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Vol. 5 No. 1

Welcome to Paranthropology Vol. 5 No. 1, the first issue for 2014. To start the year off, Thomas E. Bullard asks a vital question: 'Is the Anomalist on a Fool's Errand?,' questioning some of his past convictions about the UFO phenomenon in light of recent revelations. Yet, in spite of the successful debunking of several classic UFO cases, Bullard remains convinced "that an irreducible residue of unknowns remains." This is followed by Jacob W. Glazier's examination of parapsychology's philosophy of science, in which he argues in favour of approaching psi from a phenomenological, social scientific, perspective. Mark A. Schroll then provides a commentary on Glazier's thesis. Next, Christel Mattheeuws completes her two part article on anthropological endeavours and synchronistic experiences. Charles Laughlin's paper explores the primordial roots of religion from a transpersonal and biogenetic structural perspective. In 'The Paranormal Body' Loriliai Biernacki explores Indian perspecives on the paranormal. Ohkado Masayuko and Okamoto Satoshi outline their fascinating investigations into an apparent case of xenoglossy and past-life memories occurring under hypnosis. Finally, in 'Navigating to the Inside' Rafael G. Locke takes up Jake Glazier's call for a phenomenological approach to the study of consciousness and psi through firstperson science.

Thomas Bullard, Loriliai Biernacki and Rafael Locke's papers were all presented at the recent conference on 'Anthropology and the Paranormal,' hosted by the Esalen

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Institute in Big Sur, California. Interivews with participants at the conference can be found here: http://anthreligconsc.weebly.com/esalen-interviews.html.

In other news, *Paranthropology* is currently on the look-out for guest-editors for forthcoming issues. If you are interested in finding out more about this opportunity, or have any ideas for specially themed issues, please get in touch with the editor via discarnates@googlemail.com.

We hope you enjoy this issue.

Vol. 5 No. 1

Is the Anomalist on a Fool's Errand?

Thomas E. Bullard.



 Υ his paper is about the elusiveness of evidence for anomalous events. I will speak of UFOs because this is the subject most familiar to me, but the underlying theme concerns problems of knowing the unknown and unaccepted, and the same arguments will apply more or less equally well to other anomalies. My recent preoccupation with evidence results from a crisis in my long-time study of UFOs. It is not a crisis of faith, because I am still convinced that an irreducible residue of unknowns remains after all the conventional cases are winnowed out of the mass of reports, and that these unknowns hold their status not because they are merely unidentified, but because they possess a robust strangeness that seems beyond conventional solution. The crisis is rather one of confidence, a sense that I have taken too much for granted, been too naïve in what I have accepted, neglected too many subtleties and pitfalls in a landscape I thought I knew. I suffer from disquiet and embarrassment-disquiet that I am more uncertain than I realized, and embarrassed that I-and my fellow ufologists-overlooked weaknesses we had a responsibility to notice.

The stimulus for my concern has been the recent success of skeptics in shooting down some highprofile UFO cases that once seemed unassailably strong. Within the past two years or so they have provided a conventional explanation for the 1997 Phoenix Lights, a case with thousands of witnesses, including the governor of Arizona, and highlighted in Leslie Kean's best-selling book, *UFOs: Generals, Pilots, and Government Officials Go on the Record.* They succeeded again with the 1996 Yukon "giant mothership" case, advertised in a popular TV show as one of the "ten best" UFO reports of all time. Most troubling of all was an article in the *Skeptical Inquirer* by James McGaha and Joe Nickell that offered a solution for the "Incident at Exeter," a 1965 classic that J. Allen

Hynek considered an exemplary close encounter of the first kind, and a case that most ufologists counted on to stand forever. I certainly thought so, since I included it in my 2010 book as high on my short list of favorite—and genuine—UFOs.¹

The ufological community has largely ignored this string of successes. After all, explaining cases is what skeptics do, or try to do. Many of their past attempts have provided more laughs than enlightenment, or at most gave cause for exasperation, but the skeptics get it right now and then. Reasonable ufologists accept that most UFO reports describe conventional events mistaken for something strange, and even a few classic cases are bound to fall apart from time to time thanks to new information or renewed examination. For many ufologists proof is no longer an issue, but an afterthought. They feel certain that the existence of UFOs was established years ago and an extensive body of high-quality unknowns provides ample proof; now the mission is to understand the meaning of UFOs, which usually means understanding what our alien visitors are doing here. The loss of a case or two, even a significant one, means nothing in this larger picture. We have plenty more good cases on file and new ones coming in all the time, so why pay any attention to the pitiful gnawing of the opposition?

My feelings are considerably more uneasy. Today's skeptical attacks on UFOs belong to a different breed than the woeful Air Force concoctions of the 1950s or the armchair pontifications of Harvard astronomer Donald Menzel. The modern skeptics bring rigorous and informed criticism to their arguments and highlight inconvenient facts that ufologists overlook or ignore. This new caliber of skepticism is nothing to laugh at; when it's on target, it kills. And their aim seems increasingly true. When ufologists trust to numbers they pin their faith on a version of the "bundle of sticks" fallacy, a false belief that many

References (Internet connections worked as of August-September 2013)

¹ Bullard, Thomas E. The Myth and Mystery of UFOs (Topeka: University Press of Kansas, 2010), 35-38.

weak cases combine to build better evidence than one strong case. The fact remains that the argument for a unique and significant UFO phenomenon depends on the existence of at least one genuine UFO. We do not have alien bodies or a piece of indisputably otherworldly technology. What we have are reports, some of them undeniably impressive but still the anecdotal evidence that scarcely counts as evidence at all among scientists. Supporting evidence may come from correlations and patterns among independent testimonies, or from photographs and radar, but the uncertainties of human eyewitness testimony, human memory, social and cultural influences, and fallibilities even in instrumental support eat away at the purported solidity of the best UFO evidence. These are the very sorts of faults that the skeptics uncover with increasing success.

