phenomena could secure for him a significant place in parapsychological history. Furthermore, if Kai's discomfort with video recording is what it seems to be and is not simply a ploy to avoid exposure, I believe he can gradually come to feel more comfortable with multiple cameras pointed in his direction, just as people repeatedly interviewed on camera gradually adjust to the presence of cameras and eventually stop noticing them. That's why I left Austria feeling hopeful that future sésances would yield even better results.

Concluding Comments

Of course, now the picture is murkier than it was in Austria. Michael Nahm (in this issue) presents a compelling, though still largely circumstantial, case for regarding some of Kai's phenomena as fraudulent. Moreover, to complicate matters further (and as Nahm also recounts), Kai has recently confirmed that he purchased, from a Halloween supply store, both luminous (green) and non-luminous cobweb material resembling at least some of the material displayed as ectoplasm in FEG cabinet sittings. Kai sent me a video he had made, but never posted online, in which he attempted to demonstrate how different that material was from the ectoplasm from his sésances. And

in very recent emails to me, Kai claimed that he bought the material to evaluate suspicions he'd heard in 2012 about his having used Halloween-type cobweb to simulate ectoplasm. But after making the videos and assuring himself that there was no resemblance, he decided not to go public with this because (he said) so many people experience the entire mediumistic act as genuine (implying, to me at any rate, that some of the mediumistic act is *not* genuine), that he didn't want to raise suspicions needlessly about a single allegation concerning material that didn't resemble his ectoplasm.

However, Kai's communications on this matter only raised additional questions and concerns, and one doesn't have to be a rabid skeptic to figure them out. First, I'll concede that the non-luminous ectoplasm I've seen doesn't look like the material shown in Kai's video. The non-luminous ectoplasm I've observed, especially the fine netting covering Kai like a cocoon, looks more like a fine cloth than the more clearly synthetic and stringy material of the cobweb in Kai's video. But the luminous cobweb Kai manipulated in his video looks very much like the glowing green ectoplasm I saw in Austria. Moreover, Michael Nahm has also purchased some Halloween cobweb and informed me that there are different kinds and qualities of cobweb, and that the material he bought, right out of the bag, looks different from, and more condensed than, what Kai displayed in his video. It may be, as Nahm suggested, that Kai's material had already been manipulated and stretched thin. Second, Kai claimed he heard about suspicions concerning the cobweb in 2012, and he seems to say that he produced his video clip at that time. But I know that Kai purchased cobweb in late 2013, and that he purchased non-luminous material in an amount—one kilogram—considerably greater than what would be needed (say) just to satisfy his curiosity about what the material looked and felt like and how it behaved (the material *is* available from that vendor in a 500 g size). Third, one can only wonder how Kai can evaluate the similarity between the Halloween cobweb and the material produced while he's ostensibly in trance. If Kai is genuinely in trance, then he's not actually aware of what the ectoplasm looks or feels like. He can only know what it's like from underexposed or blurry still photos or videos. So in fact, one would think that sitters can speak more authoritatively about the resemblance than Kai can. Finally (and perhaps most important), even if Kai's reason for withholding information about the cobweb from his followers is defensible (and I'm not sure it is), he has no such reason for withholding it from his investigators, especially those with whom he ostensibly had open and honest communication. Nevertheless, when Michael Nahm asked Kai recently whether he'd ever seen or heard of the fake cobweb, Kai said he hadn't.¹⁶ Kai told me about his purchase and testing of the material only in May, 2014, after he learned that I and my

colleagues had been alerted about the matter. The news of Kai's purchases also was a revelation and disappointment to Jochen, who is much closer to Kai than either Nahm or myself.

Moreover, to make matters worse, based on confidential communications I've had with both Kai and Jochen, I would say it's now indisputable that on some occasions Kai used something at least similar to the magician's D'Lite Flight to produce a moving light while pretending to be in trance. The reason for my confidence in this matter is as follows. During a Skype conversation recently with Jochen, I asked him directly whether Kai had confessed to using a device to produce the moving light described by Nahm. Apparently, the directness of my question took Jochen by surprise, and he hesitated for some time, evidently struggling to figure out what to say. The reason for this seemed obvious. If Kai had never admitted to some fraud, Jochen could easily have said so. So I inferred that Kai had made some sort of admission and sworn Jochen to secrecy. Because I know Jochen still believes that some of Kai's phenomena are genuine and doesn't want to jeopardize his relationship with Kai and thereby lose his opportunity to investigate those phenomena, and because Jochen is an honorable man, my question put him in the position of having to lie to one friend to keep a promise made to another, and he was commendably unsure what to do (and thus didn't directly violate any confidence). I confirmed my understanding of what had happened in a subsequent Skype conversation with Kai. I told Kai why, on the basis of my talk with Jochen, I now knew that he'd cheated and only feigned being in trance on some occasions. Kai could and should have challenged my inference if he felt that it was unwarranted. Instead, he offered no protest (indeed, he couldn't even look at me through most of our talk). Instead, he apologized many times and made some general and not altogether clear comments about the differences between public sittings and séances conducted for scientific scrutiny. Indeed, in subsequent emails Kai has repeatedly taken pains to distinguish his public demonstrations from the sessions conducted under my supervision. It's difficult not to see that as a tacit admission that at least some phenomena at the public séances may be faked. At any rate, although my Skype conversation didn't elicit an explicit confession, I consider Kai's response to my challenge to be functionally equivalent to one.

However, it's important not to get carried away with skeptical enthusiasm. I should also note that most of the moving-light phenomena I've observed were quite different from those that can be produced by a device similar to the D'Lite Flight. Indeed, during my 2010 trip to Hanau, in the portion of the table sitting recorded with hi-res IR video, I observed a bright light hovering between my legs. I was seated several sitters away

from Kai, near the far end of the table from his position, and although the IR video would clearly have revealed the deployment of a device or any suspicious movements on Kai's part, nothing in the video arouses concern.

In general, none of the light phenomena I've observed—with the possible exception of the lights within the cabinet in Austria—resemble effects that could be produced by something like the D'Lite Flight. That's at least consistent with Kai's repeated assertion that those phenomena occurred only during a relatively short period of his mediumship. Of course, the sinister interpretation of this is that Kai abandoned that trick when others started to express their suspicions about the light phenomena, and from what I can gather those opinions were indeed expressed around that time. Besides, Nahm has challenged Kai's claim that the suspicious light phenomena occurred only briefly in 2011. In any case, as Nahm also notes, some features of Kai's ectoplasm (including the ectoplasmic "arm" and "hand") captured in still photos, also arouse suspicion. And it may be significant that, although I observed the hand/arm phenomena in Hanau, they were not part of the more scrupulously controlled Austrian séances. It would not be unreasonable to suggest that under the conditions of control in Austria, which included a more thorough inspection of the cabinet than the one I'd conducted in Hanau (and much better control of the séance room), Kai was unable to introduce whatever strings or contraptions he might have used on other occasions to manipulate the mass of ectoplasm between his feet.

Moreover, in connection with Nahm's suggestion (in this issue) for Kai to dispense with the bucket he brings to the cabinet, we might now reasonably raise a few concerns about that object. The original explanation I heard for the bucket was that Kai occasionally needs to vomit after the cabinet sitting is over. However, it's easy to generate a sinister interpretation of this as well. For one thing, I'm not aware of any *recent* occasions (or any in the past several years) in which Kai has actually vomited into the bucket (and I would welcome evidence to the contrary). But then a skeptic could sensibly propose that in the early days of Kai's fraudulent ectoplasm, he hadn't yet really mastered the process of swallowing the material after extracting it from its former hiding place (such as his rectum), and so occasionally and quite understandably he'd gag and vomit after trying to ingest it. Furthermore, the skeptic could propose that after Kai mastered the art of swallowing the ectoplasm, he would have private time, soon enough after the séance, to bring it back up and dispose of it. For example, in Austria, Kai would have needed to keep the material in his gut only long enough to come gradually out of his "trance," and then for Jochen to conduct his post-séance strip search. That interval would be no more than 10 minutes, well

within the time limits recommended for dhauti practitioners. I hasten to add that I'm not prepared yet to endorse these skeptical suggestions, but in the present circumstances they don't seem quite as outlandish as they might otherwise.

In any case, I have to say that my experiences with the FEG have been less overtly suspicious than those on which Nahm's more thoroughly negative appraisal relies, though (as we've seen) various, and possibly innocent, incidents or features of those séances can now justifiably be treated with more suspicion than before. In fact, it may well be the case that in Austria the tighter controls forced Kai to rely only on what he could genuinely produce, and perhaps that's why Kai's Austrian phenomena were fewer and less spectacular, and why nothing of much interest occurred in Kai's fourth séance. But I should also add that I've had fewer sittings than Nahm with the FEG, and so (the critic could argue) fewer opportunities for Kai to successfully execute a trick. Nevertheless, even in Nahm's view, some of Kai's phenomena are not so easily dismissed as fraudulent, and both Nahm and I agree that some of the best evidence for macro-PK comes from cases of mixed mediumship (the Palladino case is perhaps the best example). So the challenge now is to determine to what extent there's a residue of untarnished and more convincing FEG phenomena, and of course whether any of the phenomena produced under my supervision continue to survive scrutiny.

One problem, of course, is that Kai remains wary of working in the light, although he's grudgingly (but only occasionally) permitted very low illumination, and even then only for relatively brief periods of time. And, despite our success during my second Hanau visit in capturing a table levitation with an infrared camcorder, Kai (or HB) has since refused requests to permit additional infrared video. This inevitably troubles even open-minded observers, especially since the red lamp used for the séances generates at least as much IR energy as the beam from my IR camcorder.

Of course, if Kai used the D'Lite Flight (or something similar), then we have to entertain seriously that his knowledge of magic tricks extends beyond that single device. It seems highly unlikely that Kai simply discovered that one trick and nothing else. Indeed, we have to consider that at some point Kai conducted a search for magic devices, either on his own or by consulting someone knowledgeable. As Robert said in an email to me, "The intricacies of finding, acquiring and learning modern magic tricks surely require more directed effort and premeditation than, say, Eusapia's leg pushing up the leg of the table. It would be unreasonable to assume that Kai would (a) direct his efforts to one single gimmick only, or (b) that while researching that gimmick he wouldn't come across a lot of other 'suggestions'" (personal

communication 4/12/14). All of this further erodes the confidence we can place in Kai's cabinet phenomena, and perhaps all of his phenomena. But again, that loss of confidence can be neutralized if Kai successfully submits to more stringent (and not necessarily heroic) controls. For what it's worth, Kai continues to claim that he's ready to conduct further tests with me, and he once again agrees (now, at any rate) to tighter controls.

Another problem is that, even if we ignore the case for fraud presented by Nahm and also Kai's oblique confirmation of the faked light phenomena, we can easily see why many would reasonably suspect Kai of resorting occasionally to trickery. First, Kai gives *séances* (actually, *public demonstrations*) with considerable frequency, and he seldom has a failure or negative *séance* in which no (or almost no) phenomena occur. That's quite remarkable, especially for a medium who claims to be less prodigious than the greatest past mediums, all of whom had many negative *séances*. Even D. D. Home lost his powers for an entire year. Moreover, on Kai's travels (throughout Europe, coast-to-coast US, and several times to Australia), he's often been quite exhausted, both from the rigors of traveling, his customary lack of sleep, and also from the intensity and apparent physical strain of the *séances* themselves. We saw, in our last Austrian *séance*, how an exhausted Kai was unable to mediate even a modest table levitation. But of course, it's one thing to have a largely negative *séance* (after three successful sessions) for experienced investigators, none of whom would find a negative *séance* a cause for alarm or suspicion. And it's another thing to disappoint paying customers who expect to see miracles.¹⁷

It may well be, as Jochen recently suggested to me, that most (if not all) the great mediums were "mixed" mediums—that is, combining genuine with fraudulent phenomena. After all, from a business perspective a medium's occasional recourse to fraud is not difficult to understand. That naturally complicates the process of establishing the authenticity of the strongest phenomena. But so long as those phenomena are thoroughly controlled, as they have been in other, and more impressive, cases from the history of physical mediumship, the challenge is manageable, and a medium's lapses don't automatically discredit the best-documented and controlled phenomena.¹⁸ Again, the case of Eusapia Palladino perhaps illustrates this most dramatically. So it seems that the general strategy for evaluating a case of mediumship remains the same whether it appears to be an instance of mixed or "pure" mediumship. In all cases, the phenomena that matter are the ones most difficult to explain away.

My view du jour is that the most impressive of Kai's phenomena are the table levitations and the object movements occurring at a distance under four-limb control of the medium. Nothing uncovered so far about

Kai's deceptions justifies discounting those manifestations. So at this point, the resolute skeptic wanting to impugn everything Kai has produced can only fall back on general, though admittedly reasonable, doubts about Kai's character. But nothing of interest follows from that about Kai's best-controlled and documented phenomena. Indeed (as I noted above), the history of (mixed) physical mediumship illustrates the point clearly.

The apports will remain of marginal value at best so long as Kai is not subjected to the sorts of controls required in connection with the ectoplasm.¹⁹ Similarly, the manifestations of ectoplasm, the most dramatic of Kai's phenomena, still need to be better-controlled. I've suggested to Kai several easy steps we could take for our next Austrian sessions to strengthen the case for the genuineness of the ectoplasm. First, we could supply our own cabinet. Kai readily (actually enthusiastically) agreed to this, because (a) it's one less thing to carry on his travels, and (b) it's obviously not an issue for him—indeed, he's often had his hosts in other countries supply the cabinet. Second, we could sew Kai into a one-piece jumpsuit, in order to counter the suggestion that he's retrieved ectoplasm hidden in his rectum. There's already a precedent for this, both in the cases of Eva C. and in connection with the thoughtography of Ted Serios (Braude 2007, Eisenbud 1967, 1989). In a recent conversation, Kai agreed to this control as well. Alternatively or additionally, we could adopt the clever procedure used in the case of Charles Bailey (Irwin 1987) and seal Kai's hands in boxing gloves prior to the séance. That would help counter any number of skeptical suggestions about Kai's ability to retrieve and manipulate ectoplasm and other devices for producing physical phenomena. However, Kai's reaction to that suggestion was notably cooler than to the proposal about a one-piece suit; one can only wonder why. And of course, we could have Kai drink blueberry juice or syrup just before the séance, to help counter the regurgitation hypothesis. Kai knows about the application of these controls in cases he already admires, and so we can only hope he (or HB) will allow them later. Time will tell. If (despite his earlier assurances) Kai fails to submit to these tighter conditions, it will only raise more doubts, even among those with open minds. And in that case, if we hold further sessions in Austria, it might be more productive and illuminating to concentrate on the object movements under four-limb control, and also the table levitations under better illumination.

A very recent development in the FEG mediumship is that sitters have been allowed to touch the ectoplasm. That may allow us, if there really is a next time, not only to feel whether Kai's ectoplasm resembles fake ectoplasm or other materials available from magic or Halloween stores, but also to capture some small portion of the material which we could

subject to analysis. Prior to this, Kai (or HB) had refused to allow sitters to touch the ectoplasm, on the standard spiritist grounds that doing so could harm the medium. But that explanation is clearly unconvincing. After all, the ectoplasm falls from the medium's mouth onto the floor, and to my knowledge that contact never harmed the medium. In any case, perhaps the most impressive thing Kai could do to establish the genuineness of the ectoplasm would be to allow us to view and document the disappearance of the ectoplasmic "cocoon" and its alleged re-absorption into Kai's body, which sometimes apparently happens nearly instantaneously.

I understand the often instinctive suspicious reaction many have when reading accounts of mediumistic séances conducted under low illumination or in total darkness. Likewise, I understand the retrospective negative or skeptical reactions investigators experience when they reflect back on what previously seemed like convincing demonstrations (for a good example of that phenomenon, see Richet 1899:157). Indeed, I've had these reactions myself on many occasions. However, I believe we must remain open to the possibility that both light and attention, and indeed the medium's beliefs and fears (rational or otherwise), can inhibit genuinely paranormal physical phenomena. The entire history of physical mediumship suggests as much, as do more recent experiments in table-tipping (see, e.g., Barham 1988, Batcheldor 1966, 1984, Brookes-Smith 1973, Brookes-Smith & Hunt 1970, Isaacs 1984). In fact, we need to bear in mind that, at our current and considerable level of parapsychological ignorance, we should be especially circumspect in making assumptions about the conditions favorable or unfavorable to the production of phenomena, or about the forms in which the phenomena should manifest. Feilding addressed the point nicely, in connection with Eusapia's séance preferences.

... I cannot explain why she wished to do these things, any more than I can explain many other items in her procedure, such as why she should wish to have a table, or why she should require a curtain at all. I find, in talking with friends, that when I mention the curtain, they inevitably say, "Ah, a curtain! Why a curtain? What a suspicious fact!" I agree that it may be suspicious, but it is not necessarily so. It is suspicious when used by a materializing medium who goes behind it, and, when a "spirit" comes out, refuses to allow spectators to ascertain whether he is himself still there. But in Eusapia's case, where she sits outside it, I cannot see that, given certain obvious precautions, it is necessarily suspicious. She says it helps to "concentrate the force." Perhaps it does. I do not know what the "force" is, nor what it requires to "concentrate" it. Nor does anyone else. To a person ignorant of photography it is possible that the use by the photographer of a black cloth over his head would be suspicious. In dealing with an unknown force one can only judge empirically of the utility of certain conditions. That the curtain does have

some bearing on the phenomena is clear. Eusapia appears to be en rapport with something within. And she constantly seems to experience the necessity of establishing this rapport by momentary contact with the curtain or by enveloping the table or part of herself in its folds. We never perceived, however, that the phenomena which followed this action had any normal relation to it whatever. (Feilding 1963:107, Feilding et al. 1909:397)

I also remind and encourage readers and investigators to heed the advice of Oliver Lodge, who counseled researchers to

... have the common sense to treat [the medium] not as a scientific person engaged in a demonstration but as a delicate piece of apparatus wherewith they themselves are making an investigation. She is an instrument whose ways and idiosyncracies must be learnt, and to a certain extent humoured, just as one studies and humours the ways of some much less delicate piece of physical apparatus turned out by a skilled instrument-maker. (Lodge 1894:324)

Thus, since it still seems premature to discount all FEG phenomena as fraudulent, I believe we should try to keep an open mind, first, about whether Kai has any paranormal abilities at all, and second, if Kai does have some PK ability, then about his expressed beliefs concerning the conditions which either enhance or inhibit his phenomena. As far as the latter issue is concerned, it would take nearly transcendental hubris to claim that we know significantly more about these matters now than Fielding knew a century ago. Still, in the current and justified atmosphere of suspicion, we should nevertheless hold Kai to a higher level of evidentiality than he's so far attained, closer to that enforced in other, better-controlled, cases of mixed mediumship. For now, then, it wouldn't surprise me if, after the smoke clears from investigating the extent of Kai's deceptions, it turns out that (as he originally claimed) he really is just a modestly endowed psychic subject, and that the familiar and understandable frailties of greed and arrogance, and the lure of fame and adulation, led him to his present predicament.

Moreover, as I mentioned earlier, resourceful experimenters can find ways to circumvent several (if not most) of the obstacles Kai has routinely placed in the way of optimal controls. I believe we've already succeeded to some extent in doing that. But we clearly need to go further, and I've noted above some obvious and relatively painless next steps we could take to improve the quality of documentation. It seems clear that if Kai wants to salvage or rehabilitate his reputation, he must now voluntarily submit to—and succeed under—many test conditions he's so far resisted. In fact, he at least has to *try*. So long as Kai continues to resist better conditions of illumination and observation, especially those in which other carefully

investigated mediums have succeeded, his mediumship will be tainted and remain an easy object of skeptical suspicion, even if some of his phenomena remain hard to doubt.

Of course, there will always be skeptics, no matter how many precautions are taken. So, practically speaking, investigators may simply have to acknowledge a law of diminishing returns in applying controls. Besides, it would hardly be surprising if at some point (given human psychology), continually tightening controls simply snuffs out the phenomena. And how readily that occurs will undoubtedly vary from one subject to the next, just as our inhibition-thresholds vary widely in many familiar life contexts. I believe that's one reason why laboratory phenomena are so modest compared with phenomena in natural settings, if the phenomena can be duplicated at all in the lab. As I've argued elsewhere (e.g., Braude 1997, 2014), since we really are nowhere close to knowing what psi's natural history is (i.e. its function or purpose—if any—in real-life settings), for all we know it may be similar in crucial respects to familiar phenomena or abilities (e.g., sexual performance, athletic skills) that can only be evaluated in their natural contexts, not in the straitjacketed conditions required for formal experiments.

Notes

¹ In a private meeting with noted magician Jeff McBride, Jeff claimed that table levitations can be simulated with a four-legged table by using only two thumbs. Jeff tried demonstrating this to me with one of his own tables. He was indeed able to raise that table, but its movement was not nearly as smooth or level as those I've experienced with the FEG. In fact, when Jeff "levitated" the table, it was obviously forcefully and rapidly *pushed* up, whereas Kai's table levitations (in my experience) have always felt like they were *floating* upward. Now admittedly Jeff's table was different from and heavier than Kai's, and Jeff claimed that one only needed more practice to simulate smoother levitations. However, although I have great admiration for Jeff's expertise and knowledge of mediumistic tricks, I think one needs to take this assurance with a grain of salt. Although Jeff is not biased against the possibility of psi phenomena generally, he's clearly and antecedently convinced that all *mediumistic* phenomena are fraudulent. So it's difficult to say to what extent Jeff's confidence on this matter resembles the empty assurances concerning mediumistic fraud often expressed by magicians. It remains true that I and others have been unable to raise Kai's table (or the table from the Austrian sessions described below) using only our thumbs, and in any case I doubt that this explanation would suffice for the many accounts (from other FEG séances) of the

table rising to the ceiling and remaining there for several seconds. That explanation also fails for the infrared-documented levitation described below, occurring in our last séance, where Kai waved one of his hands above the table as it rose, imitating one of Palladino's familiar gestures.