The combatants square off with ufologists convinced that they hold proof of unconventional objects flying in the sky. These cases describe more than mere lights in the night. They have the support of multiple reliable witnesses and instrumental confirmation, the objects display unconventional strangeness and no conventional solution can explain them. These cases are worth standing up to defend as concrete examples of a real UFO phenomenon. On the other side the skeptics maintain that with the right information they can explain every UFO no matter how strange it appears on the surface, while the ufologists' practice of substituting new "unknowns" for failed cases simply ignores the ominous trend that if one case after another has fallen in the past, all others will topple in their turn. The verdict then has to be that not even one unconventional UFO really exists and all the claims of ufology, from objects in the sky to alien abductions, evaporate into a cultural "castle-of-clouds" belief just like the skeptics have always maintained.

Cast in these stark terms, the skeptics' success is far from trivial. The whole issue is really at stake. If the skeptics can make good on their claim that the mystery in even the best UFO cases is apparent rather than real, then the foundations of ufology crumble and the superstructures of other UFO beliefs fall with it. The loss of classic cases comes as an especial blow. They become classics for good reason—for being of exceptional quality and strangeness, and for having faced repeated challenges and survived them with anomalousness and mystery undiminished. These enduring cases represent the best face forward of the subject, cases to offer critics and

doubters, scientists and the interested public alike in response to the question of why accept that UFOs are real and a serious issue. When we lose such cases, we lose the ground we stand on.

At a minimum these successes by the skeptics call for reflection and self-examination. They call for understanding what went wrong in investigations that arrived at a desired conclusion and let the truth slip away. Deeper still, they oblige a return to basic questions about the quality and air-tightness of the UFO evidence, and ultimately to the question of whether the evidence we have is adequate to establish the existence of an unconventional phenomenon at all.

Another question of vital importance is how do ufologists (or anomalists of any stripe) address their various audiences? When we talk to our own, much of what we say is what we ourselves want to hear and we forget the habit of asking demanding questions. Too much preaching to the choir lulls us into thinking our claims are self-evident as well as true, rather than confronting the fact that the people we most want to reach—open-minded doubters, hard but fair critics, and any scientists willing to listen-not only reject most of our accepted wisdom, but take offense that we sound so cock-sure when we have no right to be. We can accept in our own hearts many things we cannot prove. We can talk freely about unscientific evidence among our fellows. What we cannot do is expect the wider world to be so receptive. Our task is not just to make assertions but to prove them, with proof of such integrity that it will persuade or at least confound the opposition. Most of what we know, or think we know, will not suffice. It will belong in a vast gray area of claims and theories meaningful to the already convinced but questionable, even wild and foolish, to adherents of consensus reality. We have to choose carefully the evidential tools of our argument, be rigorous and Spartan in our selection, leaving ourselves nowhere to hide, no smoke and mirrors to confuse the confrontation between our surest facts and the harsh demands of scientific truth. Instead we are often our own worst enemies, our words less likely to persuade than to alienate, until the audience we want to hear us closes us out as a matter of reflex. Problems of whether we should ask scientific questions or choose scientists for our audience loom even further down the road; but like it or not, confess to it or not, it is on the gate of science that most ufologists knock in an insistent but futile effort to gain admission.

What we say about UFOs locates them squarely in the realm of confusion. They are mysterious reali-

ties, they are mistaken identities; mechanical in nature, not even physical in any ordinary sense; harbingers of another world, testimonies of human fallibility. An important concept to bear in mind is an analytical dichotomy introduced by Jerome Clark and destined to haunt the course of this paper from beginning to end: He distinguishes "event anomalies," those reported occurrences that are strange and unknown yet seem to be fully understandable as physical phenomena, from "experience anomalies," occurrences observable like purely physical events and sometimes seen even by multiple witnesses, yet manifesting a strangeness unlike any conventional phenomenon. They are "visions of the otherworldly, and nothing brings them into or keeps them inside this world in any but an experiential sense."2 The folklorist likewise recognizes "personal experience accounts," and a closer parallel to experience anomalies, the "memorate," a narrative cast as a first-person experience of a supernatural event.

For the moment the UFOs discussed here will be unusual aerial sights observed directly by witnesses and presented to an audience that did not share in the experience by means of first-person testimony. To keep it simple these UFOs will be limited to breadand-butter basic reports that describe purported physical objects. I will not introduce convoluted and controversial matters like abductions or Roswell, nor even high-strangeness elements in basic fly-in-the-sky UFO sightings. No talk about meanings or even aliens will appear, since it would be premature to venture so far out into speculative space when we need to stay here on the ground and consider the fundamental question of UFO existence. Three cases that skeptics have attacked recently will serve as examples to anchor the discussion in concrete reality.

The Phoenix Lights

With an estimated ten thousand witnesses, events over Arizona on the evening of March 13, 1997, comprise perhaps the largest mass UFO sightings of all time. The first views of lights or objects in the sky began in the late afternoon, while a V-shaped arrangement of five to seven lights seen headed toward Arizona from the Las Vegas area after 7:00 p.m. set a pattern that would unfold from the northwestern to the southeastern corners of the state during the next two hours. Just before 8:00 p.m. came the first observations from the Prescott Valley of a low-flying Vshaped UFO, with reports from Kingman, Scottsdale, and Tempe over the next half-hour. Between 8:30 and 8:45 lights in a V-formation and an enormous dark boomerang-shaped object with lights attached reached Prescott, the Phoenix metro area, and the airport. At the same time a triangular object estimated to be two miles wide flew slowly over northern Phoenix, bearing dozens of lights and apparent windows. Between 8:30 and 9:00 reports of V-shaped objects arrived from Oracle, Tucson, and Chandler, while some witnesses continued to see UFOs over Phoenix. About 10:00 p.m., just when the excitement seemed about to subside, brilliant arc-shaped formations of lights appeared southwest of the city. Several witnesses videotaped these lights and the footage aired on TV to become media icons of the Phoenix Lights events. Sightings continued as late as 2:00 a.m.³

The sheer quantity of reports leaves a deep impression, but no one better captures the awe and wonder of the experience than eyewitness Tim Ley in his personal account of the UFO that flew over his home north of Phoenix. His ten-year old son called his attention to a small arc of five white lights floating to the northwest at about 8:00 p.m. The family watched the pattern of lights change into a "V" shape as they drew nearer. Ley suspected military helicopters but changed his mind as the lights sustained a rigid pattern for over 15 minutes and he concluded that the object was one solid structure. When closer still, the object revealed a dark, sharpedged shape like a carpenter's square against the stars, with one light at the front and two in each of the arms. The lights gave off a soft white glow that

² Clark, Jerome, Hidden Realms, Lost Civilizations, and Beings from Other Worlds (Detroit: Visible Ink Press, 2010), xiii.

³ "Phoenix Lights." http://en.wikipedia.org/wiki/Phoenix_Lights.

⁽Peter Davenport) National UFO Reporting Center News Release: UFO Over Arizona March 13, 1997, www.nuforc.org/CB970313.html.

⁽Peter Davenport) "Summary of "Phoenix Lights" Event," www.ufoevidence.org/documents/doc1276.htm. (Peter Davenport) NUFORC Special Report: Phoenix Lights: Two Years Later, www.nuforc.org/phoenix.html. (William F. Hamilton) "Phoenix Sightings Summary Report," www.ufoevidence.org/documents/doc1509.htm.

did not illuminate the ground. No sound came from the object as it passed 100 feet overhead traveling no more than 30 miles per hour, but so enormous the witnesses had to turn their heads to take in the sight from one end to the other. The craft passed through a gap in the mountains and reflected the lights of Phoenix on its surface, then became lost among distant aircraft lights and atmospheric haze a few minutes later. Ley believed that extraterrestrials displayed their craft to send a message that they were here to help the world. He illustrated his account with a series of computer images, one of which appeared in *USA Today*.⁴

Peter Davenport's National UFO Reporting Center (NUFORC) and the Mutual UFO Network (MUFON) began receiving reports even as the sightings were underway. Witnesses have continued to submit reports over the years, including one from thengovernor Fife Symington III, who stated on the tenth anniversary of the event that he saw a "massive, delta-shaped craft" between 8:00 and 8:30, and concluded that "as a pilot and a former Air Force officer, I can say with certainty that this craft did not resemble any man-made object I had ever seen." A great many witnesses from all walks of life had their own stories to tell.

Two MUFON investigators were among the first to piece together a story of what happened that night. William Hamilton concluded that at least seven types of UFOs had appeared—some of them formations of lights, some of them triangular objects with lights, and some disk-shaped objects with lights around the circumference. Media treatments simplified the sightings to two events, one the V-shaped object or objects crossing the state and reaching Phoenix around 8:00 p.m., the other those arcs of brilliant lights southwest of the city about 10:00 p.m. Another MUFON investigator, Richard Motzer, found it pecu-

liar that the 10:00 p.m. event that resulted in so many videos actually attracted few individual witnesses. He also noted that those witnesses all resided at higher altitudes and concluded that these lights were located at great distance from the city over a military test range, and visible only to people whose view was not blocked by an intervening mountain. He also questioned the earlier sightings on the grounds that several witnesses identified the UFO as lights of military aircraft flying in a V-formation at high altitude.⁷

Further confirmation for military flares as the solution for the 10:00 p.m. events came from ufologist Bruce Maccabee, who triangulated the location of the videotaped lights and found that their distance corresponded to proving grounds some 75 miles from the city.⁸ The Air Force also confirmed that the Maryland National Guard dropped flares there at the time of these sightings. Some diehards continue to defend the 10:00 p.m. lights as UFO events but skeptics and most ufologists alike now accept the flare explanation as the final word, so that the 8:00 p.m. sightings remain the "real" Phoenix Lights.

In contrast to the critical attention paid to the later event, ufologists largely ignored the possibility that aircraft were responsible for the earlier events. A young amateur astronomer with a ten-inch telescope and experience in viewing aircraft had looked at the formation of five lights as it flew over Phoenix and recognized that the lights were attached to the wings of aircraft.9 Skeptics Tony Ortega and Tim Printy found several other qualified witnesses who recognized the lights as military aircraft, and argued that the time it took these lights to pass from Nevada to southeastern Arizona allowed a jet-like speed of between 300 and 400 m.p.h. Further evidence from the one video taken of this flight showed independent motion among the lights, meaning they were not attached to a rigid object. Objections that the Phoenix

⁴ Tim Ley. "Phoenix Lights UFO," www.phoenixlightsufo.com.

⁵ Kean, Leslie. UFOs: Generals, Pilots, and Government Officials Go on the Record (New York: Harmony Books, 2010), 262.

⁶ (William F. Hamilton) "Amazing 'Phoenix Lights' Event Sequence of 3-13-97," http://rense.com/ufo6/ phoe.html.

⁷ (Richard Motzer) "The Phoenix Lights, the Real Investigation," *MUFON UFO Journal* no.351 (July 1997), 3-6; www.theufochronicles.com/2010/03/ph-lights-real-investigation.html.

⁸ (Bruce Maccabee) "Report on the Phoenix Lights Arrays," http://brumac.8k.com/phoenixlights1.html.

⁹ (Tony Ortega) "The Great UFO Coverup," www.phoenixnewtimes.com/1997-06-26/news/the-great-ufo-coverup.

airport should have picked up these aircraft on radar failed because only the lead aircraft would typically carry an active transponder for this type of flight.¹⁰

The story that skeptics construct for the Phoenix Lights states that many people were out looking for the Hale-Bopp comet during the early evening of March 13th. A flight of military aircraft caught the attention of many watchers and the word spread until large numbers of people saw something in the sky. A common illusion lent the lights an appearance that they were part of some dark solid craft. Reports of the lights on the local news drew more people out of doors, some to see normal air traffic and some, at higher altitude, to catch sight of distant flares over the Estrella Mountains. In the wake of widespread publicity over the following months and years, more and more witnesses recalled their own experiences and added them to the file of Phoenix Lights sightings, often under the influence of the accounts, videos, and illustrations that had gone before.