- ² For more details on the arrangement of the room during an FEG cabinet séance, see Michael Nahm's essay in this issue.
- ³ For more on Eva C., see, e.g., Barrett 1919, Geley 1922, 1927/1975, Schrenck Notzing 1923a, 1923b, and the summaries of the case in Braude 1997 and Inglis 1977. Eva also submitted to rather extreme measures to comply with proposed controls. She permitted full-cavity searches and drank an emetic after the séance to counter the charge that she simply regurgitated and then re-swallowed the material produced during the séance (and which in any case often appeared *outside* the veil of tulle that covered her face and head).
- ⁴ These were non-evidential and not impressive enough to merit attention here.
- ⁵ I should add that I don't consider it intrinsically suspicious that séances and trance workshops now constitute a major source of income for Kai. Granted, Kai enjoys the attention and adulation of his sitters and workshop participants, and granted the work is very steady. But Kai charges far less than mediums (such as David Thompson) who don't allow for serious control—indeed, Kai's fees just manage to defray his travel expenses; and Kai is able to pursue what are clearly his lifelong interests.
- ⁶ According to Michael Nahm's audio recording of the session.
- ⁷ The video of this and the extruding ectoplasm will be unavailable for public viewing until the release of Robert's documentary, *Finding PK*. However, frames from the video may eventually be viewed on the SSE website, <http://scientificexploration.org>, in my 2013 SSE conference presentation.
- ⁸ Michael also installed the temperature gauge in the vicinity of Kai during two of the table sittings. There, too, no temperature shift was recorded.
- ⁹ The outward flapping of the cabinet curtain has been a frequently reported feature of carefully investigated spiritist séances—for example, in the Palladino case. See, e.g., Alvarado 2012, Bottazzi 1907, 2011, Giuditta 2010, and Feilding 1963. But in the Palladino case, the medium sat outside the curtain when this occurred.
- ¹⁰ I'm grateful to Jeff McBride for pointing this out to me. But I should note that dhauti practitioners are warned against using synthetic material for this procedure, and arguably anything that looks like the material Kai displays as ectoplasm. A quick web search on dhauti will show clear im-

ages of the kind of material recommended for the cleansing. Practitioners are also warned against swallowing large quantities of liquid during this procedure, which of course Kai did when he polished off his bottle of ice tea before the séance. Moreover, dhauti practitioners are instructed to leave the material in their stomach for from five to no more than twenty minutes, a much smaller interval than the time that elapsed between my strip search of Kai and the actual production of ectoplasm.

¹¹ For more on Kluski, see Barrington 1994a, 1994b, Coleman 1994, Richet 1923/1975, Varvoglis 2002, Weaver 1992.

¹² At the risk of becoming obnoxiously graphic, I should also add that even if Kai had placed the material in a condom or plastic bag which he hid in his rectum, he would still have had to remove it and its contents without transferring some odor to his hands, clothes, or a paper towel. But neither Jochen nor I detected an odor when the medium's hands were brought within an inch or two of our faces, and I detected no odor from anything in the cabinet immediately after the séance ended.

¹³ The resolute skeptic can always claim that shining the flashlight into Kai's mouth was simply misdirection.

¹⁴ Cleverly and ironically, Jeff produced an apport of fool's gold.

¹⁵ I should note that this paper "ectoplasm" looked nothing like what emerges from Kai's mouth. The paper emerged from Jeff as a bunch of thin streamers, all of which had many small accordion-like folds, indicating that they had previously been tightly compressed into those folds.

¹⁶ In a subsequent email exchange with me, Kai defended this falsehood on the grounds that it would only have further fueled Nahm's suspicion to have admitted to purchasing the cobweb. However, it seems to me that the best—and obvious—way to have countered Michael's suspicion would have been to speak openly and honestly when the opportunity arose.

¹⁷ Kai has recently told me that he does in fact have uneventful séances, witnessed by many people. Lucius Werthmüller, President of the Basel Psi Association, confirms this to some extent. Werthmüller has attended more than 50 FEG séances and reports that, although he never experienced a completely blank sitting, he has seen a great difference in the strength of séances from one occasion to another—greater, in fact, than he has experienced with other mediums. Of course, that doesn't exactly neutralize the skeptical concern about Kai's mediumistic consistency. It could be explained not only in terms of variations in Kai's mediumistic powers, but also variations in opportunities for successfully executing a trick.

¹⁸ Besides, as common sense (or at least a course in elementary logic) dictates, the inference "Some of Kai's phenomena are fraudulent → all of

Kai's phenomena are fraudulent" is invalid, just like the analogous inference "Some money is counterfeit → all money is counterfeit."

- ¹⁹ However, one intriguing incident deserves mention. The first time Kai and Jochen met Lucius Werthmüller, during dinner Lucius mentioned his close relationship to the discoverer of LSD, Albert Hofmann. Two hours later, in a séance, a wax ball appeared containing inside a message on a piece of paper, ostensibly from Hofmann, and apparently in Hofmann's handwriting. That indeed seems impressive, except for the fact that Werthmüller's association with Hofmann is very well known (in fact Werthmüller has written an award-winning book about Hofmann). So although Kai considers this incident one of the major successes of the FEG, some might suggest that Kai didn't first learn about the Werthmüller/Hofmann connection only two hours before the séance and that he had both time and information to prepare an astonishing apport. On the other hand, Werthmüller reports:

Before his death Albert Hofmann promised me to give me a message from the other side. I know for sure that I had not told that to Kai before. Regarding the handwriting his two living children (in their seventies now) spontaneously said "this is the handwriting of our daddy." Also regarding the wording of the apport I can assure you that every word has a meaning for me of which Kai could not know." (Personal communication 4/30/14)

One particularly puzzling feature of this incident is how the apport got into Werthmüller's hand. Kai claims that the apported wax ball appeared inside his closed hand. Perhaps it did. But Werthmüller's account is unclear on the matter. On his website in 2009 he wrote,

We all had put our hands again on the table when we heard a noise and I felt an object that touched my hand and then fell on the floor. We turned on the lights and Ines, my young neighbor-sitter said that she had felt the object on her thigh. She was convinced that it had fallen on the floor and began to search for it. It took a few long seconds until I realized that it was in my hand, I then remembered a touch at the side of my hand and that I had just closed it around the object. (Translated by Lucius Werthmüller, personal communication 4/30/14)

Moreover, Jochen, who attended that séance, confirms that all present heard the dropping of the apport, and that it landed on the leg of Lucius's neighbor at the table before falling to the floor. He then writes, "While Lucius also started immediately to search for it, he noticed it in his hand, though he wasn't aware how it came into it" (personal communication 4/29/14).

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References

- Alvarado, C. S. (2012). Bottazzi and Palladino: The 1907 seances. *Journal of Scientific Exploration*, 26(1), 159–167.
- Barham, A. (1988). The Crawford Legacy Part II: Recent research in macro-PK with special reference to the work of Batcheldor and Brookes-Smith. *Journal of the Society for Psychical Research*, 55(813), 196–207.
- Barrett, W. F. (1919). Concerning the possibility of deception in sittings with Eva C. *Proceedings of the Society for Psychical Research*, 30, 334–337.
- Barrington, M. R. (1994a). Kluski and Geley: Further case for the defence. *Journal of the Society for Psychical Research*, 60, 104–106.
- Barrington, M. R. (1994b). The Kluski hands. *Journal of the Society for Psychical Research*, 59, 347–351.
- Batcheldor, K. J. (1966). Report on a case of table levitation and associated phenomena. *Journal of the Society for Psychical Research*, 43, 339–356.
- Batcheldor, K. J. (1984). Contributions to the theory of PK induction from sitter-group work. *Journal of the American Society for Psychical Research*, 78, 105–122.
- Bottazzi, F. (1907). The unexplored regions of human biology: Observations and experiments with Eusapia Paladino. *Annals of Psychic Science*, 6, 149–156, 260–290, 377–422.
- Bottazzi, F. (2011). *Mediumistic phenomena observed in a series of sessions with Eusapia Palladino* (I. Routti & A. Giuditta, translators). Princeton, NJ: ICRL Press.
- Braude, S. E. (1997). *The Limits of Influence: Psychokinesis and the Philosophy of Science, Revised Edition*. Lanham, MD: University Press of America.
- Braude, S. E. (2003). *Immortal Remains: The Evidence for Life after Death*. Lanham, MD: Rowman & Littlefield.
- Braude, S. E. (2007). *The Gold Leaf Lady and Other Parapsychological Investigations*. Chicago: University of Chicago Press.
- Braude, S. E. (2014). *Crimes of Reason: On Mind, Nature & the Paranormal*. Lanham, MD: Rowman & Littlefield.
- Brookes-Smith, C. (1973). Data tape recorded experimental PK phenomena. *Journal of the Society for Psychical Research*, 47, 69–89.
- Brookes-Smith, C., & Hunt, D. W. (1970). Some experiments in psychokinesis. *Journal of the Society for Psychical Research*, 45, 265–281.
- Coleman, M. H. (1994). The Kluski Moulds: A Reply. *Journal of the Society for Psychical Research*, 60, 98–104.
- Eisenbud, J. (1967). *The World of Ted Serios*. New York: William Morrow & Co.
- Eisenbud, J. (1989). *The World of Ted Serios (2nd edition)*. Jefferson, NC: McFarland & Co.

- Feilding, E. (1963). *Sittings with Eusapia Palladino and Other Studies*. New Hyde Park, NY: University Books.
- Feilding, E., Baggally, W. W., & Carrington, H. (1909). Report on a series of sittings with Eusapia Palladino. *Proceedings of the Society for Psychical Research*, 23, 309–569. [Reprinted in Feilding 1963]
- Geley, G. (1922). Les expériences d'ectoplasmie de la "Society for Psychical Research" de Londres avec Mlle Eva C. *Revue Métapsychique*, 2, 103–131.
- Geley, G. (1927/1975). *Clairvoyance and Materialization: A Record of Experiments* (S. De Brath, Translator). London: T. Fisher Unwin. [Reprinted New York: Arno Press]
- Giuditta, A. (2010). The 1907 psychokinetic experiments of Professor Filippo Bottazzi. *Journal of Scientific Exploration*, 24(3), 495–507.
- Inglis, B. (1977). *Natural and Supernatural*. London: Hodder & Stoughton.
- Irwin, H. J. (1987). Charles Bailey: A Biographical Study of the Australian Apport Medium. *Journal of the Society for Psychical Research*, 54(807), 97–118.
- Isaacs, J. (1984). The Batcheldor approach: Some strengths and weaknesses. *Journal of the American Society for Psychical Research*, 78, 123–132.
- Lodge, O. (1894). Experience of unusual physical phenomena occurring in the presence of an entranced person (Eusapia Paladino), with discussion. *Journal of the Society for Psychical Research*, 6, 306–360.
- Podmore, F. (1902). *Mediums of the Nineteenth Century*, 2 vols. New Hyde Park, NY: University Books. [Reprint of *Modern Spiritualism*, 1902]
- Podmore, F. (1910). *The Newer Spiritualism*. New York: Arno Press.
- Richet, C. (1899). On the conditions of certainty. *Proceedings of the Society for Psychical Research*, 6, 66–83.
- Richet, C. (1923/1975). *Thirty Years of Psychical Research*. New York: Macmillan/Arno Press.
- Schrenck Notzing, Baron von (1923a). Concerning the possibility of deception in sittings with Eva C. *Proceedings of the Society for Psychical Research*, 33, 665–672.
- Schrenck Notzing, Baron von (1923b). *Phenomena of Materialisation* (translated by E. E. Fournier d'Albe). New York: Dutton. [Reprinted: New York: Arno Press, 1975; Mokelumne Hill, CA: Health Research, 1970]
- Varvoglis, M. P. (2002). The Kluski Hands Moulds. In *Proceedings of the 45th Annual Convention of the Parapsychological Association* (pp. 370–380). Paris. <http://www.metapsychique.org/The-Kluski-Hands-Moulds.html>
- Weaver, Z. (1992). The enigma of Franek Kluski. *Journal of the Society for Psychical Research*, 58(828), 289–301.

COMMENTARY

On the Essay Review “William Jackson Crawford on the Goligher Circle” by Michael Tymn

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Abstract—A circle for physical mediumship, the Goligher circle, was recently described in an Essay Review by Michael Tymn in this Journal. This Commentary rectifies several errors contained in that Essay Review, and presents supplementary information about selected aspects of the circle as discussed by Tymn.

In a recent issue of this Journal, Michael Tymn (2013) presented an overview on the work of William Jackson Crawford with the Goligher Circle, drawing on four books Crawford wrote. It is commendable that Tymn drew the attention of readers to these studies, famous in days of yore, which stirred fierce and hostile debates within the community of psychical researchers, especially in Germany (e.g., Oesterreich 1926, Rosenbusch 1927). The case of the Goligher Circle is a good example illustrating the difficulties in judging reported phenomena of physical mediumship. Even when visual documentation devices such as cameras are used, sitters observing the same phenomena can be led to contrasting opinions in their interpretation. While it remains difficult to come to a firm conclusion about Crawford’s investigations, it seems appropriate to add a few comments about Tymn’s Essay Review and the Goligher Circle.

Basics about the Goligher Circle

First, Crawford experimented with the Circle for six years, from 1914 to 1920, not only for two-and-a-half years as Tymn alleges (p. 529). Moreover, Crawford has not explained how many sittings he held with the circle in his books. Hence, it remains unclear why Tymn stated that Crawford held 87 sittings in all (p. 529). Perhaps Tymn has misinterpreted this number, which represents the number of *experiments* that Crawford described in his first book (Crawford 1919a). However, the number of experiments does not

equal the number of sittings needed to perform them, because some were performed within a single sitting, and it took several sittings to accomplish others. In addition, there are many other experiments described in two later books (Crawford 1919b, 1921) and in Fournier d'Albe (1922). During the time Crawford worked with the Goligher Circle, it consisted of seven persons including Kathleen Goligher as the main medium and her three sisters and one brother (not "four sisters;" Tymn 2013:530). Tymn maintains that the three books by Crawford cited above "deal solely with the Goligher phenomena" (p. 529). Yet, Crawford (1919b:160–201) wrote two chapters that explicitly and exclusively deal with experiments performed with two other mediums. One chapter is concerned with the table phenomena of another medium, the other chapter chiefly concerns direct voice phenomena.

During the experiments conducted in the Goligher Circle, all activity was usually coordinated with the unseen operators behind the scenes. Tymn rightly complains that Crawford often didn't specify by which means the communication with them was accomplished, and Tymn lists raps, table tilting, automatic writing, trance voice, and direct voice as possibilities. He suggests that the latter might play a role in this communication (p. 535). However, Crawford stated that direct voice didn't work with Kathleen Goligher (Crawford 1919b:159). Rather, the communications at the sittings for physical phenomena were mediated by a code consisting of raps on the floor that were given in reply to spoken questions, or that indicated the correct letter when a Circle member spelled out the alphabet to form words or sentences (Crawford 1919b:12f, Fournier d'Albe 1922).

Tymn also wonders why "trance voice" would be listed among Kathleen Goligher's phenomena by Crawford when she was not in trance during sittings (p. 535). Crawford mentioned "trance speaking" in general as one phenomenon occurring in the Circle, whose other members were also said to possess limited mediumistic abilities (Crawford 1919a:1). Indeed, some of them would occasionally fall into trance (Crawford 1919a:217, 1921:13). Still, Kathleen also entered apparent trance states in sittings *not* concerned with physical phenomena, namely, when Crawford questioned her (or rather, the supposed "operators") about the whereabouts of the ostensible beyond (Crawford 1919a:238). On such occasions, she would speak with her (trance) voice.

Comments about Guest Sitters and the Question of Fraud

Tymn mentions that Crawford resisted efforts by other members of the Society for Psychical Research (SPR) in addition to William Barrett to sit with the group (p. 538). Barrett's account was not only published in the book mentioned by Tymn, but also in the *Proceedings of the SPR* (Barrett

1919). Charles Drayton Thomas relates that Lady Barrett had likewise been present at the sitting, and she told him “that while Sir William was levitated with the table she was feeling with her umbrella underneath the table legs and satisfied herself that no cords or implements of any kind were being used. All was clear; the umbrella met with no obstructions” (Thomas 1946–1949:126). Nevertheless, one other respected member of the SPR sat with the Circle in 1916: Whately Smith (Carington). He wrote a favorable account of his experiences (Smith 1919). However, when he visited the Circle a second time in 1920, he found a “conspicuous and startling deterioration” of the phenomena and he concluded that the mediumship had become fraudulent (Salter 1946–1949:202). Still, he remained convinced that the phenomena at the first sitting had been genuine. It seems that no details are known about Smith’s second visit—not even if Crawford was still alive then. That the Circle sat with guests shortly after Crawford’s death is confirmed by a positive report by psychical researcher F. McCarthy Stephenson (1920) about a sitting held in September 1920.

Toward the end of his Essay Review, Tymn maintains that Crawford’s photographs “speak for themselves, unless, as a last resort, one is to assume that he faked them” (p. 538). However, not even the harshest of Crawford’s critics have accused him of fraud. Usually, they followed Fournier d’Albe (1922) and depicted Crawford as an ingenuous and credulous enthusiast who was deceived by the Goligher family. Fournier d’Albe held 20 sittings with the Goligher Circle in 1921 (not in 1922, as related by Tymn, p. 537), and concluded that they moved the tables with their feet and introduced chiffon to simulate emanations of ectoplasm. Yet, like Crawford, Fournier d’Albe was disappointingly closefisted with regard to describing crucial details of the sittings. In fact, he experienced several phenomena that might well have been genuine. For example, he experienced the often-reported Goligher phenomenon of the table being “glued” to the floor in the center of the Circle: He tried to push and to pull it, but it resisted “as if held by a couple of strong men” (Fournier d’Albe 1922:9). This happened under conditions of red light that permitted seeing “most of the hands of the sitters but none of their legs” (p. 10). Yet, the author doesn’t provide more information about this incident, nor on several other interesting occurrences. Much remains unclear. Fournier d’Albe didn’t even try to trace the origins of the frequent raps, which might have constituted an appropriate start for his investigations. The book contains so many omissions that Dingwall (1923–1924) considered a critical and detailed examination of Fournier d’Albe’s book valueless. Indeed, the eyewitness accounts of several guest visitors of the Circle presented in the Appendix, among them the then-president of the Glasgow Society for Conjurers, rank among the more intriguing contents

of the book. Similarly, Stephenson, who had visited the Circle a few times before Crawford's death and one time shortly thereafter, and who was again present at seven sittings held with Fournier d'Albe, opposed the latter's conclusions (Anonymous 1936). Fournier d'Albe remained convinced of fraud, and reaffirmed his accusation in 1927. He stated that the Circle had broken up since his exposure, that Kathleen Goligher was happily married, and that she didn't seem to like being reminded of her former girlish pranks (Fournier d'Albe 1927). Indeed, she wasn't keen on continuing experimental sittings after the disaster with Fournier d'Albe. She became Mrs. Donaldson, and a mother of two girls. Still, her husband persuaded her to sit again for photographic documentation of the phenomena with Stephenson (Donaldson 1933). She continued to meet for private sittings that included her husband until at least October 1936, and allowed Stephenson to perform further controlled experiments (Anonymous 1936, Stephenson 1936a, 1936b, 1937; see also Barham 1988).

Finally, it might be noted that weighing experiments almost identical to Crawford's approach had been performed earlier with Eusapia Palladino by a French committee of researchers. They provided the same result: The medium's body weight increased by approximately the weight of the table when it levitated (Courtier 1908).

References

- Anonymous (1936). Mr. McCarthy Stephenson on Goligher and Hope phenomena. *Light*, 56, 234–235.
- Barham, A. (1988). Dr. W. C. Crawford, his work and his legacy in psychokinesis. *Journal of the Society for Psychical Research*, 55, 113–138.
- Barrett, W. (1919). Report of Physical Phenomena Taking Place at Belfast with Dr. Crawford's Medium. *Proceedings of the Society for Psychical Research*, 30, 334–337.
- Courtier, J. (1908). *Documents sur Eusapia Palladino*. Paris: Institut Général Psychologique.
- Crawford, W. C. (1919a). *The Reality of Psychic Phenomena* (second edition). London: Watkins. [First published in 1916]
- Crawford, W. C. (1919b). *Experiments in Psychical Science*. New York: Dutton.
- Crawford, W. C. (1921). *The Psychic Structures at the Goligher Circle*. New York: Dutton.
- Dingwall, E. J. (1923–1924). Book review: The Goligher Circle. Experiences of E. E. Fournier d'Albe. *Journal of the Society for Psychical Research*, 21, 19–24.
- Donaldson, S. G. (1933). Five experiments with Miss Kate Goligher. *Psychic Science*, 12, 89–94.
- Fournier d'Albe, E. E. (1922). *The Goligher Circle*. London: Watkins.
- Fournier d'Albe, E. E. (1927). Noch einiges zum Goligher-Zirkel. *Zeitschrift für kritischen Okkultismus*, 2, 288–290.
- Oesterreich, T.K. (1926). Kathleen Goligher. In A. von Schrenck-Notzing (Editor), *Die physikalischen Phänomene der grossen Medien*, Stuttgart: Union Deutsche Verlagsgesellschaft, pp. 105–170.
- Rosenbusch, H. (1927). Oesterreich, Crawford, Ochorowicz. *Zeitschrift für kritischen Okkultismus*, 2, 52–72.
- Salter, W. H. (1946–1949). Obituary: Mr. W. Whately Carington. *Proceedings of the Society for Psychical Research*, 48, 197–212.

- Smith, W. (1919). The Reality of Psychic Phenomena. *Proceedings of the Society for Psychical Research*, 30, 306–333.
- Stephenson, F. M. (1920). An account of a test séance with the Goligher Circle. *Psychical Research Quarterly*, 1, 13–17.
- Stephenson, F. M. (1936a). The Goligher circle. A report of a recent sitting. *Psychic Science*, 15, 153–154.
- Stephenson, F. M. (1936b). Metaplasma im Kate "Goligher-Zirkel." *Zeitschrift für metapsychische Forschung*, 7, 169–171.
- Stephenson, F. M. (1937). Der Goligher Zirkel. Bericht einer Sitzung vom 13. Oktober 1936. *Zeitschrift für metapsychische Forschung*, 8, 1–3.
- Thomas, C. D. (1946–1949). A New Hypothesis Concerning Trance Communications. *Proceedings of the Society for Psychical Research*, 48, 121–163.
- Tymn, M. (2013). Essay Review: William Jackson Crawford on the Goligher Circle. *Journal of Scientific Exploration*, 27(3), 529–539.

COMMENTARY

On W. J. Crawford's Studies of Physical Mediumship

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Abstract—These comments are about the context and reception of W. J. Crawford's physical mediumship work. Interestingly, Crawford did not discuss previously relevant work on the subject, nor the conceptual tradition about mediumistic forces discussed by many authors before he published his studies. The latter included ideas to explain phenomena such as telekinesis and materialization. Many writers were skeptical of Crawford's results, while others argued that some of his findings may have been due to what we now call experimenter effects.

Writing about psychical research in the 12th edition of the *Encyclopaedia Britannica*, philosopher Ferdinand C. S. Schiller (1922:202) wrote that medium

Kathleen Goligher of Belfast . . . and the family circle in which she sat, were exhaustively studied by Dr. W. J. Crawford, a lecturer in mechanical engineering in the local university, who described his conclusions in a series of books: *The Reality of Psychic Phenomena* appeared in 1916, *Experiments in Psychical Science* in 1919, while the third, *The Psychic Structures at the Goligher Circle*, delayed by the author's sudden death, appeared in Feb. 1921. They formed a graduated series, growing more and more sensational in their results, and in the end actually represented as visible facts what had originally been suggested as hypothetical inferences.