The ufological story of that eventful night is quite different. It runs that Arizona underwent a veritable UFO invasion on the evening of March 13, with a great many objects of varying size and shape passing over the state. The most impressive were the milesized "V" or chevron-shaped craft bearing lights and often flying at low level over the countryside. A few witnesses even stated that they saw jet fighters pursuing the UFOs, and the conspiracy-minded suggested that the Air Force dropped flares in a deliberate attempt to confuse the public.

Much of the public preferred the ufologists' more exciting version. The undeniable sincerity of Tim Ley and other witnesses who related their personal experiences as moving, even life-changing events carried deep emotional resonance. Many witnesses resented the supposed assertion that they viewed flares, since they knew what flares looked like or at least knew that what they saw could not have been flares. The status of the Phoenix Lights as a mysterious UFO event has become an article of faith among ufologists, witnesses, and the lay public alike. But the hard facts remain that aircraft and flares could provide the stimulus for most of the observations and the lights for all of the videos. Some ufologists object that

too many UFOs were visible that night for one flight of aircraft to explain. Yet most witnesses saw an object passing generally northwest to southeast, as a formation of aircraft might fly, but as multiple UFOs are not obligated to do. The objects flying in varied directions typically depend on the reports of individuals or small groups observing together, witnesses who might have observed something other than the aircraft flight. Though ufologists have plotted the courses of various objects with painstaking care, they have relied on accounts of times and directions that are subjective, prone to human error, and liable to be the same object different only in details cited by one witness or another. Faith in the Phoenix Lights UFO has little basis in fact.

The Yukon "Giant Mothership" UFO

Dozens of witnesses along a 200-mile stretch of the Klondike Highway, in Yukon Territory, Canada, reported an enormous UFO covered with lights on the evening of December 11, 1996. Five witnesses from the Fox Lake area reported extended rows of lights crossing from west to east. One of these witnesses drew an object shaped like a washtub with a shallow pan on top, covered with multiple lights and bearing two rows of rectangular windows. Four witnesses from the village of Carmacks described multitudes of lights, some flashing and some steady as an object the size of a football field flew from the northwest to the northeast. One witness indicated how large the object appeared by extending his arms toward the sky at a 60-degree angle. Six witnesses from the village of Pelly gave accounts. One, a trapper, saw what he thought was an airplane but soon realized that its movements were too slow. When the object emerged into full view he saw a row of perhaps a hundred small rectangular lights, and above it another row of seven large lighted rectangles. A dark oval form behind the lights blotted out the stars. Beams of light flashed out from the front, rear, and bottom of the object, which appeared to be no more than 300 yards high and three-quarters of a mile long. Another Pelly witness described an object as long as the Big Dipper with a cluster of lights like big stars amid a grid of

¹⁰ (Tony Ortega) "The Hack and the Quack," www.phoenixnewtimes.com/1998-03-05/news/the-hack-and-the-quack. (Tim Printy) "The V-formation of lights and my analysis," http://home.comcast.net/~tprinty/UFO/ azconc.htm.

smaller blue lights; still another saw a square of light followed by several other squares, with the entire formation disappearing behind a hill to the east.¹¹

In summary, all witnesses reported numerous lights, some large and some small, some square or rectangular and others round or star-like. The lights covered an extended arc of sky in a passage that took between half a minute to ten minutes, according to witness estimates. Most witnesses believed the lights were attached to a structured craft with windows, rows of smaller lights, and flashing beams projecting from it; all agreed that the object was enormous. For most witnesses the object appeared north of them and passed west to east (or northwest to northeast), though one witness reported that the lights turned southward and two others said the object flew nearly over their heads. The times given for the event ranged from 7:00 p.m. till 9 or 10 o'clock, but the two witnesses who actually looked at a clock gave 8:23 and 8:30 as the time. A widely circulated illustration condenses the reports into the image of a huge circular craft with rows of windows and covered with lights.

Martin Jasek, an engineer, began an investigation of the case three years later for UFO*BC. He discovered 31 witnesses and interviewed 19. He was able to gather sufficiently accurate information to triangulate the size of the object and concluded that it was between one-half and a full mile in diameter. In his formal report he considered and rejected alternative explanations like hoaxes, auroras, military aircraft and meteors. The most serious contender was a Russian space probe launched on December 11, but he rejected it as not being visible as far east as the Yukon, and because the UFO was too large and structured for the space probe to explain. Without a viable alternative, the ufological story prevailed—an enormous craft of unearthly origin flew low over the startled witnesses. This happened to be a story that the witnesses found congenial, since all of them agreed that they observed something extraordinary and most of them took the object to be a UFO.¹²

Skeptics Robert Sheaffer and James Oberg took a closer look at the Russian space probe. Oberg contacted Ted Molczan, a Canadian expert on satellite orbits and reentries, who confirmed that the second-stage booster of Cosmos 2335 reentered the atmosphere about 8:30 p.m. on December 11 and should have been visible low on the northern horizon to witnesses in the Yukon. What the people saw was a long train of incandescent debris sparkling and flashing as it passed west to east in the upper atmosphere. This passage may have taken as long as several minutes. The brightness of the disintegrating rocket blotted out the stars and gave the illusion that a solid object blocked their light. For the skeptics this answer brought the case to a decisive close. ¹³

Ufologists have objected that the sightings occurred over two or three hours, not the few minutes that a reentry would be visible. They also fault skeptics for ignoring one testimony that the object turned south, another that it stopped and even began to approach the witness.14 Yet the fact remains that the two witnesses who looked at a clock state that their sightings occurred about 8:30, the same time as the reentry, while the subjectivity of time can account for the deviations in other accounts. The west-to-east motion of the UFO is cited in all but one "outlier" instance, and the fact that witnesses over the 200-mile stretch of highway report the same motion offers ready evidence that the UFO was distant and not close at hand. Other details out of keeping with the conventional explanation seem readily understandable as error and illusion on the part of the individual witnesses reporting them. No substantial evidence supports an anomalous identity for the Yukon UFO.

The Incident at Exeter

By 2:00 a.m. on September 3, 1965, eighteen-year old Norman Muscarello had walked nine miles and

¹¹ Jasek, Martin. *Giant UFO in the Yukon Territory* (Delta, BC: UFO*BC, 2000), 1-26; Pegasus Research Consortium: The UFO Files: "Yukon UFO 'Mothershp' Incident: December 11, 1996. www.thethievingmoon.com/46jkrog08/02Files/Yukon_UFO_Mothership_Incident_December_11_1996. html.

¹² Jasek, Giant UFO, 27-34.

¹³ Sheaffer, Robert. "'Top Ten' UFO Case: Yukon, Canada, 1996—Busted!" *Skeptical Inquirer* 36/5 (Sept.-Oct. 2012), 22-23. (Same title): http://badufos.blogspot.com/2012/04/top-ten-ufo-case-yukon-canada-1996.html.

¹⁴ (abovetopsecret.com. Aliens and UFOs) "Top Ten' UFO Case, Yukon, Canada, 1996—BUSTED!?" www.abovetopsecret.com/forum/thread835767/pg1 (see p.4)

had another three miles to go before he reached his home in Exeter, New Hampshire. He had sold his car because he was headed to boot camp in three weeks and hitchhiked that evening to visit his girlfriend. Rides were scarce on the return trip and he had to walk most of the way. As he passed a farmhouse a reddish glow illuminated the surrounding area. The source was five flashing lights tilted at a 60-degree angle; only one light shone at a time as they pulsed in a rapid pattern back and forth, 1-2-3-4-5-4-3-2-1. The lights were so bright that he could not distinguish any object behind them, but they stayed together as a body as they moved out over the fields and swayed with a motion like a falling leaf. Sometimes the lights disappeared behind the house or some trees then reappeared again, and once came so close that he dived into a ditch for fear of being struck. The UFO finally retreated across the woodlands after about fifteen minutes.

Muscarello knocked at the farmhouse but received no response. He was able to flag a passing car and get to the Exeter police station, where the officer on duty radioed Officer Eugene Bertrand to investigate. Bertrand had heard the story of a woman motorist upset by a red-lighted object that followed her earlier in the evening, and after hearing Muscarello's account, drove him back to the scene. They arrived about 3:00 a.m. and the two of them had walked into the field when a group of five red lights, flashing one at a time, appeared over a stand of trees then moved across the field. The farm animals became agitated and noisy at this time. As the lights approached him Bertrand dropped to his knees and started to pull his revolver, then thought better and pulled Muscarello back to the cruiser. He radioed another officer, David Hunt, who arrived in a few minutes. By the time Hunt saw the lights they were moving off into the distance, but he stated that the group of lights flashed in sequence and maintained an altitude of about a hundred feet. The animals quieted down as the UFO departed to the southeast in the direction of Hampton, where a man phoned the police soon after to report that a UFO had chased him. 15

When ufologist Raymond Fowler interviewed Bertrand a week after the event, Bertrand compared the brightness of the lights to facing an automobile headlight at close range. They lit up the entire field and two nearby houses with a red light. The five lights always maintained a 60-degree angle and when they moved, the lowest light always led the way. He suspected that the lights were attached to an object the size of a barn, and also remarked that the object could stop, hover, and turn on a dime. When asked to compare the apparent size of the UFO to a familiar object, he said that the object at its closest looked as wide as a grapefruit at arm's length. ¹⁶

The Exeter case lacked nothing for documentation and field investigation. All three witnesses filed statements with the Air Force and some of ufology's best investigators followed up with further questioning. J. Allen Hynek took an interest in the case, while Ray Fowler's meticulous report was published in the Congressional Record for April 5, 1966, as part of the House Committee on Armed Services hearings on unidentified flying objects. John G. Fuller, a columnist for Saturday Review, learned of the case from Fowler and began his own investigation, leading to magazine articles in Saturday Review, Look, and Reader's Digest, while a popular book, Incident at Exeter, followed in 1966. In this book Fuller also explored scores of other cases reported around New Hampshire during the fall of 1965.

The Air Force had a ready explanation for the Exeter sighting—nighttime maneuvers designated "Operation Big Blast" operated out of Pease Air Force Base, ten miles outside the town, on the evening of September 2. The witnesses simply saw an aerial refueling operation at the end of these maneuvers. This seemingly plausible explanation foundered on the fact that all Big Blast aircraft had returned to base by 1:30 a.m. on the 3rd, while Bertrand complained that he gained extensive familiarity with refueling operations during his four years in the Air Force and the UFO resembled nothing he had ever seen. As a result of Bertrand's protest Project Blue Book reversed its verdict and declared the case "unknown." ¹⁷

¹⁵ Hynek, J. Allen. The Hynek UFO Report (New York: Dell, 1977), 154-165.

¹⁶ Fowler, Raymond E. Casebook of a UFO Investigator (Englewood Cliffs, NJ: Prentice-Hall, 1981), 34-43.

¹⁷ Hynek, Hynek UFO Report, 161-165.

Other attempts to explain this UFO have ranged from the improbable, like an advertising aircraft (at 3:00 a.m.?) and electrical plasmas that detached from nearby power lines and floated across the countryside (unfounded and unlikely), to the more reasonable proposal that the planet Jupiter was responsible (probably true for some other reports but does not fit the testimony of the Exeter witnesses). Another explanation postulated a hoaxer flying a kite with flashing lights attached to the string. This proposal explained the 60-degree angle and the "falling leaf" motion, but raised too many other questions, like why would anyone carry out a hoax so late at night, or how could anyone run off through the woods but not entangle the kite string in the trees?¹⁸ With no viable conventional explanations at hand, ufologists trusted that a genuine UFO had descended on the rural fields outside Exeter, one of a series of sightings in that same area. Three credible witnesses confirmed the sighting and elements like the falling-leaf motion and animal reactions tallied with other reports as typical of UFO encounters. Truly, then, this case seemed to be one for the ages.