While such psychical research work has been mentioned frequently in recent times, including in popular books (e.g., Roach 2005:127–133), I doubt Crawford's books are read by many today. For this reason I welcomed Michael E. Tynn's (2013) recent Essay Review in the *JSE* providing us with a summary of the above-mentioned three books (Crawford 1916, 1919, 1921), and of a fourth one not cited by Schiller (Crawford 1918). Because most modern comments about Crawford's work are centered on the issue of

the reality of the phenomena, I would like to offer some comments about the context of his research and its reception.

Tymn (2013:530) rightly points out that Crawford's books "are lacking in . . . historical detail relative to the Goligher family." I would like to add that Crawford's writings also present another problem for modern readers. That is, he did not place his work in the context of previous work, among it observations of the phenomena of mediums such as D. D. Home (Crookes 1874) and Eusapia Palladino (Morselli 1908), among many others. Crawford's books are limited to his observations and to the results of his tests, and no systematic comparisons were offered in terms of previous findings on the topic.

Crawford also did not connect his work to previous existing theory. He believed that "actual matter [was] temporarily taken from the medium's body and put back at the end of the séance" (Crawford 1916:146). Based on weighing tests of members of the mediumistic circle, including himself, Crawford believed that the loss of ounces of weight in several sitters meant that "*something is being loosened* from the bodies of the members of the circle" (Crawford 1916:150). He also supported the belief in a connection between the medium and the table in some tests in which the weight of the table was added to that of the medium, something described by a writer as "the first quantitative determination in telekinetic science" (Holt 1919:185). While contemporary readers may get the impression from Crawford's writings that such ideas originated with him (something he did not claim), in actuality there was a tradition of concepts of forces and radiations coming out of the medium's bodies (and the sitters') to explain telekinesis and materializations preceding Crawford.

Such ideas of forces related to the body of mediums as agents of physical phenomena were present since the early days of American spiritualism, as seen in books such as *Philosophy of Mysterious Agents* (Rogers 1853) and *Modern Mysteries Explained and Exposed in Four Parts* (Mahan 1855). Similar ideas came from other countries. Russian chemist Aleksandr M. Butlerov stated: "The source of this force . . . proceeds from the ponderable material of the medium. . . . The creation of a force need not be postulated without a corresponding consumption of energy. . . . What happens is but the transference of some living energy emanating from a material body to another body" (Butlerov 1874:281). Later twentieth-century writers, among them Italian psychiatrist Enrico Morselli (1908) and Polish philosopher and psychologist Julian Ochorowicz (1910), continued developing similar ideas (for many other examples see Alvarado 2006 and Alvarado & Nahm 2011).

While Crawford was a relative latecomer to such theoretical concerns, his contributions were important. His case represents an interesting historical

example of process research with physical phenomena. As such, Crawford's work deserves a prominent place in the history of efforts to understand the physical aspects behind telekinesis and materializations.

This was the case with the study of forces involved in table levitation (Crawford 1916, 1919) and with the "flow" of what he called plasma (Crawford 1921). Regarding the latter, Arthur Conan Doyle (1921:292) wrote:

We sometimes call it Psychoplasm in England, Richet named it Ectoplasm, Geley calls it Ideoplasm; but call it what you will, Crawford has shown for all time that it is the substance which is at the base of psychic physical phenomena.

In addition to seeing Crawford's work as an example of the study of mediumistic forces, it is of interest to realize that his results have been discussed in terms of belief in what today we refer to as experimenter effects (Bozzano 1967, Schrenck-Notzing 1921/1972, Sudre 1926). In a 1921 paper about Crawford's work, Albert von Schrenck-Notzing (1921/1972:177) speculated if the materialization process could be the product of the theoretical convictions of the person in charge of the tests, becoming established gradually until it was physically produced through the medium's mind. Ernesto Bozzano speculated that instead of obtaining evidence confirming his ideas about the phenomena, Crawford may have suggested to the medium "to reproduce, with ectoplasmic substance, the tangible example of his own theory" (Bozzano 1967:107; this was an enlarged version of articles first appearing in the late 1920s). Bozzano accepted that the fluidic cantilevers of Crawford were real, but argued that such confirmation of the researcher's ideas did not mean "that the levitation of the table in general took place in such way, but only that the subconscious will of the medium, having received Crawford's verbal suggestion" (Bozzano 1967:107), yielded to the idea. In truth, this was basically a speculation with no evidence in its support. But it provides a fascinating connection with similar ideas from the previous literature about hysteria and hypnosis, not to mention some studies of mental mediums (Alvarado 1991). Ideas such as these show that research programs such as Crawford's fulfilled many functions in the past discourse on psychical research.

Much can also be said about the reception of Crawford's work, a topic I cannot do justice to here but that is important to understand the impact of his work and the development of psychical research. There were many writings about Crawford's work in scholarly publications such as the *Proceedings of the Society for Psychical Research* (Dingwall 1922) and the *Journal of Abnormal Psychology* (Prince 1919), not to mention many

general reviews in *Popular Science Monthly* (Anonymous 1921), *Current Opinion* (Anonymous 1922), *Unpartizan Review* (Holt 1919), and *The Weekly Review* (Jastrow 1920a).

Crawford had his supporters. One commentator stated:

It appears to be scientifically as well as morally impossible that Miss Kathleen Goligher, the young medium through whom various interesting physical phenomena are obtained, tricks or cheats in any way. (Kingsford 1920:260)

Charles Richet (1922:522) wrote about the “admirable tests of Crawford, which singularly illuminate the causes and the mechanism of telekinesis.” Parts of Crawford’s (1916, 1919, 1921) main books were translated into French by René Sudre (Crawford 1923), showing the high esteem Sudre had for the works. Particularly interesting was the previously mentioned essay by Schrenck-Notzing (1921/1972) in which he mentioned several methodological innovations introduced by Crawford and in which he noticed similarities between the materialization phenomena and physiological reactions of Goligher and the medium Eva C.

But there were also many critiques based on the possibility of fraud and on faulty methodology or conditions of observation (e.g., Beadnell 1920). Morton Prince (1919:360) stated:

Crawford assumes the veridity of the phenomena and therefore the lack of need of precaution against unconscious fraud. From his point of view he is probably justified in his method of experimenting. But it cannot be expected that this assumption will be accepted by an outsider as valid.

Eric J. Dingwall (1922) considered that Crawford’s reports lacked important information and presented various problems, but nonetheless he affirmed that they were “the most important contributions towards the study of telekinesis” (p. 150) that had appeared up to the moment of the author’s death. More negative were Joseph Jastrow’s (1920a) comments, who assumed everything was fraudulent. He wrote attempting to ridicule Crawford:

Professor Crawford, the engineer, in the daytime believes in gravity and the parallelogram of forces; but once a week, at evening in the séance-room when Miss Goligher, the medium, joins the society of the balances and cantilevers, gravity yields in deference to a psychic lady, and the parallelogram of forces finds its occupation temporarily gone. The two orders of thinking keep house together in many minds, just because the mental housekeeping is so commonly loose and irregular and impressionistic—and does so

much on the credit basis—that the incongruity escapes notice. There is no monthly censor to give notice that the account is overdrawn; an intellectual clearing-house is not a popular institution. (Jastrow 1920a:42)

There are other factors that contributed to the creation of negative suspicions about Crawford's work. It did not help that Crawford committed suicide in 1920. Regardless of his assurance that his decline was not due to his psychic work (Deland 1920, Gow in Crawford 1921:v), others implied after his death that there was a connection (e.g., Jastrow 1920b).

Another problem was that, in spite of other reports positive toward the phenomena independent of Crawford (e.g., Barrett 1919), some of them published after Crawford's death (e.g., Stephenson 1936), the negative report of physicist Edmund Edward Fournier d'Albe (1922) tarnished the medium's reputation. Fournier d'Albe had séances with the Goligher Circle after Crawford's death and suspected fraud. However, only on one occasion did he report a direct observation of possible fraud. In a séance held in July of 1921 Fournier d'Albe said that a small stool was levitated and

I saw against the dim red background of the wall the stool held by KG's [Kathleen Goligher's] foot and portion of leg . . . The phenomenon was repeated. Again I saw the procedure . . . (Fournier d'Albe 1922:34)

As is usual in psychical research, the report was criticized on several grounds (Dingwall 1923, McKenzie 1923). But no one seems to remember these counter critiques today. Dingwall (1923) was not convinced by the observation of fraud and was disappointed about the lack of details and tests in Fournier d'Albe's report. In his words:

It ought to have been perfectly easy to devise experiments which would have exposed completely the true nature of the phenomena and which could have been put into operation without the circle being in the least aware of what was occurring. Thus ample proof could have been given and the matter placed beyond any doubt. As it is, the gravest doubt exists whether the circle is in reality the gang of frauds that Dr. Fournier would have us believe. A critical and detailed examination of his book is valueless. It is as useless as any critical examination of Dr. Crawford's work in the past. The facts are not given. (Dingwall 1923:23)

To summarize, Tymn's review will help modern readers to become aware of Crawford's fascinating efforts to understand the workings of physical mediumship. Similarly, I hope that my brief comments will assist those readers in seeing these developments in a more general context.

References

- Alvarado, C. S. (1991) Iatrogenesis and dissociation: A historical note. *Dissociation*, 4, 36–38.
- Alvarado, C. S. (2006). Human radiations: Concepts of force in mesmerism, spiritualism and psychical research. *Journal of the Society for Psychical Research*, 70, 138–162.
- Alvarado, C. S., & Nahm, M. (2011). Psychic phenomena and the vital force: Hereward Carrington on "Vital energy and psychical phenomena." *Journal of the Society for Psychical Research*, 75, 91–103.
- Anonymous (1921). Weighing ghosts and photographing phantoms: How three European scientists brought the "spirit world" into the laboratory. *Popular Science Monthly*, 99(3), 15–17.
- Anonymous (1922). Photographing "psychic" structures. *Current Opinion*, 72, 508–510.
- Barrett, W. F. (1919). Report of physical phenomena taking place at Belfast with Dr. Crawford's medium. *Proceedings of the Society for Psychical Research*, 30, 334–337.
- Beadnell, C. M. (1920). *The Reality or Unreality of Spiritualistic Phenomena: Being a Criticism of Dr. W. J. Crawford's Investigations into Levitations and Raps*. London: Watts.
- Bozzano, E. (1967). *Pensiero e Volontè*. Verona: Luce e Ombra.
- Butlerov, A. (1874). Confirmation of the reality of spiritualistic phenomena. *Human Nature*, 8, 277–284.
- Crawford, W. J. (1916). *The Reality of Psychic Phenomena: Raps, Levitations, Etc.* London: John M. Watkins.
- Crawford, W. J. (1918). *Hints and Observations for Those Investigating the Phenomena of Spiritualism*. New York: E. P. Dutton.
- Crawford, W. J. (1919). *Experiments in Psychical Science: Levitation, Contact, and the Direct Voice*. London: John M. Watkins.
- Crawford, W. J. (1921). *The Psychic Structures at the Goligher Circle*. New York: E. P. Dutton.
- Crawford, W. J. (1923). *La Mécanique Psychique*. Paris: Payot.
- Crookes, W. (1874). *Researches in the Phenomena of Spiritualism*. London: J. Burns.
- Deland, M. (1920). The late Dr. Crawford: His own explanation: Overwork. *Weekly Review*, 3, 586.
- Dingwall, E. J. (1922). Review of *The Psychic Structures at the Goligher Circle*, by W. J. Crawford. *Proceedings of the Society for Psychical Research*, 32, 145–150.
- Dingwall, E. J. (1923). Review of (*Psychical Research*) *The Goligher Circle, May to August, 1921*, by E.E. Fournier d'Albe. *Journal of the Society for Psychical Research*, 21, 19–24.
- Doyle, A. C. (1921). *The Wanderings of a Spiritualist*. New York: George H. Doran.
- Fournier d'Albe, E. E. (1922). (*Psychical Research*) *The Goligher Circle, May to August, 1921*. London: John M. Watkins.
- Holt, H. (1919). Some revolutionary physics. *Unpartizan Review*, 12, 182–196.
- Jastrow, J. (1920a). Psychic research: The Bolshevik of science. *The Weekly Review*, 3, 41–43.
- Jastrow, J. (1920b). A psychic tragedy: The case of Professor Crawford. *The Weekly Review*, 3, 412–415.
- Kingsford, S. M. (1920). *Psychical Research for the Plain Man*. London: Kegan Paul, Trench, Trubner.
- Mahan, A. (1855). *Modern Mysteries Explained and Exposed in Four Parts*. Boston: J. P. Jewett.
- McKenzie, J. H. (1923). The Goligher Circle: Experiences of E. E. Fournier d'Albe, D.Sc. (London). *Psychic Science*, 1, 366–377.
- Morselli, E. (1908). *Psicologia e "Spiritismo:" Note e Impressioni Critiche sui Fenomeni Medianici di Eusapia Paladino* (2 vols.). Turin: Fratelli Bocca.
- Ochorowicz, J. (1910). Les rayons rigides elles rayons Xx: Études expérimentales. *Annales des Sciences Psychiques*, 20, 97–105, 129–136, 172–178, 204–209, 225–231, 257–263, 295–302, 336–344, 357–370.
- Prince, M. (1919). Review of *Experiments in Psychical Science*, by W. J. Crawford. *Journal of Abnormal Psychology*, 14, 355–361.

- Richet, C. (1922). *Traité de Métapsychique*. Paris: Félix Alcan.
- Roach, M. (2005). *Spook: Science Tackles the Afterlife*. New York: W. W. Norton.
- Rogers, E. C. (1853). *Philosophy of Mysterious Agents*. Boston: J. P. Jewett.
- Schiller, F. C. S. (1922). Psychical research (or Spiritualism). *Encyclopaedia Britannica* (12th edition, Vol. 32, pp. 198–204). London: Encyclopaedia Britannica Company.
- Schrenck-Notzing, A. von (1972). El problema de materialización según las investigaciones de W. J. Crawford. In G. Walther (Editor), *Problemas Básicos de la Parapsicología* (pp.147–193). Buenos Aires: Troquel. [First published in 1921]
- Stephenson, F. M. (1936). The Goligher Circle: A report of a sitting held on the 13th Oct., 1936. *Psychic Science*, 15, 305–307.
- Sudre, R. (1926). *Introduction à la Métapsychique Humaine*. Paris: Payot.
- Tymn, M. E. (2013). William Jackson Crawford on the Goligher Circle. *Journal of Scientific Exploration*, 27(3), 529–539.

OBITUARY

Halton Christian (Chip) Arp, 1927–2013

Dr. Halton C. Arp (better known as “Chip” Arp), passed away on December 28, 2013, in Munich, Germany. Chip was honored by the Society for Scientific Exploration in 1996 with the award of the Dinsdale Prize. The citation reads:

For his extensive observational research concerning the redshift of quasars and other astronomical objects, and his perception and creativity concerning the role of redshift in cosmology.

As is typical of recipients of this Award, his scientific contributions were significant—and controversial.

Arp received his Bachelors degree from Harvard College in 1949 and his Ph.D. from the California Institute of Technology in 1953, both cum laude. Concerning his time as a student at Cal Tech, Arp recalls: “Professors at Cal Tech were very difficult. There was a tremendous emphasis on being knowledgeable and being right, and so forth.”

After receiving his Ph.D., he took an appointment at the Mt. Wilson and Palomar Observatories (also based in Pasadena, California) for two years, carrying out research on novae. Arp then spent two years in South Africa (supported by a National Science Foundation grant, nominally as a Research Associate at Indiana University) where his principal observations were of the Magellanic Clouds. Arp came to the conclusion that they do not have the same chemical composition as our Galaxy, which is metal-poor compared with both Clouds. He recalls that his conclusion “was immediately challenged by some of [his] colleagues who said it wasn’t so. . . . That was the first controversy I got into.” But it was subsequently accepted that Arp was correct.

In 1957, Arp took an appointment as Carnegie Fellow at the Mt. Wilson and Palomar Observatories. Walter Baade, Ira Bowen, Edwin Hubble, Milt Humason, Rudolph Minkowski, and Fritz Zwicky were some of the distinguished members of that organization. At that time, the Observatories were organizationally separate from Cal Tech, but there was close interaction between the Carnegie staff and the physics staff at Cal Tech. Arp recalls that “Hubble was a very formal person.” Before embarking on a night’s observing, astronomers would gather for dinner. “Hubble would sit down

in a very formal position at the head of the table, and the napkins would be laid out just right.”

Arp’s early astronomical research was mainly in stellar physics, studying Cepheid variables (which play a crucial role in determining the size of the universe), stellar populations, stellar evolution, etc. In recognition of his research, he received the Helen B. Warner Prize of the American Astronomical Society in 1960, and the Newcomb Cleveland Award of the American Association for the Advancement of Science, for his work on “Stellar Content of Galaxies” (Arp 1962), in the same year. He then became interested in interacting galaxies, and produced what is now a



Halton “Chip” Arp

classic atlas (*The Arp Atlas of Peculiar Galaxies*) of those objects (see Arp 1987a, 1987b). Quasars were discovered in 1963, and Arp began to notice an apparent association between peculiar galaxies and nearby quasars. However, this was heresy! The accepted doctrine was (and is) that the redshift of a quasar is a measure of its distance, so that quasars are viewed as probes of the structure of the universe. Arp’s claim of an association between high-redshift quasars and low-redshift galaxies is completely incompatible with the standard interpretation. This purely scientific disagreement developed into a political conflict. Arp found it more and more difficult to get observing time on the telescopes, and eventually he was forbidden to continue on that line of research!

Arp could either acquiesce or resign—and (in 1983) he resigned his position at the Mt. Wilson and Palomar Observatories. Fortunately for him, the Max Planck Institute for Astrophysics in Munich, Germany, offered him a position as a visiting astronomer, and he was able to continue to observe, using European facilities.

Arp’s views concerning the meaning of redshifts remains very much a minority opinion, and remains highly controversial. Most scientists subscribe to the view that redshifts are due to a gravitational effect, a local velocity, or the expansion of the universe (or a combination of these effects). The issue can be settled only by the analysis of observations. At this time, the consensus is that further observations do not support Arp’s claim. If the

analysis has been unbiased, that settles the issue. If the analysis proves to have been biased, the issue remains unresolved.

Whether Arp was right or wrong, there is no doubt that he did not receive the appreciation and support he should have. One would hope that a scientific community would welcome and encourage anyone who questions standard beliefs. Alas, this tends not to happen. If Arp had had a faculty appointment with tenure, he might have received more considerate treatment. But, on the other hand, he might not have.

PETER A. STURROCK

References

- Arp, H. (1962). Stellar content of galaxies. *Problems of Extra-Galactic Research*. Proceedings from International Astronomical Union Symposium No. 15, edited by George Cunliffe McVittie. New York: Macmillan Press, p. 42.
- Arp, H., & Madore, B. F. (1987a). *A Catalogue of Peculiar Southern Galaxies and Associations, Volume I, Positions and Descriptions*. Cambridge University Press.
- Arp, H., Madore, B. F., & Roberton, W. E. (1987b). *A Catalogue of Peculiar Southern Galaxies and Associations, Volume II, Selected Photographs*. Cambridge University Press.

ESSAY REVIEW

Three New England Abduction Stories and One New Reality

The Interrupted Journey: Two Lost Hours Aboard a Flying Saucer by John G. Fuller. New York: Dial Press, 1966 (sixth edition). 301 pp. ISBN 978-0285624504.

Captured! The Betty and Barney Hill UFO Experience: The True Story of the World's First Documented Alien Abduction by Stanton Friedman and Kathleen Marden. Franklin Lakes, NJ: New Page Books, 2007. 319 pp. ISBN 978-1564149718.

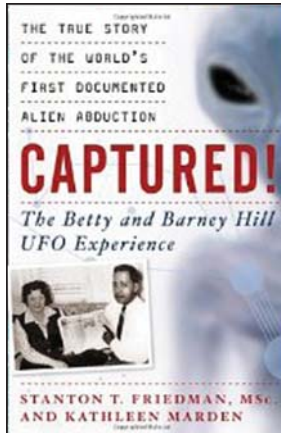
Encounter at Buff Ledge: A UFO Case History by Walter Webb. Chicago: J. Allen Hynek Center for UFO Studies, 1994. 306 pp. ISBN 978-0929343600.

The Allagash Abductions: Undeniable Evidence of Alien Intervention by Raymond E. Fowler. Columbus, NC: Wild Flower Press, 1993. 347 pp. ISBN 978-0926524231.

Three stories that change what we know about the universe begin with the 1961 New Hampshire experiences of Barney and Betty Hill, first told in *The Interrupted Journey* by John G. Fuller in 1966. In 2007 that story was retold with new information and insights in *Captured!* by Stanton Friedman and Kathleen Marden.¹ A second story about a 1968 Lake Champlain experience was described in *Encounter at Buff Ledge*, written by Walter Webb in 1994. A third story, from Maine in 1976, was told in *The Allagash Abductions* by Raymond E. Fowler and published in 1993. The three stories span an interval of fifteen years.

I have not read all of the many books about alien abductions, so I cannot comment on the accuracy of the ones I have not read. But these four, among several others not reviewed here, report *facts*. The *Pocket Oxford Dictionary* defines *fact* as *thing that is known to be true or to exist; truth, reality, thing assumed as basis for argument*. These four books report *narratives* that were spoken or written by the people who experienced the events. The reported *narratives* are what I call facts. They are the “thing assumed as basis for argument.”

There is a difference between calling a *narrative* a *fact* and *explaining*



that narrative. The science of psychology recognizes that not all personal narratives respect external reality. A *narrative as fact* can be generated by a psychological reality, by an external reality, or by both. Do eight witness narratives—two from New Hampshire in 1961 (Barney and Betty Hill), two from Lake Champlain in 1968 (Michael Lapp and Janet Cornell), and four from Eagle Lake, Maine, in 1976 (Jim Weiner, Jack Weiner, Charlie Foltz, and Chuck Rak)—represent psychological reality, external reality, or a mix of both? If they represent only psychological reality, then they might be interesting to the narrator, to clinicians, and perhaps to novelists. If they even partly represent external reality, then they should be interesting to all of us, because they suggest that *our* external reality includes extraterrestrial vehicles with ET crews who catch and release humans to study them. How well do the eight narratives represent external reality? First consider the Barney and Betty Hill story.

Barney and Betty Hill

Barney and Betty Hill lived in Portsmouth, New Hampshire. They had married about a year before they took a delayed honeymoon vacation trip in September 1961. They drove from New Hampshire through New York State to Niagara Falls, across the Niagara River to Canada and along the northern shore of Lake Ontario and the St. Lawrence River to Montreal. Barney took a wrong turn in Montreal, couldn't understand the directions he was offered in French, and so instead of staying in Montreal for another night as planned, they drove back to the United States and started home along US Route 3 through the White Mountains of New Hampshire.

A UFO played tag with them as they drove south along US 3. It hovered over the road ahead of them, close enough so that they could see humanoid figures through windows on the front of the craft. The UFO moved off to the left of the road. They accelerated down the road. They heard beeping sounds apparently coming from the roof of the car; the next thing they consciously remembered was that they were still driving along US 3, but much farther south. They arrived home, exhausted, as the sun rose; about two hours later than the trip should have taken them.

Barney and Betty recounted what they remembered of their experience to family, friends, and a church group. Word got out, and their story was written up in a Boston newspaper and they received more attention than they

had wanted or expected. Betty had disturbing dreams, Barney had various physical ailments; and they eventually ended up being treated by Dr. Benjamin Simon, a Boston psychiatrist, whose professional goal was to relieve them of the psychological and psychosomatic distress that they associated with fleeting memories of what might have happened during their period of “missing time” following the close encounter along US 3 in northern New Hampshire.

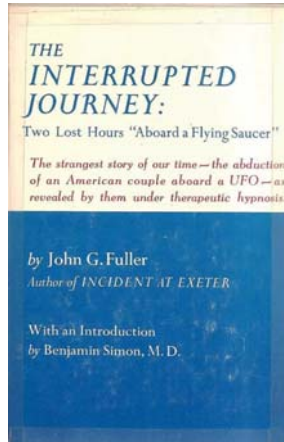
John G. Fuller and Benjamin Simon

John G. Fuller, a writer and columnist for the *Saturday Review* magazine, had been investigating UFO sightings reported near Exeter, New Hampshire, not far from Portsmouth. He was told about the Hills by a local journalist, so he followed up his UFO investigations by contacting the Hills and writing about what happened to them. He wrote *Incident at Exeter* (Fuller 1966) about the UFO sightings. He wrote *The Interrupted Journey* about the Hills and their experience. He had the support and cooperation of the Hills as well as of their psychiatrist, Dr. Simon.

Dr. Simon hypnotized Barney and Betty separately in order to elicit memories about what happened to them after the close encounter. All of the hypnosis sessions were taperecorded. Dr. Simon used posthypnotic suggestion to prevent Barney and Betty from recalling the memories elicited under hypnosis until after all of the therapy sessions had been completed. Only then did he let them listen to the tapes.

The hypnosis transcripts, which correspond to Betty’s earlier and consciously recalled dreams, show that their car was guided off US 3 onto a dirt road and into a hidden clearing; that they were escorted into a landed UFO and examined, the examination including in Betty’s case an ovarian probe and in Barney’s case a sperm sample;¹ and that Betty exchanged telepathic messages with one of their captors. They were escorted back to the car, Barney drove their car back to the road, and they regained full consciousness only when they were back on US 3 and travelling south again.

Hypnosis is controversial: It can be used to plant “false memories” as well as to retrieve repressed memories (Erickson & Rossi 1979). Much depends on the motivation and professional ethics of the hypnotist. No one has ever questioned either Dr. Simon’s professional competence or his ethics. In fact, Dr. Simon never accepted the external reality of the memories that he elicited under hypnosis from Barney and Betty Hill.



R. V. Jones and Scientific Intelligence

It is nearly half a century since *The Interrupted Journey* was published. Why should we now accept that Barney and Betty Hill's hypnotically reported memories were externally real when their own psychiatrist, Dr. Simon, didn't? Many accounts—including the two other New England stories to be reviewed here—provide corroborating details that match the Barney and Betty Hill experience. In making sense of narrative accounts, we should use an approach that belongs, not to science as such, but to the art of scientific intelligence. The intelligence approach to the UFO and abduction evidence is based on the insight of an eminent scientist (and, incidentally, a UFO skeptic), Dr. Reginald V. Jones, who was the head of British Scientific Intelligence (a branch of MI6) during World War II (Jones 1978). Jones used what he called "touchstones" (Jones 1978:447) to decide whether an intelligence report should be taken seriously. A touchstone, in Jones' vocabulary, meant that the report contained some information that he could rely on. This gave him confidence that the other information in the report was likely to be true. In the case of the German V-2 rocket, Jones had reliable information that one component of the rocket fuel was either liquid oxygen or liquid air. When that information was included in intelligence reports with new information, he had reason to credit the new information—particularly if that new information was consistent across reports.

Barney and Betty Hill *consciously recalled* seeing a UFO and humanoid occupants at close range. Their UFO close encounter report was reliable; they told their friends and family about it soon after they returned home. They also knew that they could not remember driving over a long stretch of US 3 and that they had returned home two hours later than they should have. Their *missing time* report was also reliable: It was consciously recalled. There were marks on their car that had not been there before the close encounter; there were scuffs on Barney's shoes that had not been there before the close encounter; Barney developed a unexplained case of groin warts shortly after the encounter and Betty had clothing damaged in a way that was consistent with her dream (and hypnotically recalled memory) of a medical examination.

Conscious recall, while demonstrably imperfect, can be a foundation on which we can begin to build an understanding of reality—if that recall is elicited by straightforward questioning, if it is consistent across independent witnesses, and if it is sustained as a consistent narrative about a phenomenon over an extended period of time (in the narratives reviewed here, over a span of fifteen years) (Poole & White 1991, Erdelyi & Kleinbard 1978). The *consciously recalled close encounter*, the *supplementary witnesses*, the *missing time*, and the various *physical phenomena* are touchstones:

consistent and reliable narratives relating to external reality that give us reason to think that other elements of narratives that include some or all of these touchstones also relate to external reality.

Walter Webb and Raymond Fowler

Walter Webb, who wrote *Encounter at Buff Ledge* about Michael Lapp and Janet Cornell, and Raymond Fowler, who wrote *The Allagash Abductions* about Jim Weiner, Jack Weiner, Charlie Foltz, and Chuck Rak, both made a career (if not a living) investigating and documenting UFO and close encounter reports. Walter Webb is a professional astronomer who was a senior lecturer, assistant director, and operations manager at the Charles Hayden Planetarium of the Boston Museum of Science. He wrote the first report on the Barney and Betty Hill case for the National Investigations Committee on Aerial Phenomena (NICAP). Raymond Fowler graduated magna cum laude from college, joined the Air Force, became an electronic espionage specialist, and after leaving the Air Force worked in private industry on defense projects. He is an amateur astronomer and has written several books on the UFO and abduction experience. Webb and Fowler, like John G. Fuller, are credible reporters. While the narratives they report must be evaluated on their own merits, the reporters are people whose professional careers and scholarly credentials inspire confidence that they have reported *narratives as fact*.

Put yourself in the shoes of a scientific intelligence chief like R. V. Jones. From that perspective, the Barney and Betty Hill story, as told in *The Interrupted Journey* and then later in *Captured!*, is your first report about a new and potentially upsetting development. It is the modern equivalent of the first intelligence report suggesting that Jones' World War II adversary, Nazi Germany, had developed a new weapon like the V-1 "buzz bomb" or the V-2 ballistic missile. Your first intelligence report was delivered by a trusted source, John G. Fuller. A second report about your adversary's development has been produced by another trusted source, Walter Webb, in *Encounter at Buff Ledge*. What happened at Buff Ledge?

Encounter at Buff Ledge

The two witnesses, camp counselors Michael Lapp and Janet Cornell, were left behind one evening in August 1968 at the Buff Ledge summer camp on the shore of Lake Champlain. All the other campers and counselors had gone to a swim meet in nearby Burlington, Vermont. At about 8 p.m., Lapp and Cornell were sitting on the camp dock when they saw a distant UFO in the sky over the lake. The distant UFO disgorged two smaller UFOs, one

of which maneuvered near them, plunged briefly into the lake, and then reappeared in the air and approached the dock on which they were standing. Lapp consciously remembers seeing a transparent dome on the top of the UFO and consciously remembers communicating, telepathically, with the two humanoids he could see inside the dome. Janet Cornell remembered seeing the UFO approach the dock. The UFO hovered over them, shone down a beam of light, and that is the last thing either of them remembered until they heard car doors slam and voices as the campers returned from the swim meet at about 9 p.m. Michael Lapp as well as several returning campers and counselors consciously recalled seeing the departing UFO.

Michael Lapp eventually contacted the Center for UFO Studies, a national UFO investigation group, to try and learn more about his memories of the close encounter and about the missing time. The Center referred him to Walter Webb, who lived in the Boston area. Webb interviewed Lapp, who lived in the Boston area. Webb was then able, with Lapp's help, to contact Janet Cornell, who had moved away, but who was willing to come to Boston to be interviewed. Both witnesses wanted to get to the bottom of an experience which was more clearly remembered by Lapp, but which occupied a troubling fringe of Janet Cornell's memory.

At Webb's suggestion, both Lapp and Cornell volunteered to participate in hypnosis sessions that Webb arranged with Boston-area hypnotherapists. Lapp and Cornell narrated, under hypnosis, that they had been levitated in a beam of light from the dock into the hovering UFO and had then communicated telepathically with the occupants. Lapp remembers watching Cornell undergo an examination that was similar to the experience described by Betty Hill. They remembered being transported to a larger ship at what appeared to be a great distance from the earth, which they could see through the dome of the smaller UFO as it approached the larger one. Lapp's memories were more specific; he remembered seeing other humans aboard the large craft and then being returned, in some uncertain fashion, to the dock, where he remembered consciously seeing the smaller UFO depart and hearing and seeing the campers returning from Burlington.

Webb worked hard to track down and contact other campers and counselors who might have seen the UFO depart as they were returning to camp or who might have talked to Lapp and Cornell immediately after their experience. Years after the event he was able to locate some people who remembered the lights over the dock amid the bustle of returning from the swim meet. Webb's thorough investigation, and the care with which he gathered and presented his results, again make it clear that Michael Lapp and Janet Cornell's experiences were *narratives* reported as *facts* in the sense reported earlier. And their narratives come with touchstones, in

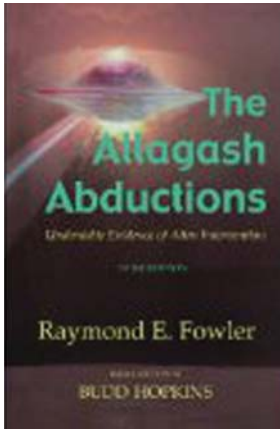
the language of R. V. Jones: consistencies that strengthen the intelligence analyst's confidence in the new information. In this case the touchstones include Lapp's and Cornell's *consciously recalled UFO memories* before the abduction experience, their conscious experience of *missing time*, and the *eyewitness testimony of Lapp and other witnesses* who saw the UFO leave as the campers returned. Their touchstones are similar to Barney and Betty Hill's.

The Allagash Abductions

The third intelligence report comes from Raymond Fowler, who wrote *The Allagash Abductions*. Fowler, who had written several books on UFOs, was contacted by UFO witness Jim Weiner after Fowler gave a talk at a UFO symposium in 1988. Weiner had for years wanted to talk to a knowledgeable person about his August, 1976, experience in the Maine woods.

Jim Weiner, his twin brother Jack, and their friends Chuck Rak and Charlie Folz went canoeing in the Allagash Wilderness in Maine from August 20 to August 26, 1976. After climbing Mount Katahdin, the highest peak in Maine, they took an air taxi service into the wilderness, landed on Telos Lake, and began canoeing through the Allagash chain of lakes. Their first campsite was on Chamberlain Lake. After dark on that first night, a UFO rose into view above the trees. Seen through their binoculars, "It was an object only a few miles away and approximately 200 feet above treetop level." The next day they paddled from Chamberlain Lake into Eagle Lake, and toward the end of the day they camped at a remote and deserted campsite. After failing to catch fish in the afternoon, they decided to try again after dark. They built a large beacon fire at the campsite so they could find their way back to shore on the moonless night, and then all four campers set out in one canoe. After they had canoed about a quarter-mile from shore, "I turned around and saw a huge, white/yellow spherical object hovering just above treetop level at the southern shoreline. It was approximately the size of a two-story house in circumference" (*The Allagash Abductions*, p. 25). All four of the canoeists remember seeing the object. One of them flashed an S.O.S. at the object. It approached and hovered over the canoe, shining a beam of light down on the canoe.

The next conscious memory the campers shared was paddling to shore toward the embers of the dying beacon fire they had lit earlier in the evening. From the time the UFO hovered over their canoe, shortly after they left the shore, until they found themselves paddling back toward the shore, they remembered nothing. They did remember seeing the UFO from the shore, as it tilted, shone a beam of light upward, and disappeared into the dark sky. They felt tired and disoriented, and fell asleep shortly afterward.



After the excitement of the remembered close encounter, and the puzzling failure of memory from the time the UFO hovered over the canoe until they paddled back to shore, the remaining days of their trip passed in a desultory fashion. Several years after the incident, Jack Weiner started having nightmares. Like Betty Hill's dreams following the New Hampshire incident, Jack Weiner's nightmares were terrifying recapitulations of an alien abduction experience that began when the campers were levitated out of their canoe, and into the hovering UFO, inside a conical beam of white light. It was Jack's nightmares, and his own troubled recollections of the close encounter, that led Jim Weiner to seek out Ray Fowler and—as was the case with the Hills, and with Michael Lapp and Janet Cornell—to arrange with Fowler for therapeutic intervention in the form of hypnosis, so that all of “the Allagash four” could try to bring to consciousness any further details that could fill in the missing time following their consciously remembered close encounter.

And as was true of the Hills, of Michael Lapp, and of Janet Cornell, all four remembered being levitated into the UFO, being examined by the occupants, and eventually being levitated back into their canoe. *The Allagash Abductions* includes illustrations of the occupants produced by two of the artistically talented friends, and it includes clear narrative accounts by all four friends of their hypnotically recalled experiences inside the craft. The touchstones that lend consistency to this report and credibility to the other parts of the narrative are the *conscious recall of the first UFO and the subsequent close encounter*, the *missing time* between the time they left the shore and returned to it, and the *physical evidence of the dying embers* of the large beacon fire that they had lit on the beach, as well as their *conscious recall* of the departing UFO. The touchstones from the “Allagash” four narratives are similar to the touchstones in the Barney and Betty Hill narratives and the Michael Lapp and Janet Cornell narratives.

The Intelligence Analysis

Touchstones are the indicators that the eight narratives summarized here represent some aspect of external reality. Each of the narratives includes conscious recall of a *close encounter*, and each includes conscious recall of *missing time*, and each narrative includes other touchstones as well. The presence of these repeated and reliable references to aspects of the external

reality in the eight narratives gives us reason to think that other parts of the narratives also express aspects of external reality.

As R. V. Jones knew from his own experience, skeptics start by assuming that something they haven't figured out how to do can't be done, so they cannot believe that someone else has figured out how to do it. Scientific skeptics certainly can't build—or explain how to build—an extraterrestrial UFO; therefore, in the skeptics' minds, there are no extraterrestrial UFOs, and consequently narratives about extraterrestrial UFOs and abductions, however consistent, cannot possibly represent external reality. Jones had the same problem when he discovered—in contradiction to experts' opinion that it could not be done—the very real electronic guidance beams that the Luftwaffe was using to navigate to British targets, and then again when he gave an accurate estimate—in contradiction to experts who did not have access to his “touchstone” intelligence reports—of the very real size and payload of the V-2 rocket.

I have discussed only a small part of the intelligence analyst's case for stating that extraterrestrials are catching and releasing humans in order to study us. The rest of the case includes scores of other *narratives as facts* describing similar experiences, presented in books and papers beyond the scope of this review. It also includes the results of research papers that report the psychological profiles of self-reported abductees which show that the witnesses do not suffer from major personality disorders (Rodeghier, Goodpaster, & Blatterbauer 1991). The evidence about extraterrestrial UFOs and abductions has been accumulating in trade books, specialty magazines, monographs, and peer-reviewed scientific journals for the past sixty-five years.²

Why aren't the *people who matter* paying attention? In R. V. Jones' day, the people who mattered were the senior scientists who said that electronic beams couldn't be used to navigate over England, until Jones sent up airplanes with radios tuned to the beam frequencies and found the beams. They were the senior scientists who could not accurately estimate the size of the V-2 rocket because they didn't know how to build a liquid-fueled rocket motor and who did not have Jones' information about how the rocket worked. In our day, the people who matter are the establishment scientists and media gatekeepers who refuse to look at the evidence that some UFOs are extraterrestrial vehicles because they don't have a theory about how UFOs work—despite the overwhelming evidence that extraterrestrial UFOs are here.

Thomas Kuhn, writing in *The Structure of Scientific Revolutions*, highlighted the extraordinary resistance of modern scientists to recognizing the simple existence of observable facts that are not subsumed under an

existing scientific theory or that are not explained by a newer or competing theory. According to Kuhn, if there is neither an existing theory nor a competing theory to explain an observation, the observation is of no interest to establishment science. He wrote, “to reject one paradigm [theory] without simultaneously substituting another is to reject science itself” (Kuhn 1962:78–79). In the mindset of most establishment scientists, because we don’t know how to make machines that do what extraterrestrial UFOs are observed to do, extraterrestrial UFOs *simply cannot exist*.

Political scientists Alexander Wendt and Raymond Duvall, drawing on a psychological theory developed by Leon Festinger, explained that accepting the reality of extraterrestrial UFOs upsets many important apple carts. Our species spent millenia before outgrowing the habit of appeasing powerful gods of nature: crocodiles, floods, volcanoes, hurricanes, and the like. The technocratic bureaucracies that now run modern societies are not interested in ceding power to, or even acknowledging the existence of, technologically superior beings who happen to be visiting earth and who are catching and releasing some of us for purposes of study. Festinger’s theory of “cognitive dissonance” explains how easy it is to ignore uncomfortable facts by adjusting one’s mental attitude toward them. This can be done by finding a way to metaphorically “shoot the messenger.” For example, if you persuade yourself that the scientist who tells you that there is strong evidence that ET crews “catch and release” humans is a ‘wacko’ or a ‘contactee’ or a ‘believer,’ then or his or her statements can be ignored. It is routine in science, in politics, and in everyday life to dismiss evidence by denigrating the reporter. The political and media meritocracies follow the easy line taken by establishment science: Because “science” doesn’t recognize the existence of extraterrestrial UFOs, the people who report such evidence are “unscientific;” therefore they must be wrong, and the rest of us don’t have to worry about it. Following the same line of reasoning, the U.S. government won’t publicly recognize the existence of extraterrestrial UFOs because that would upset everyone (Wendt & Duvall 2010:269–281).

John J. Callahan, formerly the Washington, D.C.–based Division Chief of the Federal Aviation Administration (FAA) Accidents, Evaluations, and Investigations Division, received a query from the FAA Alaska regional office about a giant UFO, tracked on radar, that had, in his words, “chased a Japanese 747 across the Alaskan sky for some 30 minutes” on November 7, 1986. The Alaska office wanted to know what to tell the media. Callahan asked them to send him the radar tapes and the taped conversations between the 747 crew and the air traffic controllers. He played the tapes in a radar simulator, first for his FAA boss and then, by request, to a meeting of a White House experts. At the end of the White House meeting, a CIA agent

took the tapes and said “This event never happened; we were never here. We’re confiscating all this data and you are all sworn to secrecy.” Callahan was not impressed; when he retired, he wrote up the entire incident and it was published in 2010 (Kean 2010:229–229).

The U.S. Department of Defense website says this about UFOs:

- No UFO reported, investigated, and evaluated by the Air Force has ever given any indication of threat to our national security.
- There has been no evidence submitted to or discovered by the Air Force that sightings categorized as “unidentified” represent technological developments or principles beyond the present-day scientific knowledge.
- There has been no evidence indicating that sightings categorized as “unidentified” are extraterrestrial vehicles (<http://www.defense.gov/faq/pis/16.html>).

As Callahan said in the last sentence of his report: “So, who are you going to believe, your lying eyes or the government?”

The theme of this report can be summarized in one short sentence spoken by Samuel Johnson and recorded many years ago: “Human experience, which is constantly contradicting theory, is the great test of truth” (<http://www.samueljohnson.com/writing.html>). Despite the institutional blindness of modern science to anomalous observations, our scientific predecessors of the seventeenth, eighteenth, and nineteenth centuries knew, and we know, that knowledge begins with systematic observations, observation being the foundation on which experiment, and eventually theory, is built. Before there is science, before there are experiments, before there is theory, there are observations and there is knowledge. Knowledge precedes all of science. Knowledge is in the possession of anyone with the patience and the competence to read and understand it. We know, based on sixty-five years of accumulated observation, that some of what both people and instruments report as UFOs have characteristics that exclude explanations such as psychological aberrations, visual misperceptions, natural phenomena, or human artifacts like airplanes, balloons, or satellites. Having excluded other explanations, extraterrestrial vehicles—not psychological aberrations, visual misperceptions, natural phenomena, or human artifacts—become the residual and default explanation. Neither the failure of scientists to produce a theory to explain how extraterrestrial UFOs work, nor the failure of the U.S. government to admit there is any such knowledge, invalidates the conclusion drawn from human experience. The conclusion that some UFOs are extraterrestrial, based as it is on a vast database of *narratives*

as fact and supplemented by an almost equally vast database of corollary instrumental evidence, is established, in my opinion, beyond reasonable doubt, which is the high standard of proof required to convict someone of a crime. The conclusion that UFO crews “catch and release” humans, based on almost fifty years of “touchstone” *narratives as fact* presented by reliable reporters, is, in my opinion, established on the balance of probability, which is the standard of proof required to win a civil lawsuit. The extraterrestrial UFO evidence, strong enough to win conviction in a criminal case, should certainly get our attention. We had also better pay attention to the “catch and release” evidence, strong enough to win a civil lawsuit—because sooner or later we are most likely going to have to do something about it.

Notes

- ¹ Not reported in *The Interrupted Journey*, but revealed when all of the hypnosis session tapes were released to Kathleen Marden and Stanton Friedman, and reported in their book, *Captured!*, which was written after Barney and Betty Hill had died.
- ² Much of this evidence is reported in my book *UFOs, ETs, and Alien Abductions: A Scientist Looks at the Evidence*, San Francisco: Hampton Roads Press, 2013.