A reexamination of the case by James McGaha and Joe Nickell reopened the possibility that a refueling aircraft was responsible. They pointed out in the November-December 2011 issue of Skeptical Inquirer that the KC-97 tanker very probably participated in the Big Blast maneuvers. This tanker had five lights above its refueling boom that flashed to guide aircraft to docking, and since the boom hung at a 60-degree angle, reflections of these lights off the boom could account for the witness observations. A slow-moving tanker circling the rendezvous area might appear to chase the witnesses on the ground while fluttering of the boom in the wind could explain the falling leaf motion. The tanker could thus answer the most striking observational questions raised by the Exeter UFO. At last a conventional solution to the longstanding Exeter mystery seemed at hand. 19

Ufologists did not buy this new solution. No refueling operations should have been underway an hour

and a half after the end of the maneuvers, and in any case a low-level refueling operation over an inhabited area in the dead of night would be foolhardy and dangerous. And the fact remains that Officer Bertrand was familiar with nighttime refueling operations.²⁰ The most trenchant rebuttal came from Martin Shough, an association of the National Aviation Reporting Center for Aerial Phenomena (NAR-CAP). He pointed out that for the guide lights to appear as individual lights, the tanker would have to be no more than a mile away, and more probably a half mile at most. To stay in sight for as long as the observations lasted, the tanker would have to be flying as slow as about ten miles an hour, far too slow to stay airborne; and even allowing for significant overestimates in timing, the tanker's air speed would still be too slow. Shough's rebuttal makes clear that the tanker explanation does not fit the reported facts and is, in fact, mathematically impossible.²¹

The dispute might end here, but Shough suggested an alternative solution in which aircraft might explain the Exeter incident. He said that rotating red anti-collision beacons on several B-47s flying in formation at some distance could explain both the UFO lights and the duration of the sighting. The witness observations would depend on a lot of coincidences and he did not muster any enthusiasm for his own proposal, but here at least was one conventional explanation with some viability. Some evidence even exists that there were B-47s or other large aircraft in the air as late as 3:00 a.m., even if not related to Operation Big Blast. The skeptics did not explain the Incident at Exeter but they opened a dialogue that led to another possibility. Ufologists may continue to defend Exeter as a genuine UFO case, and legitimately so; but these new examinations have diminished it to the point that it can no longer settle securely on every ufologist's top-ten list.

¹⁸ Bullard, The Myth and Mystery of UFOs, 37-38.

¹⁹ McGaha, James, and Joe Nickell. "Exeter Incident' Solved! A Classic UFO Case, Forty-Five Years 'Cold'." Skeptical Inquirer 35/6 (Nov.-Dec. 2011), 16-19.

²⁰ (The Big Study) "The Recent Fuss about the Exeter Case." http://thebiggeststudy.blogspot.com/2012/04/recent-fuss-about-exeter-case.html.

 $^{^{21}}$ Shough, Martin. "Exeunt Exeter?" (posted April 2012). www.martinshough.com/aerialphenomena/EXETER%20N.H.%20Sep%202-3%201965.pdf.

What's Right With Ufological Investigation

Lest anyone rush to judgment and condemn ufologists as always incompetent, amateurish, or cultists bent on confirming a belief, a look at the Phoenix Lights, the Yukon Mothership, and the Incident at Exeter demonstrates just the opposite. Much effort and a high degree of skill went into the investigation of events that truly merited such attention. These examples clearly fit a checklist of reasons to regard them as promising UFOs:

- 1) The three sightings were authentic events with documentation to show that they were more than a hoax, rumor, or media fabrication.
- 2) The objects observed had obvious intrinsic interest.
- 3) Descriptions of the objects were rich in information.
- 4) Witnesses of the objects were dependable, credible persons.
- 5) Corroborating testimony supported each case. This support came from the testimonies of multiple witnesses in all three, and from the instrumental evidence of photography in Phoenix.
- 6) The evidence was detailed enough that investigators could "do some science" with it and add to their understanding, for example triangulation of objects in the Phoenix and Yukon cases allowed determination of distance or size from the reported observations.
- 7) The testimonies provided coherent accounts and largely confirmed one another.
- Some descriptions matched previous experience and these similarities tied the cases to other UFO descriptions.
- 9) A thorough investigation gathered testimony and supplemental evidence directly from the witnesses, with inspection of the site and with regard for exact positions, time, and angular size of the object.
- 10) All three cases underwent critical examination both by ufologists and skeptics in an effort to find conventional alternatives, yet survived (at least for a while) as genuinely puzzling anomalies

A consideration of what is best in ufological investigation could start with recognition that these "Ten Commandments" for identifying quality UFO cases fulfill reasonable, rule-of-thumb selection criteria that could apply (at least with some modification) to any anomaly. The three examples represent undeniable experiential events, describe robust, intriguing observations, and rest on abundant, detailed testimony from multiple sources. In the word of the witnesses these sightings amounted to far more than nondescript lights in the distance. Something curious, something strange and worthy of investigation, was clearly afoot.

The three cases exemplify the investigators' obvious passion for thoroughness. Investigators in all three cases collected extensive files of sightings and as much supplemental evidence as possible, like videotapes. Field investigations and follow-up interviews of witnesses also filled in the informational gaps to gather as much firsthand information as humanly possible. If ufologists arrived at wrong conclusions the reason was not a lack of raw data.

Another strength was a willingness to listen to the witnesses, to take them seriously and not be too quick to second-guess or over-interpret what they said. The investigators followed the lead of their informants and accepted their descriptions as the factual foundation on which to base interpretation, so that, for example, if witnesses said they saw a dark, V-shaped form behind the lights, this object becomes the given reality to explain. At least ufologists did not completely distort testimonies and force them to conform to some preordained idea.

When the time came to bring narrative order to the collection of reports and tell a coherent story of what the witnesses observed, the results in these three examples held close to the testimonial evidence. The Phoenix story included multiple UFOs, some triangular and at least one circular, crossing the state and passing over or near the city. The Yukon story made room for people at various positions along 200 miles of highway seeing the same giant craft. The Exeter story had a flashing red UFO appear twice over a farm and scare two motorists the same night. Rather than invent a story without foundation in the testimonies, the investigators combined individual stories to encompass multiple accounts and different points of vantage, resulting in a "big picture" narration that is hypothetical yet firmly based on the full body of testimony. If ufologists erred, they could say with fairness that they simply followed the lead of the witnesses.