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References

- Erdelyi, M., & Kleinbard, J. (1978). Has Ebbinghaus decayed with time? The growth of recall (hypermnesia) over days. *Journal of Experimental Psychology: Human Learning and Memory*, 4(4), 275–289.
- Erickson, M. H., & Rossi, E. L. (1979). *Hypnotherapy: An Exploratory Casebook*. New York: Wiley.
- Fuller, J. G. (1996). *Incident at Exeter: The Story of Unidentified Flying Objects over America Today*. New York: Putnam.
- Jones, R. V. (1978). *British Scientific Intelligence 1939–1945*. New York: Coward, McCann & Geoghegan; London: Hamish Hamilton.
- Kean, L. (2010). *UFOs: Generals, Pilots, and Public Officials Go on the Record*. Harmony House. pp. 222–229.
- Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*, second edition. University of Chicago Press.
- Poole, D. A., & White, L. T. (1991). Effects of question repetition on the eyewitness testimony of children and adults. *Developmental Psychology*, 27(6), 975–986.
- Wendt, A., & Duvall, R. (2010). Militant agnosticism and the UFO taboo. In L. Kean, *UFOs: Generals, Pilots, and Public Officials Go on the Record*, Harmony House.

BOOK REVIEW

The Virtue of Heresy: Confessions of a Dissident Astronomer by Hilton Ratcliffe. BookSurge Publishing, 2008, second edition. 462 pp. ASIN B0062ID1NC.

Before I even opened this book, the title reminded me of my meeting with Grote Reber, the amateur astronomer who took seriously Karl Jansky's discovery of radio noise coming from the centre of our Galaxy when most professional astronomers ignored it. As a result, Reber became, with Jansky, one of the founding fathers of radio astronomy. In our brief conversation, we quickly agreed that words like "heresy" or "orthodoxy" had no place in the vocabulary of science. Tacit in that agreement, however, was the acknowledgement that the concepts, if not the words, are alive and well in the scientific community. I do not mean that scientists burn each other at the stake—no such reports have reached my ears!—but granting councils can deny research funds, time allocation committees can deny access to experimental and observing facilities, and editors or referees can delay or even prevent publication. Readers of this *Journal* do not need me to persuade them that all these things happen.

At the present time, cosmology is one of the areas of science in which the practices outlined in the previous paragraph may be found. As is well known, the majority of working cosmologists believe that the universe began about 13.7 billion years ago in an event that has become irrevocably, although perhaps unfortunately, known as the Big Bang. Many of those who subscribe to this theory seem to be sure that we have almost reached a complete and final understanding of the origin and evolution of the universe and that the giant telescopes for which plans are now on the drawing-board will take us the final few steps. Notwithstanding this widespread consensus, there are a significant number of dissidents who include several who have proved themselves to be good and competent scientists and cannot be dismissed as cranks. They are the heretics and dissidents of the title of this book, the author of which, Hilton Ratcliffe, also subscribes to the "heresy." I have not worked in cosmology myself and do not claim to have all the arguments either for or against the consensus view at my fingertips, but my reading of the history of science inclines me to be cautious about any claim to have reached a final theory. Scientific cosmology is barely a century old, whether you consider it began with publication of Einstein's (1915)

general relativity theory or that of Hubble's (1929) discovery of the law of recession of the "spiral nebulae." At present, Big-Bang cosmology leaves us with at least two puzzles, known as "dark matter" and "dark energy." I think it entirely possible that they may be playing the same role in modern cosmology that epicycles eventually played in Ptolemaic cosmology, that is to say that one day they will turn out to be the clues that in some sense we are on the wrong path. I suspect that fifty or a hundred years from now the consensus in cosmology may be very different from that of today. I approached this book hoping for a reasoned and dispassionate debate of the relative merits of Big-Bang cosmology and of other theories that might replace it. Unfortunately, I was disappointed in my expectation.

My first disappointment was the discovery of a number of factual errors (mainly of an historical nature) in the early part of the book. It would be tedious to list them all and I shall content myself with describing two. First, on p. 43, there is a reference to William Herschel's "astute prediction" that the "spiral nebulae" (i.e. other galaxies) were aggregations of stars. There certainly was a lively debate throughout the eighteenth and early nineteenth centuries about the nature of nebulae, which was only finally resolved by the application of spectroscopy in the late nineteenth century, which showed that some nebulae exhibited spectra like those of stars, while others showed light concentrated in emission lines. Herschel could not have made predictions, astute or otherwise, about spiral nebulae for the simple reason that their spiral nature was not recognized until 1845, more than twenty years after his death. The discovery of spiral structure was the major discovery made by Lord Rosse's six-foot telescope in Ireland, an instrument whose otherwise disappointing performance was largely explained by its design being ahead of its time and its location being hardly the most favorable, astronomically speaking.

The second example is more important because it totally misrepresents the views of Abbé, or Canon, Georges Lemaître (*not* Abbot as Ratcliffe insists on calling him), recognized as one of the founders of what has become Big-Bang cosmology. In 1951, the then Pope, Pius XII, made a statement welcoming what was then a barely developed Big-Bang theory as a kind of confirmation of the inner meaning of the first chapter of *Genesis*. According to Ratcliffe (p. 66), this statement was made in an address to the Pontifical Academy of Sciences of which Lemaître was President, and Ratcliffe strongly implies that it was made at Lemaître's instigation, for "he sought to express his theology in the syntax of science" (p. 61), whatever that means. In fact, as people who knew Lemaître have told me, he was a restraining influence and remonstrated with the Pope for making this statement. Even Lawrence Krauss (2012), no friend of organized religion or any kind of

theistic belief, recognizes Lemaître's restraining role in this episode. It is perhaps worth quoting Helge Kragh (2007), a thoroughly reliable historian of science on the subject of Lemaître's views on the relations of science and religion:

As a priest and cosmologist Lemaître was very much aware of the problematic relationship between the Christian dogma of a world created by God and the scientific theory of a universe starting in a Big Bang. However, contrary to some other cosmologists (as well as theologians), he was careful not to confuse science and theology and not to use one of the fields as a legitimization for the other. Lemaître believed that science and theology were separate fields and that cosmology neither confirmed nor refuted the Christian notion of a world created by God. This he made clear in his address to the 1958 Solvay meeting, where he pointed out that theoretical cosmology "remains entirely outside any metaphysical or religious question."

Incidentally, Kragh also tells us that Lemaître did not become President of the Pontifical Academy until some years after the death of Pope Pius XII.

This no doubt unintentional misrepresentation of the views of Lemaître arises in part from Ratcliffe's fixed belief that science and religion are and always have been in a state of conflict. He appears to be totally unaware of recent scholarship by historians of science that show that this has not been the case. Two books that would introduce him to that scholarship are *Science and Religion: Some Historical Perspectives* by J. H. Brooke (1991) and *Reconstructing Nature: The Engagement of Science and Religion* by J. H. Brooke and G. Cantor (1998). This belief of his leads him into other misrepresentations. For example, on p. 139 he refers to Fred Hoyle, whom he clearly admires, as "a famous atheist." That may have been true of the young Hoyle; certainly his famous series of British Broadcasting Corporation talks in 1950 (to which I listened avidly and which were later published [Hoyle 1951]) created that impression on many listeners, but Ratcliffe should re-read the last chapter of Hoyle's (1994) autobiography, a book which he quotes in another context to be referred to later. That chapter was certainly not written by a conventional believer, but neither was it written by an atheist. Again, on p. 54, we are told that "Church and Crown forced astronomers, against their better judgement, to practice astrology." This is rather rich. At least until the invention of the telescope, astronomers and astrologers were the same people. Certainly monarchs and even popes would employ them to cast horoscopes, but the official attitude of the Church was that astrology contradicted the doctrine of human free will and was therefore false. After the Reformation, some Protestant theologians were, if anything, even more adamantly opposed to astrology. Tycho Brahe,

perhaps the greatest of all pre-telescopic observers, in early life actually argued for a limited validity of astrology *against* the Lutheran theologians of his native Denmark (Thoren 1990).

It may be argued that, unfortunate though these errors are, they are not relevant to the truth or falsity of Big-Bang cosmology, or of any other cosmological theory. They do, however, betray a carelessness about checking facts, many of which could have been quite easily checked. Even friendly readers may begin to wonder how reliable a guide Ratcliffe is, and hostile readers will leap on these errors to discredit both him and his cause.

Unfortunately, there is worse to come. Two very simple definitions are expressed in a very confused way. On p. 55 we are told “Developments in optics revealed a property of light known as *parallax* . . .” (italics in the original). It is very strange to call parallax a property of light. If it is a property of anything, that would be space. All it means is that if you move from one place to another sufficiently far away, then the direction you must look toward to see a distant object changes. No “developments in optics” were required to recognize this fact. Even before the telescope was invented, Copernicus and his critics were perfectly well aware that, if the Earth revolves around the Sun, the fixed stars must show annual parallactic motions, and the failure to detect such motions until well into the nineteenth century provided the contemporaries of Copernicus, and later of Galileo, with the strongest argument against heliocentricism. On pp. 188–189, Ratcliffe describes Newton’s discussion of the Moon’s motion as a combination of hypothetical rectilinear motion with an acceleration toward the Earth. He concludes this discussion with the amazing sentence: “The Moon combines two motions in a trajectory known as *angular momentum*” (italics in the original). Angular momentum is a relatively simple concept in Newtonian mechanics and is certainly *not* a trajectory.

Perhaps these examples are just unfortunate turns of phrase that escaped revision—we can all make that sort of slip—but my review copy is a second edition and there has been an opportunity to make revisions. Did no reviewer of the first edition comment on these things? Once again, Ratcliffe has given ammunition to his foes and embarrassed his friends. Later in the book he is going to discuss the quantum analogue of angular momentum, namely, *spin*, even questioning its reality (p. 373). Why should we trust him on that matter if he does not understand the classical concept?

There are deeper levels of inconsistency in the book. Ratcliffe appears to believe that there is a conspiracy to prevent publication of cosmological theories other than those based on some version of the Big Bang, and I have already conceded that he has some grounds for that belief. On the other hand, he assures us that there are hundreds of cosmologists throughout the

world who dissent from the consensus. Judging by the references scattered through the book, they do eventually find an outlet for their ideas.

Ratcliffe has little time for the “cosmological principle.” As enunciated by E. A. Milne, this is a statement that *on a sufficiently large scale* the universe is homogeneous and isotropic. Perhaps Ratcliffe is right to be cautious about that. He does not discuss the *perfect cosmological principle*, first enunciated, I believe, by Hermann Bondi, which extends the ideas of homogeneity and isotropy to all times. It was, in fact, a basic tenet of early versions of steady-state cosmology. A consequence is that throughout all of time the universe will appear to be much the same to any observers that there may be. Clearly, this latter principle puts even stricter constraints on cosmological theories and will not hold in the kind of evolving universe envisaged in Big-Bang cosmology. Yet, in his opening chapter, which is avowedly a science-fiction episode, Ratcliffe imagines that he has been transported back in time to before the Big Bang is supposed to have happened, only to find that the universe looks much the same as our present-day one with which he is familiar. In other words, although the cosmological principle is not valid, its stricter relative, the perfect cosmological principle, holds.

Perhaps the greatest inconsistency, however, arises from Ratcliffe’s belief that the universe is designed. He does not mean, as many neo-Darwinian evolutionists do, that there is only an appearance of design, but that the appearance is reality. I am inclined to agree with him, but the inconsistency lies in his total rejection of the idea of a designer. Instead, he postulates something called the “X-stream” which is never clearly defined (I do not know if the near pun on “extreme” is intentional) but appears to contain all the templates needed to produce the designs we observe. The X-Stream is, in fact, Ratcliffe’s god—not a very interesting god likely to inspire awe and worship, but nonetheless a god introduced to explain a design that is otherwise inexplicable. Ratcliffe can no more demonstrate the X-Stream’s existence than Christians or Moslems can “prove” the existence of the God they worship.

Another inconsistency concerns neutron stars. On p. 235 Ratcliffe writes of a model for the Sun that has a neutron star at its core, whereas on p. 253 (perhaps the permutation is significant!) he asks “What if there is no such thing as a neutron star?” Ratcliffe wants to put a neutron star at the core of the Sun because he wants that core to be iron-rich and he believes that the neutron star being a supernova remnant would be so. This may seem a far cry from the question of which cosmological theory is the best, but of course one of the claimed successes of Big-Bang cosmology is its prediction of the primordial helium abundance, which is consistent

with the proportion of helium found in most of the stars we observe now. In support of a low hydrogen abundance for the Sun, Ratcliffe refers to Hoyle's (1994:153–154) autobiography and an account of a conversation he had with Eddington in 1940. Both of them believed that the interior of the Sun contained about 35 percent hydrogen and 65 percent iron, and, as Hoyle says, such a composition can be made to account for the Sun's luminosity. The Sun's luminosity can also be accounted for with (approximately) 75 percent hydrogen, 25 percent helium, and no more than 2 percent of all the other elements combined. Ratcliffe doesn't tell us that Hoyle ends the account of his conversation with the remark “. . . I was able to show, to my surprise, that the high-hydrogen, low-iron solution was to be preferred for interiors as well as atmospheres.” In fact, attention was first drawn to the high-hydrogen solution by Cecilia Payne (later Payne-Gaposchkin) in the late 1920s. Astronomers of the generation of Eddington and H. N. Russell had difficulty accepting it, as is recounted by DeVorkin (2000) who, incidentally, quotes Lyman Spitzer as saying that the predominance of hydrogen in the universe was widely accepted as early as 1930.

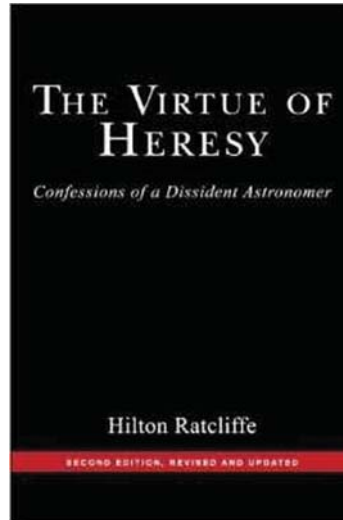
It would be foolish and unscientific to deny the possibility that some stellar composition radically different from that which most of us now assume could account just as well for the observations, but we do now have grids of models based on the 75 per cent or so of hydrogen, that represent well both the main-sequence stars and those that have begun to evolve off that sequence. Stellar masses, radii, and luminosities are now all much better known than they were in 1940 when Hoyle and Eddington had their conversation, and the model calculations have been submitted to just the sort of empirical tests that Ratcliffe maintains all scientific theories should face. Until the advocates of other models have produced a similar grid and tested them against both the color-magnitude diagrams of star clusters, and the quantitative data from well-observed binary systems, it is neither perverse nor dogmatic for astronomers to prefer the models that have passed empirical tests.

Chapter 2 of the book contains Ratcliffe's basic assumptions, presented as dogmatically as any manifesto by the supporters of Big-Bang cosmology. It is not so much a statement of his heretical credo as, to continue the religious metaphor suggested by the book's title, a sweeping prophetic call to get rid of all foreign idols and to return to the true faith—and the true faith turns out to be Newtonian mechanics, complete with its absolute time and space. (“Space goes on for ever, and time with it,” p. 27.) Indeed, the last two chapters of the book are critiques, respectively, of relativity theory and quantum theory. These critiques were adumbrated in Chapter 2 where, again on p. 27 and going on to the next page, we read: “Reality is independent of

observation or consciousness and has no discernible or conceivable limits.” Again, on p. 32: “In all of existence, there are only *four* things: *Space, Energy, Force, Time*” (italics in the original). Matter is considered to be a form of energy; while consciousness, and even the X-stream, appear to have vanished. On p. 382 we are told: “Consciousness is not kinetic and is incapable of dynamic effect.” Perhaps that is news to some readers of this Journal! Only on the very last page of the book is there a suggestion that consciousness might be important after all.

Given the assumptions and attitudes presented in the last paragraph, it is scarcely surprising that Ratcliffe has problems with the relativity of space and time and the possibility that the act of observation may, for example, determine the spin of an electron. Nevertheless, I think he was unwise to include the last two chapters in his book. It is one thing to question the prevailing consensus on the origin and evolution of the universe, and quite another to dismiss virtually all the work of the twentieth century in theoretical physics. By attacking so many targets, Ratcliffe distracts attention from what to him, surely, is the most important point and once again makes it easy for those who disagree with him to discredit both him and the cause that he has at heart.

In Big-Bang cosmology we have a prime example of a paradigm in the sense that that word was used by Kuhn (1962). Most scientists work within a paradigm doing what Kuhn called “normal science.” I did so myself in my studies of interacting binary systems. It is, after all, given only to a very few to make groundbreaking studies that open up entirely new fields of research or radically change the way that we look at old ones. There is nothing wrong with working within a paradigm. If that paradigm is wrong or inadequate, the anomalies within it will eventually bring it down—as epicycles did for heliocentric cosmology and as I have suggested “dark matter” and “dark energy” may one day do for Big-Bang cosmology. Only if those who work within the paradigm come to believe that it represents ultimate truth and should be unquestioned does any problem arise. Ratcliffe obviously believes that this has happened with modern cosmology and that is a reasonable belief to hold, but I would have been happier if less of his book had been devoted to trying to make so much of modern science look



ridiculous, and rather more to showing how other theories might be superior.

In one sense the problem is with our peer-review system. The leaders of “normal science” also are those most likely to be refereeing papers, editing journals, and reviewing applications for research grants and telescope time. Being human, they tend to prefer those who toe the party line. We have to have some form of peer review. Observing or experimental facilities are expensive to build, maintain, and run, and the money to do all that usually comes from the public purse. Journals are likewise expensive to produce and have limited space. We do have a responsibility to make sure that all these resources are used as wisely as possible. Even this Journal, devoted to giving a voice to scientifically unpopular views, employs referees. It is almost inevitable that points of view contradicting the current consensus in any area of mainstream science will be marginalized unless referees and committee members make a special effort to realize that a consensus may be wrong. Asked to review a research proposal by Wittgenstein, Bertrand Russell (1968) wrote the following:

The theories contained in this new work of Wittgenstein's are novel, very original, and indubitably important. Whether they are true, I do not know. As a logician who likes simplicity, I should wish to think that they are not, but from what I have read of them I am quite sure that he ought to have an opportunity to work them out, since when completed they may easily prove to constitute a whole new philosophy.

I would like all editors, referees, and committee members to keep framed copies of that quotation on their desks, for it encapsulates the spirit that should animate all who engage in such activities. I freely acknowledge that I have not always lived up to that spirit myself and have made errors of judgement in both ways. Each such failure brings us closer to establishing the “orthodoxy” and marginalizing the “heretics” which, as Reber and I agreed, is contrary to the true spirit of science. Now is a time to consider these matters carefully, because the existence of the Internet and the rise of desktop publishing are inevitably changing the ways in which scientific results and theories are being disseminated. As I have already hinted, the “heretics” of cosmology do seem to get their ideas into print one way or another. The problem is not so much in producing a book as in distributing it. I doubt if many people working within the Big-Bang paradigm are even aware of the existence of this book of Ratcliffe's.

One final comment is that, in some ways, this book reminded me of a Presidential address delivered to the Royal Astronomical Society by Herbert Dingle (1953), Professor of the History and Philosophy of Science at the University of London. Dingle no more liked the mainstream cosmology of

his day than Ratcliffe likes that of ours. He was also possessed of a rapier wit that he displayed to the full in this address—great fun to read and to listen to, so long as you are not the target! Some of Ratcliffe’s criticisms echo what Dingle wrote more than sixty years ago. In particular, he praised the mathematical ingenuity of cosmologists while arguing that it had misled them to lose all contact with reality. The cosmological principle he renamed the “cosmological assumption,” and the perfect cosmological principle became the “cosmological presumption”! Dingle’s target, however, was not Big-Bang cosmology, which had not then developed to the extent it has today. Steady-State cosmology was not only still considered viable but was actually preferred by many. Dingle’s targets, rather, were E. A. Milne and his kinematic relativity, and Hoyle, Bondi, and Gold and their steady-state theories. Now fashion has turned full circle as Ratcliffe uses Dingle’s arguments to defend Hoyle, in particular, against those who adhere to the current consensus in cosmology.

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References

- Brooke, J. H. (1991). *Science and Religion: Some Historical Perspectives*. Cambridge, U.K.: Cambridge University Press.
- Brooke, J. H., & Cantor, G. (1998). *Reconstructing Nature: The Engagement of Science and Religion*. Edinburgh, UK: T and T Clark.
- DeVorkin, D. H. (2000). *Henry Norris Russell: Dean of American Astronomers*. Princeton, NJ: Princeton University Press. Chapter 14.
- Dingle, H. (1953). On Science and Modern Cosmology. *Monthly Notices of the Royal Astronomical Society*, 113, 393–407.
- Einstein, A. (1915). Die Feld Gleichungen der Gravitation. *Sitzungsberichte Preussische Akademie der Wissenschaften*. p. 844.
- Hoyle, F. (1951). *The Nature of the Universe*. Oxford, UK: Blackwell.
- Hoyle, F. (1994). *Home Is Where the Wind Blows*. Mill Valley, CA: University Science Books. pp. 153–154 and Chapter 28.
- Hubble, E. P. (1929). A Relation between Distance and Radial Velocity among the Extra-Galactic Nebulae. *Proceedings of the National Academy of Sciences*, 15, 168–173.
- Kragh, H. (2007). In *Biographical Encyclopedia of Astronomers, Volume 1*, edited by T. Hockey. Germany: Springer. pp. 689–690.
- Krauss, L. M. (2012). *A Universe from Nothing: Why There Is Something rather than Nothing*, New York: Free Press. p. 5.
- Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*. Chicago, IL: University of Chicago Press.
- Russell, B. (1968). *The Autobiography of Bertrand Russell; The Middle years 1914–1944*. Toronto, Canada: Bantam Books of Canada. p. 288 [Originally published in London by Geo. Allen and Unwin]
- Thoren, V. E. (1990). *The Lord of Uraniborg: A Biography of Tycho Brahe*. Cambridge, UK: Cambridge University Press. pp. 81–84.

BOOK REVIEW

Not Even Trying: The Corruption of Real Science by Bruce G. Charlton. Buckingham (UK): University of Buckingham Press, 2012. 144 pp. £10 (paperback), \$9.99 (Kindle). ISBN 978-1908684189.

Bruce Charlton describes in trenchant tone and terms the state of contemporary modern science in what I've called its decadent third stage (Bauer 2013). Lacking citations, the book is really an extended essay, but no informed observer will doubt the comprehensive accuracy with which Charlton points to present-day careerism, bureaucracy, overspecialization, dysfunctional incentives, and snowballing dishonesty; there is too much "science" (Bauer 2014) and too much influence of self-interested forces from outside science (commerce, politics, the media), and insiders fear to rock the boat even when they recognize that it needs rocking. All of that is in the starkest contrast to the popular misconception of science (Charlton's "Real Science") as a disinterested search for truth.

Charlton dates the "extraordinarily rapid—yet dishonestly concealed—collapse" from that ideal Real Science (in my view accurately [Bauer 2013]), from about the middle of the 20th century, paralleling what has happened outside science (Barzun 2000). Though Charlton describes his aim as "*opening eyes to the obvious*, of clarifying the already-known" (p. 135), the book nevertheless illuminates causes and connections in ways that can be fresh and useful, for example in asserting inevitability: "The main problem is that when science becomes big, as it is now, the social processes of science come to control all aspects of science" (p. 116).

Still, human beings can make choices even if they are only limited ones, and Charlton does assign blame for some aspects of the sorry present circumstances, for instance to the "leaders" who don't allow themselves to acknowledge what they know is happening: "Many scientists are now dishonest even with themselves, in the privacy of their own thoughts" (p. 24). "Trying strictly to be truthful would indeed be regarded as evidence of naiveté, or—if persisted-with—actively dangerous" (p. 21). That is illustrated for me by the colleague of Peter Duesberg who faulted him for not realizing that scientific careers require political savvy and for not falling in line with mainstream views even though they may well be mistaken (Farber 2006: Chapter 1). "It may be impossible to get a job, or get tenure, or promotion—except by dumping idealism and scientific ambition and

embracing low-risk careerism” (p. 26); “shame may not lead to remorse but instead to rationalization, to self-exculpation, to the elaborate construction of excuses—and eventually a denial of dishonesty. In other words, shame may lead to aggressive hypocrisy” (p. 30).

Most researchers will bridle, of course, at the charges of hypocrisy and dishonesty. But, as Charlton points out, most applications for research funds now require statements about what useful applications are likely to emerge from the research, and any such statements constitute untruths because such outcomes cannot be honestly predicted. By seemingly small steps like this, the contemporary scene has been led toward increasing dishonesty and an untrustworthiness of the whole enterprise of “science.”

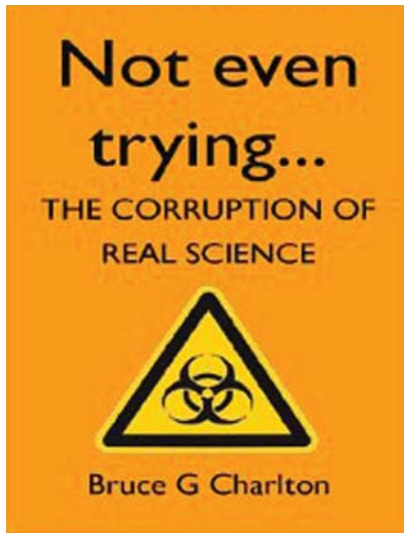
Consistent with these generalizations is that among those who are blowing the whistle (into the wind), for example Nobelist Randy Schekman (2013), there is a high proportion of people who are retired or otherwise have nothing to lose any more.

A point too often overlooked is that “Peer review is not necessary, nor was peer review a feature of science in its golden age, when science worked best” (p. 36). Peer review is nothing but a way of enforcing mainstream beliefs, akin to the functioning of committees in homogenizing everything to the lowest common denominator. “The over-expansion and domination of peer review in science is therefore a sign of scientific decline and decadence, not (as so commonly asserted) a sign of increased rigour” (p. 37). “Even those who publicly oppose and ridicule the idea of social construction of ‘reality’ behave as if a vote from a peer review committee of senior ‘scientists’ is the nearest possible approximation to truth—which is a view as close to pure reality-denying nihilism as makes no difference” (p. 45).

“[M]ainstream research is . . . simply unconcerned by matters such as seeking truth and rigid truthfulness in its discourse” (p. 18), a lack of concern that philosopher Harry Frankfurt (2005) has identified as the definition of intellectual bullshit. Charlton has coined the nice term “zombie science” for wrong theories that would remain moribund if it were not for support by vested interests.

Moreover, anonymous peer review, again like the use of committees, has the advantage that “*nobody-in-particular is identifiably to-blame* for the situation” (p. 37).

In Nazi Germany and the Soviet Union, political domination of science led to dysfunctional, erroneous “science” in biology and physics and chemistry. Commercial and bureaucratic domination of science in nominally free societies can lead to the same result, “science” that is wrong about the workings of the natural world—as we see already with respect to human-



caused global warming, HIV/AIDS, cosmology, and other matters (Bauer 2012). Contributing to going wrong is overspecialization:

“[M]icro-specialization is about micro-validation—which can neither detect nor correct gross errors in its basic suppositions. . . . [M]icro-specialization allows a situation to develop where the whole of a vast area of science is bogus knowledge; and for this reality of total bogosity to be intrinsically and permanently invisible and incomprehensible to the participants in that science” (pp. 91–92). Within micro-specialties, there can flourish ever-increasing

theoretical complexity, like Ptolemy’s wheels within wheels, serving to make any theory effectively unfalsifiable (p. 100). Science comes to lack coherence (p. 118 ff.): The theories of different micro-specialties are incompatible with one another, so that in effect these self-contained entities no longer care whether they are meaningful beyond their borders, again satisfying Frankfurt’s (2005) criterion for bullshit. HIV/AIDS offers an illustration of these points: The epidemiology, genomics, immunology, supposed mode of action, and “treatment” of HIV do not cohere to produce a believable overall understanding—research or practice in each specialty proceeds without any apparent need to make sense outside its own domain; thus laboratory researchers and biostatisticians are clear that “HIV” tests are non-specific and prone to false positives and cannot identify actual infection by a human immunodeficiency virus (Weiss & Cowan 2004), yet all practicing physicians including those who administer antiretroviral drugs take a positive “HIV” test as demonstrating infection.

Charlton also identifies the myth that there is a scientific method (Bauer 1992) as the basis for the misguided notion that science can produce anything desired just so long as enough resources are supplied (p. 95). Charlton follows Michael Polanyi and Michael Oakeshott in emphasizing the significance of *tacit* knowledge and understanding, which is at odds with contemporary reliance on “objective” tests and mass training; Real Science was passed on through individual master–apprentice relationships. I see this as reflecting a wider social context in which individual judgments have been increasingly suspected and denigrated as possibly biased, to be

superseded by robotic checklists as supposedly more fair—which has led to the burden of “political correctness” about which Charlton has written a separate book (Charlton 2013).

Real Science needs to be based, in Charlton’s view, on a conviction that there exists some transcendental truth, because doing science is not a value-free activity: “Although scientific knowledge is indeed morally neutral (and can be used for good or evil), the practice of science (including being a scientist) is certainly a moral activity—based on the habit of truth” (p. 41). Ends never justify means, means determine ends; so shading honesty in pursuit of funding results in progressively less honesty in the whole enterprise.

At the end of the text, Charlton describes his intellectual development, lists articles previously published by him, and mentions people whose ideas have been of particular significance for him. Earlier he had cited Erwin Chargaff, who recognized before most of us the decline of quality in science and who expressed his insights in delightfully acerbic prose (Chargaff 1977, 1978). Charlton does not talk about the end of his decade-long editorship of *Medical Hypotheses* when the publisher, Elsevier, capitulated to demands from HIV/AIDS researchers and emasculated the journal (Bauer 2012: Chapter 3), though the episode illustrates a number of the general points made in this book.

A reviewer dare not avoid mentioning Charlton’s extraordinarily prolific and extraordinarily idiosyncratic use of hyphens, which does not however interfere with the commendable clarity of the text.

Every scientist and would-be scientist and everyone interested in science ought to read this work.

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References

- Bauer, H. H. (1992). *Scientific Literacy and the Myth of the Scientific Method*. Urbana/Chicago, IL: University of Illinois Press.
- Bauer, H. H. (2012). *Dogmatism in Science and Medicine: How Dominant Theories Monopolize Research and Stifle the Search for Truth*. Jefferson, NC: McFarland.
- Bauer, H. H. (2013). Three stages of modern science. *Journal of Scientific Exploration*, 27, 505–513.
- Bauer, H. H. (2014). The Science Bubble. *EdgeScience*, #17, February, 3–6.
<http://cts.vresp.com/c/?SocietyforScientific/Of424188e5/67593d1609/4ebd0c59d1>
- Barzun, J. (2000). *From Dawn to Decadence: 500 Years of Western Cultural Life—1500 to the Present*. New York: HarperCollins.

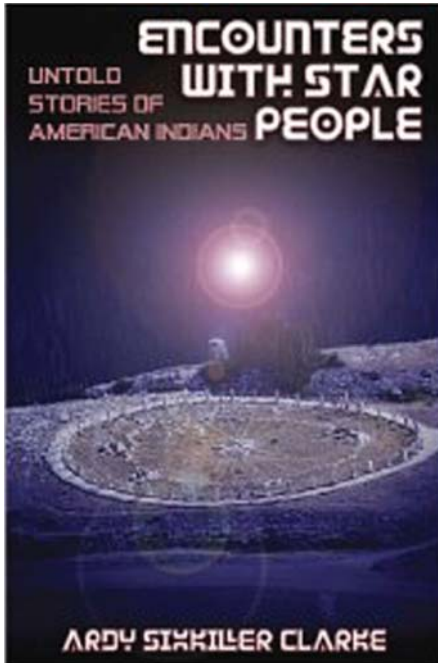
- Chargaff, E. (1977). *Voices in the Labyrinth*. New York: Seabury.
- Chargaff, E. (1978). *Heraclitean Fire: Sketches from a Life Before Nature*. New York: Rockefeller University Press.
- Charlton, B. G. (2013). *Thought Prison: The Fundamental Nature of Political Correctness*. Buckingham, UK: University of Buckingham Press.
- Farber, C. (2006). *Serious Adverse Events*. Hoboken, NJ: Melville House.
- Frankfurt, H. G. (2005). *On Bullshit*. Princeton, NJ: Princeton University Press.
- Schekman, R. (2013). How to break free from the tyranny of luxury journals (The Conversation). *eLIFE* (www.elifesciences.org), 20 December. <http://www.elifesciences.org/how-to-break-free-from-the-tyranny-of-luxury-journals-the-conversation>
- Weiss, S. H., & Cowan, E. P. (2004). Laboratory detection of human retroviral infection. Chapter 8 in *AIDS and Other Manifestations of HIV Infection*, fourth edition, edited by Gary P. Wormser, London: Academic Press.

BOOK REVIEW

Encounters with Star People: Untold Stories of American Indians by Ardy Sixkiller Clarke. San Antonio, TX/ Charlottesville, VA: Anomalist Books, 2012. 191 pp. ISBN 193-3665726.

For more than 20 years Dr. Ardy Sixkiller Clarke, a professor at Montana State University (now emeritus), has interviewed American Indians (her preferred term) and recorded accounts of their experiences with UFOs. She prefaced her book with an explanation that “Star People” belong to widespread Indian traditions, some that identify the stars as the home of native peoples, others that tell of “little people” and celestial visitors that continue to interact with Indians and sometimes help them. But she intended to study modern encounters rather than folklore or “ancient astronauts.” In her travels around the country, she collected more than 1,000 UFO stories that Indian people had to tell, and now recounts a sample of firsthand narratives for readers of this book.

The cases include several close encounters by police officers, a report of a UFO hovering over a missile silo, and an ex-soldier’s account of a UFO descending on a military base and shining a harmful beam of light on a guard who drew too near. An aged man recalled the crash of a UFO, several tall aliens that survived the accident, and a second spaceship that came to their rescue. A couple came upon several mutilated cattle by the side of a road, then experienced missing time after a lighted cylindrical UFO approached. Afterward, the husband found that the barrel of his pistol had melted. Several people reported classic abduction cases with small, insect-like aliens and physical examinations, also other people held captive aboard the craft. In several cases the narrators encountered reports of apparent hybrids or Men-in-Black-like beings. Some contactee-like stories include an account of traveling to other planets, warnings that the earth was damaged, and promises that the Star People would rescue Indians and carry them to a better planet when the time of cataclysm arrived. Even stranger accounts appear—of a man who shot an alien for attempting to steal his dog, of a boy who gave his favorite marble to an alien as a gift, and of a snowplow driver in an Alaskan blizzard who gave a ride to an odd-looking being that later left the truck for a UFO hovering over the road. Some aliens disappeared into a mountainside, others were shapeshifters, passed through walls, or prevented guns from working.



These narratives are clearly a cut above the average UFO account for high strangeness. They also reflect little of traditional belief. The idea of Star People and their visits recur as an undercurrent through these accounts, but the substance belongs thoroughly in the realm of current UFO ideas. This complete dominance of extraterrestrial craft and alien visitation emerges as even more striking given the fact that half or more of Clarke's informants were elderly, the very people most likely to recall old ideas and interpret their experiences in traditional terms. One solution might be that these informants have absorbed the UFO ideas circulating in mass culture so

that the new ideas have completely replaced the old. While superficially appealing, this explanation runs up against the hard facts of Indian life. Many of the older informants lived on remote parts of reservations without electricity and without a TV, radio, or computer. These people rarely went to town or any place that they might be exposed to mass communications. Few of these older informants had access to much reading material, and in some cases they were either illiterate or relied on a grandchild to read to them. Word of mouth might compensate for these lacks, but any reader familiar with the subject cannot help but be struck by the richness of UFO motifs that fill these stories. If they were tale-tellers repeating a story they heard or constructing a yarn from parts, these narrators deserve a prize for their depth of knowledge acquired under conditions of hardship, and their skill in creating stories that fit in so deftly with other UFO accounts without merely mimicking them.

A second solution is that the expertise resides in an author who is familiar with the UFO literature and puts these stories into the mouths of the informants. No justification for this harsh verdict arises anywhere in the text. Clarke's career demonstrates a lifelong commitment to betterment of native peoples and her extended project of collecting these accounts suggests genuine interest, scholarly integrity, and a desire to provide a chance for

people to talk about experiences they have had to hide for fear of ridicule or losing their jobs. Moreover, she records some motifs without seeming to notice that they have a place within the more recondite corners of the UFO literature. She does not satisfy the reader's curiosity about the relationship between Star People traditions and modern UFO accounts, but she states that the current book is the first in a trilogy, so we can look forward perhaps to analytic treatment in the future. For now readers can acquaint themselves with a fascinating and unsuspected trove of experiential narratives, instances where ordinary people witness extraordinary things and a reminder that encounters with the unknown know no cultural boundaries. Thanks to the author for this labor of love, and to Anomalist Books for another worthy publication.

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BOOK REVIEW

The Fourth Phase of Water: Beyond Solid, Liquid, and Vapor by Gerald H. Pollack. Ebner & Sons, 2013. xxv + 357 pp. \$34.95 (hardcover), \$29.95 (paperback). ISBN 978-0962689536.

This book describes an accomplished scientific revolution which, however, and as usual (Barber 1961), awaits recognition by the mainstream. Water, it turns out, does some extraordinary but well-attested things that have never been explained and which have been largely ignored for many decades. Gerald Pollack studied these anomalous phenomena in detail and presents explanations that stem from radical new insights. Thomas Kuhn's description of scientific revolutions (Kuhn 1970) applies perfectly here: Anomalies are ignored by the mainstream. Their resolution requires a fundamental change of mindset. The mainstream does not engage because it thinks so differently (the new and the old theories are "incommensurable"). Time has to pass before the mainstream incorporates the new understanding.

The conventional wisdom acknowledges that water has some unique properties: very high surface tension, very large latent heat, and that the solid phase is less dense than the liquid. All these are explicable as consequences of uniquely strong hydrogen bonding between water molecules. I learned that many decades ago as I studied chemistry to the doctorate level. Then I carried on research on electrochemical phenomena in aqueous solutions for several decades, and had no occasion to doubt the conventional view—until I came across this book.

I had *not* known about some things water can do that are well-attested and long-known—but known only to those who are familiar with specialist literature, some of which dates to more than a century ago. For example, there is Kelvin's water-dropper: Water drips from a container through two separate outlets into two metal beakers, each of which is attached to a rod ending in a metal sphere. The two spheres are placed near each other. After a while, a spark bridges the gap between the spheres, even though no electrical voltage or current has been applied! (Free Science Lectures). And, of course, everyone knows that pure water doesn't even conduct electricity. Still, take two beakers of water whose lips are touching, apply a voltage across them through immersed electrodes, and a bridge of water will form between the lips—and the beakers can then be slowly moved apart while the bridge remains, without even drooping, as the separation between beakers

becomes as great as several centimeters. Explained by hydrogen bonding?

Start reading this book not at its beginning but at Chapter 1, where these and other astonishing phenomena are described, and you'll be hooked.

Little if any technical background knowledge is needed to follow the descriptions and explanations in this volume, but you may need to read it quite slowly, as I had to, because the basic insights on which explanations build are so unfamiliar:

In the presence of any hydrophilic surface, water spontaneously undergoes a separation of charges, thereby storing energy that can be drawn off. Incident electromagnetic radiation provides the energy needed for the initial charge separation.

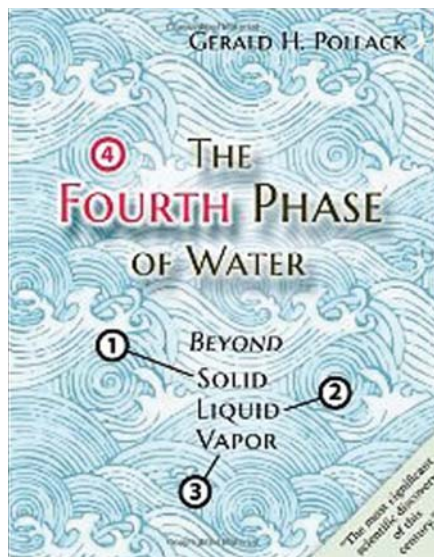
These assertions seem so bizarre that I would have rejected them out of hand if the book had declared them at the outset. Instead, the text begins with evidence. Following descriptions of well-attested anomalies such as the water bridge and the Kelvin dropper comes an account of yet another extraordinary phenomenon. Inside a tunnel through a gel, place water filled uniformly with microspheres: After a while, the microspheres move to the center of the tunnel, leaving the space near the gel completely free of microspheres—they have been *excluded* from that space, which was therefore christened the “exclusion zone” (EZ) by early investigators.

The water inside EZs is unlike bulk water: For example, it is more dense, more viscous, it absorbs electromagnetic radiation at about 270 nm—and it bears a negative charge. It is less acidic than the solution outside the EZ.

That EZ water is unlike bulk water brings recollections of “polywater”: the claim, originally by Russian scientists but subsequently confirmed by others, that water in narrow tubes differs from bulk water, for example in being more dense and more viscous. Polywater was eventually dismissed as a mistake stemming from the presence of impurities leached from the glass walls of the capillary tubes, but Pollack cites personal sources to the effect that the distinguished Russian chemist, Boris Derjaguin, did not believe that contamination was the whole explanation, even as he agreed publicly with that explanation for political reasons (p. 47).

Pollack infers that EZ water is composed of a stack of planar networks of water molecules interconnected in hexagonal arrays. Forming the necessary bonds ejects protons, which generate the hydronium ions that make the bulk water more acidic and leave the EZ less acidic as well as negatively charged.

The book's argument becomes even more radical in Chapter 8, which explains how “like attracts like,” the very opposite of what everyone knows. Actually there is no contradiction: Spheres with negatively charged EZs surrounding them, suspended in water, ***attract one another***. Even though



their like charges do *repel* one another, the geometry of the spheres together with the *positive charge* in the liquid between the spheres brings the spheres closer together. This illustrates why the book cries out to be read *slowly*: Several phenomena are explained on the basis of unfamiliar axioms of the sort that “like attracts like” under particular circumstances.

My mind was further stretched as Pollack points out that the terms “heat,” “temperature,” and “energy” are ill-defined, ambiguous, and even mutually incompatible as encountered in common usage, including in the

technical literature. Thus it requires energy input to bring order to water molecules as entropy decreases in the formation of EZs; yet EZs radiate less infrared energy than the bulk water, which would normally be interpreted as being at a lower temperature: What then happened to the input energy?

Pollack discusses a wide range of phenomena in convincing fashion: Brownian motion, diffusion, osmosis, water as a lubricant; why car batteries regain a bit of charge after standing for a while; properties of clouds; radio transmission around the globe with only slightly attenuated signal strength; why “steam” comes off hot coffee in puffs; how bubbles form in liquids, and the exact and detailed mechanics of boiling; Kelvin’s water dropper, of course; the exact nature of water’s “surface tension,” explaining some astonishing structure found even in open ocean waters and to amazing depths. How water is able to rise hundreds of meters inside tall trees. Why warm water can be made to freeze faster than cold water, and much else about freezing that draws on the discussions of heat, temperature, and energy, as well as EZs. Why water has its greatest density not just above its freezing point but instead at 4°C. How rainbows form: After all, splitting light into its component colors requires either a prism or an *evenly spaced* grid, neither of which is available under the mainstream view of tiny droplets *randomly* sized and spaced.

Chapter 18 reviews the chief tenets of Pollack's insights:

1. EZs constitute a genuine fourth phase of water, not solid or liquid or gas, and perhaps best described as a "liquid crystalline" phase.
2. Water stores energy in the form of charge separation and ordered structure.
3. Water gains energy from light, electromagnetic radiation, and not only at those wavelengths where infrared radiation is strongly absorbed.
4. Likes attract likes via intermediate unlikes.

No further explanation is needed than those assertions, as to why Pollack's insights have yet to become part of mainstream discourse. But several contributing factors are pointed to in the book:

1. The polywater episode left the conviction that any claims of unusual water structure and properties must be owing to impurities. The aftertaste of that 1960s episode was further strengthened circa 1988 and in subsequent years by claims of "water memory," that homeopathy works because water can somehow "remember," "retain" the structure of substances earlier dissolved in it (Davenas 1988, Aïssa 1997, Schiff 1995, Sheaffer 1988).
2. Water is so common, surely everything about it must have been understood long ago.
3. Scientists always resist startling novelty.
4. It is dangerous for scientists' careers to follow unconventional paths.

I've corresponded intermittently with Gerald Pollack over some years, not about this work or this book but because of his interest in finding ways to fund non-mainstream research. This volume illustrates why such funding could pay enormous dividends.

This is a one-in-a-million book for learning entirely new things. It exemplifies the approach that the Society for Scientific Exploration stands for and wants to see manifested in the *Journal of Scientific Exploration*. It is a rare exemplar of truly empirical, evidence-based science. It is a book to savor, to read and re-read, to urge on your best friends.

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References

- Aïssa, J., Jurgens, P., Hsueh, W., & Benveniste, J. (1997). Trans-Atlantic transfer of digitized antigen signal by telephone link. Congress of American Association of Immunologists, San Francisco, February.
- Barber, B. (1961). Resistance by scientists to scientific discovery. *Science*, 134, 596–602.
- Davenas, E., Beauvais, F., Amara, J., Oberbaum, M., Robinzon, B., Miadonna, A., Tedeschi, A., Pomeranz, B., Fortner, P., Belon, P., & Benveniste, J. (1988). Human basophil degranulation triggered by very dilute antiserum against IgE. *Nature*, 333, 816–818.
- Free Science Lectures. Walter Lewin Makes a Battery out of Water and Cans.
http://www.youtube.com/watch?v=oY1eyLEo8_A&feature=related
- Franks, F. (1981). *Polywater*. Cambridge, MA: MIT Press.
- Kuhn, T. S. (1970). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Schiff, M. (1995). *The Memory of Water: Homeopathy and the Battle of Ideas in the New Science*. London: Thorsons (HarperCollins).
- Sheaffer, R. (1998). Psychic Vibrations—e-mailed antigens. *Skeptical Inquirer*, 22(#1, January/February), 19.