Ufologists typically—and understandably—have a desire to find UFOs as the cause of a spectacular case. This will-to-believe stigmatizes ufology with

suspicions that its practitioners are uncritical and determined to make a UFO out of flimsy evidence or no evidence at all, but these three examples show quite a different picture. Extensive investigations probed each case, and far from any image of true believers enjoying a holiday of self-confirmation, ufologists did not automatically leap to the conclusion that a UFO caused the sightings. Jasek considered a list of conventional possibilities for the Yukon object but rejected each one for due cause. Ufologists identified the 10 p.m. Phoenix Lights as flares but built a sound case that the 9 p.m. lights were not flares. Such explanations for Exeter as advertising aircraft, a kite hoax, or KC-97 tankers met with effective refutation from investigators who truly did their homework. Of course ufologists wanted these cases to be UFOs, but they based their defense on reason and evidence rather than hope and delusion.

What Went Wrong

For the three example cases ufologists obeyed the Ten Commandments of selection, carried out diligent investigations, and defended their conclusions with evidence and reason. This path of rectitude should have led to genuine UFOs and cases of the highest quality. The truth is just the opposite—the skeptics seem to be correct and each of these cases appears to have a conventional explanation. Ufologists were righteous but not right; their methodology failed here and the bitter conclusion must be that ufological methodology is inadequate to do its job. That is, we cannot pour in data at one end, expect the wheels to turn and a guaranteed UFO to emerge at the other end. The time of praise is over and a round of faultfinding must begin, with a general drift that ufologists trust too much in fallible human testimony and too little in selective, informed judgment.

Failure to distinguish signal from noise. Even the least controversial practice of ufologists, their accumulation of exhaustive data, cannot qualify as an absolute good. Important as such thoroughness is, too much information can be too much of a good thing. Mountains of facts can hide the total picture. The skies around Phoenix seemed overrun with UFOs as report after report flooded in, but the multiplicity of reports could be deceiving, a matter of many people

seeing the same thing from different positions and angles. Some defenders of the Phoenix Lights fall back on this supposed multiplicity of objects to dispute both flares and a single flight of aircraft as causes, but this free acceptance of the confusing welter of reports may offer no more than false comfort. Later reflection has winnowed down the number of independent objects, with errors of timing and direction or confusion over lights from ordinary air traffic responsible for many "other" UFOs that night. The argument for multiple objects based on the mass of raw data grows thinner and thinner. Too much data is better to have than too little, but mere accumulation cannot serve as a goal in itself and data requires discriminate understanding to become useful information.

Failure to weigh evidence properly. Another hazard for ufologists lies in their preference for literalist readings at the expense of judicious interpretations. The word of the witness holds great value. It brings listeners as close as they can get to the actual experience, and eyewitness testimony, the honest account of good people, stands in the highest popular esteem for reliability and trustworthiness. At the same time this word is not sacrosanct. A great deal of scientific research has probed the value of humans as instruments of observation, and these studies make clear that a more labyrinthine and treacherous process than observing an event and relating an accurate report can hardly be imagined.²² The witness possesses the authority of experience, but experience itself combines real events with imagined ones, with errors, misperceptions, preconceptions, and the reconstructions of memory, so that the story of the witness can do great mischief to the description of an event. An investigation has to be more than a conduit for testimonies; it also has to add value through an active process of understanding, to make proper sense out of literal testimonies through careful but unsparing critical evaluation.

When ufologists come to construct a scenario of events, they labor under the handicaps imposed by their own good intentions. In their effort to take every report at face value they strive to fit in every bit of testimony, but with the consequence that all faults and errors inherent in the raw data mix with the legitimate facts. The result is a half-truth that misleads

²² See Elizabeth Loftus and Katherine Ketcham, *The Myth of Repressed Memory* (New York: St. Martin's Press, 1994), especially pp.3-4,47,77-79,90-100,266; Richard Ofshe and Ethan Watters, *Making Monsters* (New York: Charles Scribner's Sons, 1994), esp. pp.36-43,62-63,107-111.

their own understanding and provides detractors with an easy target. As a case in point, the Yukon sightings spread over several hours if we accept all witness time estimates, and a reentry event clearly would be impossible over such a long period. Yet the most definite timings when witnesses actually checked a clock limit the sighting to a short period around 8:30, the very time that happens to correspond to the reentry. A literalist reading of the times creates a UFO where selection of the best-case evidence resolves the sightings into a conventional event, for an obviously significant difference in outcomes. Perceptions of time are vulnerable to subjectivity, and critical rejection of some reported times as probably erroneous is not only reasonable, but clears away a major obstacle to solving the case. In this instance an exercise of judgment better serves the truth than strict adherence to the word of every witness.

Failure to take account of human errors in witness testimony. A vital consideration in understanding reports is how they may go wrong. Even the most honest and conscientious eyewitness faces potential errors of perception and conception, of memory and communication, that threaten to distort anecdotal evidence at every step. How a witness perceives an event depends on physical conditions and perspective—for example, an advertising airplane looks very like a flying saucer when seen at a particular angle and distance. Personal differences like diminished visual acuity may limit perception, while some mistakes result from illusions like autokinesis, the apparent movement of a stationary light source against a dark background, or mistaken frame of reference, most familiar in the case of the "racing moon" against a background of broken clouds, when in fact the clouds are moving and the moon stands still.