BOOK REVIEW

Return To Life: Extraordinary Cases of Children Who Remember Past Lives by Jim B. Tucker. New York, St. Martin's Press, 2013. 256 pp. ISBN 978-1250005847.

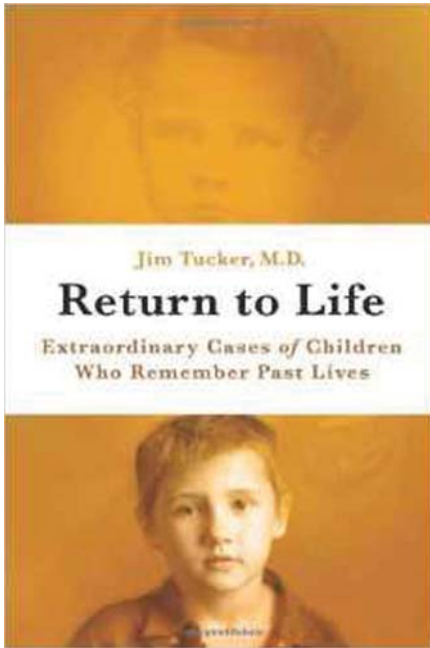
Jim B. Tucker is a child psychiatrist and successor of Ian Stevenson. He describes how he came to work with Stevenson, first as a volunteer, then as associate researcher on a regular basis as a part of his work in child psychiatry. Tucker is now the Bonner-Lowry Associate Professor of Psychiatry at the University of Virginia and devotes a large part of his time to continue the work of Dr. Stevenson who pioneered in the study of 'Cases of the Reincarnation Type' (CORT). *Return To Life* is about Tucker's research and studies of children who claim to remember a past life.

In recent years Tucker has primarily investigated cases in the United States and been successful in finding several of them. His first book, *Life Before Life*, and his participation in TV programs made these cases more visible to the general public. That brought in interesting and impressive cases that form the core of *Return To Life*.

Thanks to Tucker's effort we now have cases that are comparable in quality to some of the best Asian cases. They show the same general features; the child starts to speak about the previous life at an early age, does so repeatedly over some period of time, the contents of the alleged memories often find expression in play and the children show keen interest in past life activity or profession, and many of the cases involve memories of violent death. Most importantly, many of the children make statements that on scrutiny prove verifiable. As in Asia, Tucker shows that a fair number of the American cases remain unsolved however much effort is put into trying to verify them.

Having studied more than ninety cases in Sri Lanka and Lebanon, I am reminded of them reading Tucker's book, and also of some minor points that often go little noticed, such as "I used to be big, now I am little." Or, after tracing the previous family that the child has spoken much about and been keen to find, the child tends to lose interest in that family and expresses the view that he or she wants to stay with the present family, sometimes to the relief of their mothers. Then we have the emotional and psychological component, some with nightmares in the cases of violent death.

Ian Stevenson showed in numerous studies that it is comparatively easy



to find children in Asia who speak about past life memories, and that a fair number of these memories can be verified through investigation. Then the question was repeatedly asked, why do we not find such children in the USA and Europe? Do the Asian cases only appear because of the widespread belief in reincarnation?

Jim Tucker has, with consistent and patient effort, shown that cases of the reincarnation type can indeed be found in the US, impressive cases that have the same basic characteristics as the Asian cases. The cases of James Leininger in Louisiana (the World War II pilot case) and Ryan in Oklahoma (the Hollywood case)—to mention just two—are

comparable to high-grade Asian cases. It is meticulously described how the child's statements were verified one after the other as the investigation progressed. These cases are rare but they can be found. As in Asia they vary in quality and detail from highly impressive verifiable cases to meager unverifiable ones.

With *Return To Life* Jim Tucker has dispelled the idea that reincarnation cases cannot be found in Western, Christian countries. Thereby he has made a lasting contribution and completed the work that Ian Stevenson started with his last book *European Cases of the Reincarnation Type*. Tucker has an easy and gentle style of writing. For me it was a pleasure to read this book.

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BOOK REVIEW

UFOs and Government: A Historical Inquiry by Michael Swords and Robert Powell. San Antonio, TX: Anomalist Books, 2012. 580 pp. ISBN 978-1933665580.

UFOs and Government: A Historical Inquiry is a result of a major undertaking by a group of veteran UFO researchers who called themselves The UFO History Group. They dedicated themselves to developing new information about the U.S. Government-analyzed UFO reports, and they present a UFO history with new documentation obtained from the Air Force Files along with interviews with many of the participants. Although the book concentrates on the United States, it also contains histories of UFO research in Australia, France, Belgium, Spain, and Sweden, along with short pieces on Belgium, the Soviet Union, and Brazil. Michael Swords, an emeritus professor of natural science at Western Michigan University, headed up the team. The UFO researchers were Robert Powell, who helped with the writing and edited the book, and Barry Greenwood, Richard Thieme, and Jan Aldrich who served as consultants and contributing writers. The international chapters were written by William Chalker, Vincente-Juan Ballester Olmos, Clas Svahn, and Powell. Robert Purcell supplied the book with copious photographs, charts, and images of documents. Most of the book is written in a conversational style, making it accessible to both beginners and serious UFO researchers.

The history team's main focus is on how the United States addressed and dealt with the UFO phenomenon from the 1940s until 2007. The book is meticulous in providing fact-based analyses of the military and governmental investigators and scientists in the United States who developed the academic and governmental perspective on the subject that would influence generations. The reader will not find grand conspiracy theories and darkly hidden secrets that have fascinated UFO researchers for decades. Rather, this is a heavily documented history revealing exactly what happened and, whenever possible, why.

The world has been living with the UFO phenomenon since the appearance of the balls of light and metallic objects that pilots called foofighters in World War II and the oddly flying Swedish "ghost rockets" in 1946. When the media began to report the modern wave of UFO sightings in June 1947, it attracted the attention of the armed services. The U.S.

government, thinking that the objects might be secret weapons from somewhere, organized several projects to investigate the UFO phenomenon: The first was Project Sign, which began in 1948 and ended in 1949; and the second was Project Grudge, which began in 1949 and was renamed Project Blue Book in 1951; Blue Book was terminated in 1969.

In the beginning, members of the Project Sign team were sincere in their attempt to identify the odd objects that private citizens, military personnel, and radar installation workers were seeing in the atmosphere. Because Project Sign was a military operation, the main objective was to determine whether the objects were a threat to the national security of the U.S. regardless of their origin. When it was determined they were not a threat but yet remained unidentifiable, the Project Sign team was split on how to explain them. Some Sign members thought the objects were misidentifications, weather phenomena, and other forms of normal human misperceptions or natural phenomena. Others held open the idea that the objects appeared to be artificially constructed and under intelligent control because of their non-wing shapes, movements, and speed characteristics. With the Soviet Union ruled out as the origin of the objects (after being in contention as secret weapons in these early years), and if they were not psychologically based, some Project Sign team members thought they might be “real” and profoundly strange. As such, Project Sign was divided into two groups: one that bent the evidence to conform to their own conventional predilections (the objects as misidentifications and weather phenomena); and the other that confronted the evidence squarely and understood the objects to be unusual and requiring more scientific study. A few Sign members even thought that the extraterrestrial hypotheses—that the objects came from outside Earth—was viable.

With the advent of Project Grudge in 1949, the debate within Project Sign was settled. The group that emerged as the winner consisted of those who apparently did not particularly care what the evidence was; this was the group that considered the objects to be basically identifiable—if not now then eventually. The implication of this thinking was that the objects were simply a human mistake or mental construct that would fade away. Yet the UFOs stubbornly refused to disappear, and more high-level military observers along with pilots and scientists reported seeing these objects, adding to the mounting evidence for the phenomenon’s anomalousness. Regardless, instead of sending the study of the phenomenon to the scientific community, the Air Force held onto it and dug in its collective heels.

In 1951 Project Grudge became Project Blue Book, headed by Air Force Captain Edward Ruppelt with a staff of ten people. Blue Book dealt with an extraordinarily large wave of sightings in 1952, and Ruppelt seemed to

be level-headed in leading the staff's investigation of the sightings. Several scientists offered their services, such as Harvard astronomer Donald Menzel and UCLA physicist Joseph Kaplan. Their stance was that they knew the solution to the problem—UFOs were caused by planes, birds, mirages, misidentification of other natural phenomena, hoaxers, psychologically disturbed people, and so forth. These explanations applied to many sightings but not to all. Since the advent of UFO reports, a group of cases stubbornly resisted identification. In 1953 the CIA became a player in the UFO game and convened a panel to look into the UFO matter and decide once and for all whether the objects could be a threat to national security.

Known as the Robertson Panel for its chair, mathematical physicist Howard P. Robertson, this CIA-sponsored group found that all the sighting reports could be accounted for as long as a possibility existed that they might be something other than extraterrestrial. Consistent with CIA thinking, it also found that the **reports**—not the UFOs—could be a threat to national security because they often clogged the normal channels of military communication, potentially causing a dangerous situation in the event of a Soviet air attack on the U.S. To address this situation, the Robertson Panel recommended that the Air Force and the U.S. government conduct a campaign to convince the public that there was nothing to UFOs. The panel recommended the use of celebrities, television, cartoons, movies, and other similar methods for this public relations effort. If successful, presumably this campaign would dramatically decrease the number of reports. *UFOs and Government: A Historical Inquiry* demonstrates that from 1953 to 1969, implementing the Robertson Panel's recommendations became a driving force behind the Air Force's response to UFO sightings. The public relations campaign effectively prevented any serious UFO investigations. Project Blue Book was left to wither away to just a few staff members and then finally to be disbanded.

When reading the material one is immediately impressed by the wealth of documentation in *UFOs and Government*. From the foo-fighters on, each chapter presents new revelations about the infighting between the members of the government-sponsored projects as they tried not only to wrestle with the contents of the reports but also to fulfill the requirements of assessing possible threats to the national security. In these endeavors, most Air Force personnel come across as either incompetent or simply dishonest. This portrayal is based not on the authors' imaginations but on the rich documentation describing their attitudes and quality of mind. The heroes are a small number of serious scientists and military men who were puzzled by UFOs and wanted science brought to bear on the reports. But the government was ill-equipped to understand what was happening and/or

incapable of dealing with the evidence in any scientific way. As a result, the potential importance of the UFO phenomenon went unrecognized.

One of the book's strongest attributes is the detail with which the history group presents virtually everything of note during the thirty-one years that the government contended with the obstinate phenomenon. As I read the new documentation, I vacillated between being appalled, enraged, and depressed at the lack of mental acuity displayed by many of the staff members within Sign, Grudge, Blue Book, and the CIA.

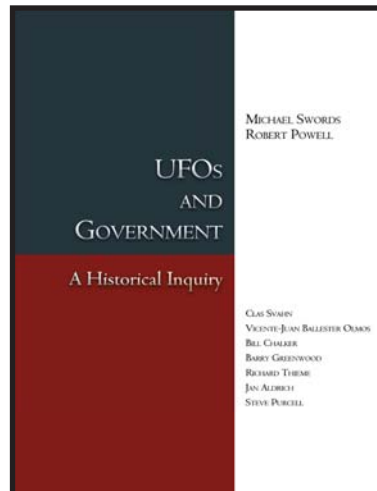
Simply put, the U.S. Air Force and government personnel reasoned that the objects could not possibly be of extraterrestrial origin and therefore were not. A scientific study of the phenomenon was not part of their thinking. In fact, the idea that UFOs were unworthy of scientific investigation became endemic in official offices. This way of thinking allowed Air Force investigators to cavalierly assume that the people who reported these objects were wrong, that the radar sightings were misinterpreted, that groups of people watching a formation of bizarrely maneuvering UFOs were all mistaken, and so forth.

In the 1960s, a few bold scientists and Air Force personnel—notably University of Arizona atmospheric physicist James McDonald and Northwestern University astronomer J. Allen Hynek, who had been the Air Force's scientific consultant on UFOs since 1948—tried unsuccessfully to modify the Air Force's stance and add some corrective science to its pronouncements. But McDonald met a courteous stone wall and Hynek was virtually ostracized within Project Blue Book. A sighting report determined to be “unknown” became a dead-end explanation, which the Air Force, and consequently the U.S. government, used to support their conclusion that the case was unworthy of attention rather than being the starting point of research. Thus, the outside scientific community, having misguided faith in the Air Force's pronouncements, had little reason to study the subject.

Swords and Powell reveal that the U.S. government's intransigence in the face of disconfirming evidence was the rule and not the exception. The infighting, the presumptions, the bad decisions, and the shallowness of many of the operatives within the projects made serious research impossible. Against this backdrop, Swords and Powell add myriad excellent and sometimes breathtaking contemporary case histories from Air Force files to demonstrate there was something to study just when its minions were saying there was no “there” there.

Projects Sign, Grudge, and Blue Book all came to the conclusion that UFOs were not a threat to the national security (a speculative assertion) and none seriously studied the UFO phenomenon. Ultimately, they all wound up serving public relations rather than science.

By 1966, the Air Force, under intense public criticism for not doing enough about the UFO phenomenon and reported sightings, determined that UFOs were more of a public relations headache than they were worth. Searching for support to minimize interest in UFOs, the Air Force authorized an “independent” study of the subject at the University of Colorado under the leadership of physicist Edward U. Condon. At its start the Air Force strongly urged Condon to come to a conclusion with which it would agree.



The book sheds light on the extreme rancor and infighting in the Condon Committee, which ultimately tore it to shreds. Condon comes off as a bully who would have his way no matter the facts. In the end he got his way after most of the original committee members were fired or resigned. The December 1968 Condon Committee’s recommendations (written by Condon without input from other members of the committee) concluded that there was nothing to UFOs whatsoever. The implication was that the Air Force should close down Project Blue Book. In an eerie throwback to early Air Force pronouncements, Condon’s recommendations did not reflect the project’s actual findings, and at the time researchers wondered whether he had actually read the report. Project Blue Book closed in 1969. Since then the Air Force has refused to investigate civilian UFO sightings.

Swords and Powell bring us up to date with discussions of how the local government handled the 2008 Stephenville, Texas, sightings, the federal government’s response to the Roswell mystery, and the March 1, 1997, Phoenix, Arizona, sightings, among others. In the Phoenix case, Governor Fife Symington publicly made fun of the sightings. In 2007 he admitted that on that evening he witnessed a huge triangular object making no noise flying at a low level. He was unable to identify it.

Although the United States failed to make sense of and scientifically address UFO sightings, a few other countries took a different route. Sweden occupies a unique place in UFO history with its “ghost rockets”; these objects were seen in the mid-1940s before the massive 1947 UFO wave. *UFOs and Government* develops new information about these early puzzling sighting events. Australia and Spain basically followed the American style

of searching for convenient answers no matter how much they diverged from the facts, but France and Belgium had very different histories. France took the most scientific path, setting up organizations run by scientists and then reporting their findings to the government and later to the public. In response to a massive wave of sightings in 1989–1990, Belgium also set up a UFO group that investigated these extraordinary sightings by military and governmental personnel. Brazil, Spain, and the Soviet Union had official UFO investigations and the short chapter sections about them give us a glimpse into their programs.

In 1968 James McDonald reflected about the U.S. government's confrontation with the UFO phenomenon. He wondered whether the government was involved with a cover-up or a foul-up. *UFOs and Government* greatly clarifies what happened—there was a continuing cover-up of the raw information and this cover-up resulted in a monumental foul-up of the investigation.

UFOs and Government: A Historical Inquiry is an important book for all who are interested in the U.S. government's interface with the UFO phenomenon. It is filled with revelations, insights, documents, and new facts that provide a great depth of knowledge about the critical early days of governmental UFO policy that set the tone for the entire history of official investigations into the phenomenon. The book is an essential tool for all interested in UFOs and UFO history.

DAVID M. JACOBS

BOOK REVIEW

Supernormal: Science, Yoga, and the Evidence for Extraordinary Psychic Abilities by Dean Radin. New York: Deepak Chopra Books, 2013. 400 pp. ISBN 978-0307986900.

“It’s only a matter of will . . . you just have to train, gentlemen.” Thus the commentary of a fakir to the inquiring looks of baffled and curious medical doctors who visited him backstage after his spectacular performances. Such performances included an act where he hung himself with his unprotected chin on a swinging trapeze using a razor-sharp sword as a bar. Other acts consisted of various perforations of his body. His helpers, for example, beat two meat hooks through his shoulders and heaved him up with the help of a block and tackle. The fakir said that he is able to make his body partly or absolutely pain-free and numb by extreme concentration and autosuggestion. The newly afflicted wounds, added daily, did not bleed. He said: “If they bleed it is a warning signal. Then the suggestion isn’t strong enough.” All the wounds were healed the following morning and one could only see tiny little white points.

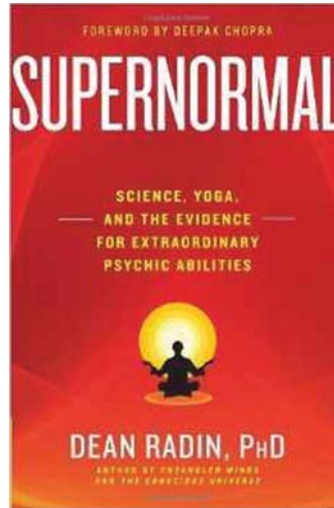
It seems obvious what this ‘story’ has to do with the topic of the book under review. We learn from a person with extraordinary abilities performing actions that are commonly known in connection with East Asian religious rituals, Indian *sādhus*, and yogic techniques. The latter build the content framework of *Supernormal: Science, Yoga, and the Evidence for Extraordinary Psychic Abilities* by Dean Radin. But why this little ‘story’ as kind of an introduction? It should serve to point toward some particular issues concerning the book and its topic. However, it is not a ‘story’ taken from Radin’s work but found in an issue of the German weekly newsmagazine *Der Spiegel* from 1949,¹ and it does not deal with an Indian *sādhu* but with German house-painter Anton Petersen who performed during the 1940s and 1950s under the stage name Carry Sunland. Although he developed interests in psychology, occultism, yoga, and spiritism in Berlin in the 1920s, he was certainly not in line with Indian *sādhus* and the yogic traditions, neither culturally nor with regard to his worldview or spiritually. The crucial point is: Could the extraordinary abilities of a German stage performer justifiably be compared with the *siddhis*, the spiritual, supernatural powers which can be acquired through certain spiritual practices? That remains an open question to me—as do some of the issues mentioned in Radin’s book.

It's a quite common belief that human paranormal abilities are less evident in modern Western societies, as a consequence of processes of civilization (technologization, alienation from nature, etc.). Because of this, the view on foreign cultures with a non-Western worldview is often attractive for Western parapsychological researchers (and not only for them), and winged by the hope that there is something new to be learned about the possibility of studying paranormal phenomena. The anecdotal reports of such phenomena occurring, for example, in shamanic societies, in South American countries such as Brazil, or in Hindu and Buddhist cultures, are fascinating and stimulating (cf. Bozzano 1941, David-Néel 1933, Playfair 1975, and many more). It was one of my expectations to obtain further information—both ample and scientifically sound—about paranormal phenomena in a non-Western culture. This was because the book's title and subtitle suggest this with its explicit reference to yoga, and to extraordinary abilities. This expectation unfortunately was not fulfilled. The book is largely about the results of Western parapsychological (experimental) research as well as the particular problems with regard to how the scientific community deals with the results of this research. First and foremost, the *Yoga Sūtras* written by the Indian sage Patañjali, and particularly the *siddhis*, build a contextual framework for the presentation of the above-mentioned main issues.

The book is divided into three main parts entitled *From Legendary Yoga Superpowers* (Part I, 7 chapters, 115 pages), *To Modern Science* (Part II, 7 chapters, 167 pages), and *And Beyond* (Part III, 2 chapters, 34 pages). This sounds conclusive, and suggests a coherent line of development from the past to the present age and into the future, which seems to be reflected in a clear outline of the volume. But this association is slightly misleading because the chapters of the first as well as the last part are much more heterogeneous with regard to their content than the chapters of the second part. Chapters 2, 6, and 7 directly refer to the yogic tradition, and its transmission and reception in the Western world during the 20th and 21st centuries. The latter is a core chapter for the author, insofar as he lists the twenty-five *siddhis*, describes them briefly, and tries to relate them to the well-known Western categories of psi (telepathy, clairvoyance, psychokinesis, precognition, retrocognition, and, as a less common category, exceptional mind-body control). The other chapters deal with shamanism, psychedelics, and extreme sports ("Other Realities"), with mysticism, marvelous stories, medical miracles, and skeptics ("Mysticism and Miracles"), and with current taboos and beliefs represented and promoted by mainstream science as well as by skeptics ("Unbelievable"). The two chapters of the third part are entitled "Pragmatics" and "Future Human." The first chapter includes

a description of a series of experiments on precognition with a technique called associative remote viewing. The pragmatic aspect lies in the chosen field of application: The Ironman triathlon competitor Gregor Kolodziejzyk tried to “Beat Wall Street” (p. 287) in these experiments (and he was successful!). There is an account of a crime being solved by a psychic detective in the year 2012. These two short reports should demonstrate that human psi capabilities are not only of interest with regard to ontological or spiritual issues but also could be used to cope with everyday problems. The last chapter of the third part takes up some points mentioned in the first part of the book: the faults and shortcomings of the dominant worldview of the West based on the assumptions of mainstream science, as well as a ‘new’ view which takes the provocative statements of quantum theory seriously. Radin systematizes his critique of the ‘mainstream approach to reality’ by listing “eight doctrinal assumptions that underlie the present scientific view of reality” (p. 298). He called them “the eightfold path of science.” With this, he refers directly to the “Noble Eightfold Path” of the teachings of the Buddha which contains eight elements of ‘right’ behaviour. In contrast, the “eightfold path of science” is not noble at all but contains eight incorrect doctrines, as Radin demonstrates, mainly by arguing with the results of quantum-theory-oriented research. He speculates on the ‘function’ consciousness may have as a kind of glue: “. . . could consciousness be a fundamental force in the universe that binds and shapes how the universe manifests?” (p. 312).

The main part of the book which impressed me as most scientifically sound and valid is dedicated to different areas of parapsychological research: precognition, telepathy, psychokinesis in living and in inanimate systems, and clairvoyance. Two further chapters deal with the question of how *siddhis* could be scientifically tested (“Science and the Siddhis”), and of the influence of meditation on the results of psi experiments (“Psi and Meditation”). With the former, Radin associates different psi research areas to yogic practices and presents cases of the investigation of “intermediate big siddhis (. . .): the ability to raise the body’s core temperature to allow one to comfortably remain in snow and ice without clothing, and to no longer eat food” (p. 123). There are a few people who demonstrated such abilities



and then underwent scientific investigation. Obviously, the overview on parapsychological research with its different areas, methodological problems, and experimental paradigms is not complete. The author doesn't want to bore the reader with the dry reading of a textbook with equally weighted and structured chapters. So, for example, the chapter on clairvoyance is very short. Radin refers to his earlier books *The Conscious Universe* (1997) and *Entangled Minds* (2006) which include a more comprehensive description of research in this area. In *Supernormal* he confines himself to two cases of "extreme clairvoyance" (title of the subchapter), and to a case of remote viewing. Areas that formed the focus of research of the author himself, together with his collaborators, are described in more detail. And there is a huge number of intriguing studies with interesting results. Radin belongs to a group of successful and efficient experimental parapsychologists, as most of readers of this journal already know. Despite the fact that he focuses somewhat on his own research, it is not a self-congratulatory report. For him, the content and issues of his work seem to be more important than any image cultivation. In addition to experimental results, the author explains methodological and statistical issues such as the method of meta-analyses, the meaning of the effect sizes, and the use of Bayesian techniques for analyzing experimental data. Part II of the book is primarily dedicated to answering the question of whether there is "scientific support for the ontological reality of the mystical realities underlying most religions" (p. xxi) and whether the yoga superpowers, the *siddhis*, are actually real, or only to be interpreted on a symbolic level.

Supernormal is a well-written, easily readable, and informative book which provides a good overview on the major objectives of experimental parapsychology. Sometimes the presentation of the results of the parapsychological research sounds smoother and more streamlined than is actually the case. But this does not alter the fact that it clearly shows how much the evidence for the existence of paranormal phenomena has grown. This can only be ignored by hard-nosed skeptics. Moreover, the book gives a lively display of the problems that are encountered by serious researchers in the field of parapsychology when they want to publish their significant results, as well as the resistance encountered in getting the evidence accepted, and the irrational reactions of most of the scientific community when confronted with such results. Therefore, I can fully recommend it. However, the question is: Who is the audience for this book?

Parapsychological researchers won't find very much new information. There is a considerable overlap with the two other mentioned books by Radin. Maybe the style of the book gives the answer. We find little pictures at the beginning of every chapter that remind me of fantasy comics. Deepak

Chopra contributed a Foreword to the book, in which he quotes Einstein: “Science without religion is lame, religion without science is blind” (p. xiv), pointing toward the relationship of modern science and older spiritual traditions which both provide visionary looks into the future of humanity. In the case of *Supernormal* this is a fairly optimistic perspective. It promises the possibility of the development of new psychical hidden human capacities as well as a change in society. Radin speculates at the end of the book:

What might happen when this ancient–modern integration becomes a reality? On the beneficial side we can anticipate improved health care through a vastly better understanding of the mind–body relationship. We may see development of technologies that treat aspects of the mind–body system that are well understood in the wisdom traditions but are ignored by Western medicine (for the most part). . . . We may see a substantial reduction in interpersonal conflict through a broader recognition of the interconnectedness of all life. As the boundaries between subjective and objective realities are better understood, the communications and energy industries may be radically altered. On the other hand, we are likely to find that some aspects of the wisdom traditions are seriously distorted and in some cases are dangerously wrong. We may find growing societal resistance at the prospect of being “absorbed” into an increasingly powerful collective mind. And we may pass through a time when horrifically powerful weapons are created that reshape space–time and possibly even alter history. . . . From what I’ve seen in recent years, this transition has already begun. When it reaches fruition, humanity may finally find itself at childhood’s end. (p. 319)

With this vision of the future, it can be put in line with ‘classic’ New Age books such as, for example, Fritjof Capra’s popular scientifically written *The Tao of Physics* (1975), reaching a similarly interested readership.

However, if the reader wants to learn something profound about the particular relationship between psi and yoga, or better yet psi in yogic techniques, he won’t find a lot of solid information. The two main questions of the book are:

- a) Are the *siddhis* actually real? Answer: partly. This can be proved by the results of Western parapsychological research. Those ones that cannot be proved by scientific experiments are pure fantasy.
- b) How can it be that some of the *siddhis* are real? Answer: They are not miracles but are understandable with a new worldview informed by quantum theories, the relativity of time and space, and the meaning of consciousness.

A big question that remains unanswered is the one I quoted at the beginning of this review, and I want to come back to the introductory example of the German fakir: Could his capabilities be understood in line with that of

Indian *sādhus*? Further questions pop up: What role does the spiritual context play with regard to a correct understanding of what really happens? Could psi phenomena, detected in the laboratory of parapsychologists, justifiably be identified with the *siddhis* of the *Yoga Sūtras*? Is it correct to adopt the explanations found for such psi phenomena to explain the *siddhis*? Are such *siddhis*, which are judged by Radin to be pure fantasy, based on the fact that they don't fit into the scheme and concepts of Western parapsychological research? And what about the widespread assumption that psi capabilities cannot be trained (based on quantum theoretical considerations), which is contradictory to the *Yoga Sūtras* that “tell us that the development of the *siddhis* is intimately related to yoga practice, and in particular to the meditation component of yoga” (p. 274). Is a quantum theory model—the only theoretical model the author mentions in his book—the one and only one to explain the *siddhis* as well as psi phenomena in Western laboratories? It is only possible to speculate on answers to these questions, of course. But in this matter Radin largely leaves the readership alone regarding further reflections and arguments—unfortunately (in my view).

Note

¹ <http://wissen.spiegel.de/wissen/image/show.html?did=44435235&ref=image036/2005/12/13/sp19490327-T2P-027.pdf&thumb=false>
[Translation in the text of this review by the author]

GERHARD MAYER

References

- Bozzano, E. (1941). *Popoli primitivi e manifestazioni supernormali*. Verona: L'Albero.
- Capra, F. (1975). *The Tao of Physics: An Exploration of the Parallels between Modern Physics and Eastern Mysticism*. Berkeley, CA: Shambala.
- David-Néel, A., & d'Arsonval, A. (1933). *Magic and Mystery in Tibet*. New York: Kendall.
- Playfair, G. L. (1975). *The Flying Cow. Research into Paranormal Phenomena in the World's Most Psychic Country*. London: Souvenir Press.
- Radin, D. I. (1997). *The Conscious Universe: The Scientific Truth of Psychic Phenomena*. New York: HarperEdge.
- Radin, D. I. (2006). *Entangled Minds. Extrasensory Experiences in a Quantum Reality*. New York: Paraview Pocket Books.

BOOK REVIEW

Deadly Medicines and Organised Crime: How Big Pharma Has Corrupted Healthcare by Peter C. Gøtzsche. Oxford/New York: Radcliffe Medical Press, 2013. 310 pp. \$45 (paperback). ISBN 978-1846198847.

Prescription drugs are the third leading cause of death in Europe and the USA, exceeded only by heart disease and cancer.

Readers encounter the above-quoted assertion on page 1 of this book, following Forewords vouching for the trustworthiness of the book and its author; those Forewords are by former editors of the *British Medical Journal* and *JAMA* (previously *Journal of the American Medical Association*).

The pharmaceutical industry, “Big Pharma,” is directly and also indirectly responsible for this unacceptable death rate. The industry’s behavior, fully documented here, is shown to mirror that of organized crime in pursuing its own profits without regard for anything else, including the illness and death of its customers. Another apt comparison is with the tobacco industry.

Peter Gøtzsche is Director of the Nordic Cochrane Centre, an arm of the Cochrane Collaboration, “an international network of individuals and institutions committed to preparing, maintaining, and disseminating systematic reviews of the effects of health care” (Nordic Cochrane Center). He knows whereof he speaks, and he doesn’t hesitate to speak plainly and incisively—for which he is actively detested and harassed by Big Pharma and by non-boatrocking fellow members of the medical profession and associated institutions.

This is a very angry book. Everyone should read it, and every reader ought to become as angry as the author. Copious documentation illustrates that drug companies *routinely* suppress unfavorable data and knowingly suppress market drugs that are ineffective and toxic. Regulators in both Europe and the USA abet those crimes instead of acting to safeguard public health. Justice Departments in both regions allow drug companies to settle criminal suits without acknowledging guilt, without any individuals being held responsible, paying fines that are trivial compared with their profits from the drugs that they market illegally—so that they continue with the same illegal practices, the fines being just a small part of the cost of doing business. Other costs include the buying or bribing of politicians, academics, practicing physicians, medical journals, professional associations, and fake

patients' associations. All of those constitute interests that are vested in the present-day systemic criminality associated with prescription drugs.

Those assertions might easily be dismissed on sight as absurdly inconceivable, far too extreme to be true. Nevertheless, disbelief should be suppressed provisionally: Read the book. Read it very slowly, for two reasons: First, to check every source reference for accuracy; second, because the subject matter is far too depressing and sickening to be taken in all at once.

Almost every page has something worth quoting, but in the space of a review just the chapter headings will have to serve. Following the Introduction (Chapter 1) and "Confessions from an insider" (Chapter 2), there come (British spelling):

3. Organised crime, the business model of big pharma
4. Very few patients benefit from the drugs they take
5. Clinical trials, a broken social contract with patients
6. Conflicts of interest at medical journals
7. The corruptive influence of easy money
8. What do thousands of doctors on industry payroll do?
9. Hard sell
10. Impotent drug regulation
11. Public access to data at drug agencies
12. Neurontin, an epilepsy drug for everything
13. Merck, where the patients die first
14. Fraudulent celecoxib trial and other lies
15. Switching cheap drugs to expensive ones in the same patients
16. Blood glucose was fine but the patients died
17. Psychiatry, the drug industry's paradise
18. Pushing children into suicide with happy pills
19. Intimidation, threats, and violence to protect sales
20. Busting the industry myths
21. General system failure calls for a revolution
22. Having the last laugh at big Pharma

Chapters 20 and 21 constitute a sort of summary of the book, and readers could do worse than to start with them and seek further details, if they wish and can stomach them, in earlier chapters. Many of the points have been made elsewhere, in dozens of books and articles.¹ Nevertheless, not sufficiently known or appreciated by the public at large, apparently invisible to the mass media, and of direct interest to all is that clinical trials are biased and corrupt in a number of ways. Surrogate markers are

used to measure outcomes, for instance blood-sugar levels with “diabetes” drugs, which is not what we really want to know, but namely, do the drugs prolong healthy life? Most commonly the answer is either “No” or “We don’t know.” Trials enroll the most seriously ill people because that tests the would-be drug most readily, but then in practice the drug is administered to a huge range of people who may be only slightly ill or even not at all ill, as with blood-pressure drugs and blood-sugar drugs and many others, very much including those prescribed for “mental illness.” Trials do not enroll seniors, yet seniors are the greatest consumers of drugs, often many drugs simultaneously whose interactions have never been tested, even as seniors are also most likely to succumb to the huge array of possible “side” effects. Most senior people who have no manifest troubling or disabling symptoms would do much better without *any* prescription drugs (pp. 131–132; see also Goodwin [1999]). Indeed, *most individuals of all ages who are routinely taking blood-sugar and blood-pressure and other “heart” drugs would be better off not taking them.*

That’s the present dilemma with the pharmaceutical industry. Many individuals have cried in the wilderness about this for something like a couple of decades or more (Goodwin 1999). Fifty years ago, much of what’s wrong with Big Pharma was supposed to have been fixed in the USA by the Kefauver-Harris Amendment or “Drug Efficacy Amendment,” a 1962 amendment to the Federal Food, Drug, and Cosmetic Act. It introduced a requirement for drug manufacturers to provide proof of the effectiveness and safety of their drugs before approval . . . , required drug advertising to disclose accurate information about side effects, and the stopping of cheap generic drugs being marketed as expensive drugs under new trade names as new “breakthrough” medications (Kefauver-Harris Amendment).

Gøtzsche’s book makes it plain that things are considerably worse now than they were before that Amendment was enacted.

Gøtzsche places well-deserved blame on a number of people and institutions. Still, the real lesson, I believe, is that the enemy is us. A free and democratic society can function well only if a large enough proportion of the population is sufficiently well informed and if a large enough proportion of civil servants administer the spirit—not the letter—of laws created by a sufficiently evidence-respecting, properly representative, well-intentioned legislature not corrupted by conflicts of interest. The present circumstances of Big Pharma shows how far short our society presently falls on *all* those desiderata.

At one point, Gøtzsche refers to the post-WWII Nuremberg trials for the lesson that people who commit evil actions cannot excuse themselves as just having followed orders. I find at least as pertinent Hannah Arendt’s

(1963) phrase, “the banality of evil.” Arendt’s deployment of that phrase continues to be argued over, so I need to specify my own interpretation of it: Evil exists not because there are monsters in human form, but because almost all human beings can come to act as monsters as the result of a succession of small, apparently trivial and harmless actions and decisions—doing what everyone is doing—that cumulate in monstrous events that they really didn’t aim for at the outset. That Hitler ever came to power demonstrates a failure of the earlier democratic institutions. Little by little, institutions that could in principle have averted the Nazi catastrophe did not do so, as more and more people found rationalizations for taking the easy path of going along instead of the principled one of doing the right thing. “The only thing necessary for the triumph of evil is for good men to do nothing.”²

Anyone who has served on a committee has had the opportunity to note that groups of people are capable of idiocies and injustices that perhaps none of the individual members might commit solo. Anyone who has crossed swords with any bureaucracy has had the opportunity to note that those who speak and act for it lack, in that role, all the empathy and sense of fairness that they might exhibit in their personal affairs. Then after a while it’s too late and individuals are either chewed up by the system or accommodate to it and participate in atrocities while wishing they didn’t have to. One of my closest friends spent WWII in concentration camps, and once confided that “Anyone could be a guard in a concentration camp.” Another acquaintance was born in a concentration camp and survived because one of the guards carried the young infant on foot for miles to a town where he could receive lifesaving medical attention. Children of Nazis had the wrenching experience of facing facts of history and trying to understand that their own kind, loving parents committed the atrocities in which they indubitably played a part (Bar-on 1991). Those parents themselves had no easy time confronting their own actions later, as illustrated by the distinguished senior German jurist, Ernst Janning (played by Burt Lancaster) speaking with the American judge Dan Haywood (played by Spencer Tracy) in the movie *Judgment at Nuremberg*:³

Ernst Janning:

Judge Haywood . . . the reason I asked you to come: Those people, those millions of people . . . I never knew it would come to that. You *must* believe it, you *must* believe it!

Judge Dan Haywood:

Herr Janning, it “came to that” the *first time* you sentenced a man to death you *knew* to be innocent.

This book, then, not only dissects the literally deadly criminality of present-day drug-based medicine, it forces a realization that we own this system because of our individual and collective failings with respect to not being informed and not voting conscientiously or wisely, thereby allowing tiny little wrong steps to accumulate. The Food and Drug Administration needs to be freed from political interference. Conflicts of interest need to be *eliminated entirely* from politics, from medical education, from medical and hospital practices, and from medical journals. Direct-to-consumer advertising of prescription drugs needs to be banned again, as it was until the 1990s and still is in every civilized, developed country other than New Zealand and the USA.



There is ample reason, then, why this is an angry book. I think Göttsche remained able to write it in part because he retains sanity by means of ironic gallows humor and turns of phrase that can also help the reader keep reading, as with the chapter heading, “Merck, where the patients die first” in response to Merck’s incessant advertising slogan, “Merck, where patients come first,” a slogan that in itself demonstrates that Big Pharma is all about selling and profits and not at all about honesty. Or, on the continual invention of new psychiatric illnesses, Göttsche points out that psychiatrists like other doctors, administrators, and politicians suffer from the incurable ODUFD, Obsessive Denial of Unwelcome Facts Disorder (p. 201). And the proper labeling of drugs should read:

This new drug hasn’t been shown to be any better than currently available drugs, and we know much less about its harms, including the lethal ones, than we do for the old drugs. There is no evidence that its higher price is accompanied by any therapeutic advantage. It’s generally safer to take an old drug, as many new drugs come off the market later because of safety problems.

This book is a formidably important work, and it is more than unfortunate that the publisher has not done it justice. Either there was no copyediting at all or it was atrociously incompetent.⁴ The text is often non-idiomatic and lacking proper syntax, to the degree that in a few places I

remain actually unable to understand what the author means.⁵ The index is not very useful, lacking cross-references to help readers connect brand names with generic and scientific names. All that must be overlooked, however, because everyone owes it to themselves, to their families, to their friends, to learn what is in this volume. The most determined grass-roots initiatives are imperative to put a stop to what's going on, namely, the corruption of politics and science by Big Pharma and the mass killing by prescription drugs.

Notes

- ¹ For a periodically updated bibliography, see "What's wrong with medicine." http://henryhbauer.homestead.com/What_sWrongWithMedicine.pdf
- ² Often but not always attributed to Edmund Burke.
- ³ *Judgment at Nuremberg* (1961), directed by Stanley Kramer, written by Abby Mann (Oscar award); many awards and nominations.
- ⁴ Knowing German, and presuming the same holds in Danish, I was able to infer that "gymnasium" on pp. 7 & 9 really meant "high school" or "grammar school" or "secondary school." "Senator" Waxman (p. 159) is actually a Congressman.
- ⁵ Try p. 87, paragraph 3; p. 93, third to last paragraph; p. 145, second to last paragraph; p. 147, paragraph 2. On p. 98, are we all supposed to know what a biologic agent is and how that differs from a drug?

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References

- Arendt, H. (1963). *Eichmann in Jerusalem: A Report on the Banality of Evil*. New York: Viking Adult.
- Bar-on, D. (1991). *Legacy of Silence: Encounters with Children of the Third Reich*. Cambridge, MA: Harvard University Press.
- Goodwin, J. S. (1999). Geriatrics and the limits of modern medicine. *New England Journal of Medicine*, 340, 1283–1285.
- Kefauver-Harris Amendment. http://en.wikipedia.org/wiki/Kefauver_Harris_Amendment
- Nordic Cochrane Society. <http://www.cochrane.dk>

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2014 SSE EUROPEAN CONFERENCE
Physical & Biological Correlates in Alternative Healing Modalities

**The 10th Annual European Conference of the
 Society for Scientific Exploration**
November 13–15, 2014, Leiden, The Netherlands

Program Chair: C. M. Chantarel Toporow, cmc.toporow@mac.com

Local Arrangements Coordinator: Erik Schultes, schultes@hedgehogresearch.info

Meeting Venue: Leiden University Medical Center. All sessions will be held here.

Parking: The SSE has arranged a special rate for overnight self-parking at the LUMC garage, Albinusdreef 2, 2333 ZA Leiden. The organization will have a parking ticket available at the registration desk on site. You can park your car first and then leave the parking garage by using that specific ticket. For information and route description, go to:

<http://www.lumc.nl/0000/12299/71127110446221/?setlanguage=English&setcountry=en>

Hotel: Hotel Ibis, Stationsplein 240, 2312 AR LEIDEN, email H8087-RE@accor.com Telephone: 071 – 516 00 00. A large block of rooms has been reserved for the SSE at a special conference rate of € 84.00 including breakfast. Excl. € 2.00 tourist tax p/p/night (€ 97.00 for a double room). Reservations must be made by 1 August 2014 to receive this rate. Please call directly to the hotel or send an email and mention this reference number—BOER121114—to reserve your rooms at the special rate. Hotel Ibis is a basic hotel within walking distance to both the Leiden University Medical Center where the conference will be held, and to the city center and all the museums. The Hotel has a nice lobby with a bar.

Transportation: There is a good direct train connection (20 minutes) between Schiphol Airport (Amsterdam) and Leiden Railway Station. For information about the arrival hall floor plan: www.schiphol.com

To & from Schiphol Airport and for the train schedule, go to www.ns.nl (English)

Registration: Please go to the following website to register:

https://www.boerhaavenascholing.nl/pages/Boerhaave/ShoppingCart?addactivity=30860&lang=en_uk

Students: The Society encourages the attendance of students and young investigators, and the conference is open to the public. There is a special, reduced registration fee for students at this event. Please encourage students from your area to come.

Welcome Reception: Wednesday, November 12th, starting at 6 p.m. at the hotel.

Field Trip: Leiden Boerhaave Science Museum, <http://www.museumboerhaave.nl/english/>

Dinner: The Dinner will be on November 14th at Koetshuis, in the Leiden city centre

<http://www.koetshuisdeburcht.nl/>

INVITED SPEAKERS:

Dr. Peter Taylor: Professor of Microbiology UCL School of Pharmacy & NIHR University College London Hospitals Biomedical Research Centre University College London

Pelargonium—Native South African Plants Providing a Rich Source of Metabolites with Anti-Tuberculosis Properties

Dr. Yolene Thomas: Director of Research, Pierre and Marie Curie Universite, Centre National de la Recherche Scientifique, & Associate Editor: *Water Journal*

Commentary on Cellular & Molecular Language: A Role for Water?

Dr. Eduard van Wijk: Faculty of Science, Leiden Academic Centre for Drug Research, Analytical BioSciences [title to be determined]

CALL FOR PAPERS — SUBMISSION DEADLINE: September 1st, 2014

The overall theme of the conference is “Physical and Biological Correlates in Alternative Healing Modalities.” Invited speakers will help define themes to be developed further by our own SSE membership, and the program will include papers assessing progress and social/political issues in areas of longstanding interest to SSE members. All conference sessions will be held in the Leiden University Medical Center (LUMC).

Theme 1: Life, Water, and Light

Theme 2: Physical and Biological Correlates to Alternative Healing Modalities

Theme 3: Our Universe: Exploring Concepts of Non-Localilty

Evening Panel: November 13th

CONTRIBUTED PAPERS

Contributed Papers Contributed papers by full members on any topic of interest to the Society are welcome. Papers related to the themes of the conference will be grouped with relevant invited talks when possible. A poster session may be provided for selected papers or on request.

Titles and abstracts for contributed papers should be sent to the Program Chair: Dr. C. M. Chantal Toporow (cmc.toporow@mac.com). Electronic submission is required. The Title should be short and informative. Include Author name, affiliation, and contact information. Abstracts should be 300–500 words (one page of single-spaced text), and should summarize the main points of the paper. Plain text as the body of the e-mail is preferred. If special formatting is required, submit a Word document. If selected for presentation, plan on a 15-minute talk with 5 minutes for questions. Submissions by Associate members must be sponsored by Full members.



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A Publication of the Society for Scientific Exploration

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