All three example cases show witnesses convinced that the lights they saw were attached to some dark framework that they inferred or discerned only vaguely. A vivid part of the Phoenix Lights story was the enormous V-shaped craft; of the Yukon case the tub-shaped object as big as a stadium; of Exeter a barn-sized bearer of the flashing lights. The lights were plain enough but the object behind them became evident only because it blotted out the stars or appeared darker than the night sky. Many witnesses were convinced they saw these dark objects but ufologists would be wise to doubt, since such appearances

can result from commonplace errors. One is the "contour illusion" as the mind tends to fill in gaps and connect unrelated objects into geometric forms, another is an illusion of contrast as the brighter lights make the adjacent field of view appear darker, and lesser lights like stars seem to fade out as if eclipsed by a solid object. These illusions are well-known in other contexts but ufologists often overlook them as potential complications in a UFO sighting.

Conceptual errors occur when witnesses confuse what they see with what they expect to see. Some spectacular UFO reports, full of elaborate and sincere details of flashing, multicolored lights from a metallic craft that lands nearby, have resolved into nothing more unusual than the planet Venus distorted as it set by the thick atmosphere near the horizon.²³ Space debris has provided the perceptual basis for more spectacular UFOs than the Yukon mother ship, as preconceptions of how a UFO should look serve as a conceptual template that reconfigures the burning lights high in the atmosphere into windows on an elaborate alien craft near the ground.

Memory solidifies the real and the erroneous alike into the personal experience of the witness, but memory itself remains plastic and pliant. It is subject to modification from rethinking, reconciling the experience as it was with the experience that should have been, or with the experience a witness wanted to have. New information becomes incorporated into the memory and the influence of other individuals or the media also presses for updates in the witness's recollection of the past. Memory of a UFO is not a matter of replaying a permanent videotape but a process of reconstruction with modifications incorporated. Communication requires setting the memory of an experience into words, and words bring their own load of cultural baggage. The words we choose depend on the words available to us. For example, in describing reentry events some witnesses speak of a "formation" of lights. The word is a familiar one for several lights traveling together in the sky, but the term introduces an element of error into the account. A formation applies to objects flying together under deliberate guidance, like aircraft, whereas a "constellation" is the proper-but unfamiliar-term for a group of lights that happen to be flying near one another at the same time and going in the same direction. The narrators know what they mean but when

²³ See, for example, the Condon Committee's case 15. Condon, Edward U., and Daniel S. Gillmor. Scientific Study of Unidentified Flying Objects (New York: E. P. Dutton & Co., 1969), pp.290-291.

they speak of a formation they may leave unintended and misleading impressions on the hearers.

No witnesses observe with their minds a blank slate, and any effort to understand both reports and interpretations must reckon with the expectations, wishes, and predispositions that guide the thinking of everyone involved. To understand an anomalous event means to connect it to some established framework. The witness has to find the categories and words to describe an observation; the interpreter has to find meaningful comparisons to make sense of what the observer describes. Ufologists bring a readymade, well-developed system of facts and meanings about UFOs to a fresh report of mysterious objects in the sky. This accepted reality provides a template of understanding and with it ufologists incorporate the new observations into the old and established framework. The resulting story is a "UFO version" that makes sense of the described events in UFO terms. Application of the UFO framework begins as soon as the ufologist hears of an observation, and continues as the ufologist investigating a sighting asks questions and hears answers attuned to prior knowledge of the nature of UFOs. At worst this process imposes expectations in spite of anything contrary that the witness says; more often the imposition is more subtle, with the investigator slanting words of the witness to square with UFO doctrine in ways that seem more like a clarification than an alteration of the report. But in any case a body of exterior ideas colors everything written or said about a case from beginning to end.

Failure to reckon with social and cultural influences. The fact that witnesses often share UFO ideas goes far to lend the ufologist a helping hand. UFOs occupy such a familiar place in popular belief and cultural mythology that they have become everyman's go-to solution for any unknown objects seen in the sky today. The witnesses in these three cases were willing enough to regard their sightings as UFOs, reported them as such, and attributed to them the properties expected of UFOs. Since ufologists shared the same ideas, investigators and witnesses joined in common cause as they cast these experiences as UFO events. The story that ufologists told mixed facts with interpretations and expectations yet scarcely differed from the story that the witnesses told, so that one narrative reinforced the other in happy agreement.

This shared version of reality provides mutual reinforcement for the prior beliefs of both witnesses and ufologists, with the downside that a readily accepted UFO solution may appear more inevitable that it should. The story of a UFO event promotes a chosen image of facts assembled according to a preexisting template of ideas. A picture of what the witnesses saw shows the supposed object but also mingles truth and fiction in uncertain proportions. The "visual mythology" associated with these cases is especially instructive since it exemplifies how the "alien spacecraft" version of a UFO event can thrive from preferential treatment. The Exeter case has been the subject of multiple depictions throughout its long career. An illustration for an article by John Fuller appeared in Readers Digest for May, 1966, showing the UFO as a string of six grape-like lights over a farmhouse. The UFO Phenomenon, a Time-Life Book published in 1987, dramatizes the event with a doublepage depiction of a glowing red disk with panels of lights flashing around the perimeter. Another illustration circulating in the UFO literature by 1967 presents the Exeter object as a classic flying saucer with silvery metal hull, lighted portholes, fins, antenna, and a red glowing rim, so mechanical in appearance that a chrome grill and license plate would not seem out of place.²⁴ The Readers Digest picture was the least explicit. It portrayed the UFO as something strange and out of the ordinary without imposing too many questionable details, whereas the "flying saucer" version went to such extremes to transform the object into an extraterrestrial spacecraft that little of the original descriptions remained. The Time-Life illustration did not turn the UFO into a metallic craft but left no doubt that it was artificial and unlike anything from this planet—and of course this book enjoyed a wide readership.

Illustrations like these further a conviction that the sighting was so unambiguous and well-defined that the only legitimate question is, "How could anyone look at these pictures and doubt that the witnesses saw a mechanical craft of unearthly origin?" These depictions take much of the imagination out of the viewer's reception. They tell the audience what really happened with explicit images that are compelling but misleading. These images impose a certainty that may not reflect the words of witness testimony with close accuracy, and sometimes go to extremes of

²⁴ Fuller, John G. "Outer-Space Ghost Story." *Reader's Digest* (May, 1966), 72; *The UFO Phenomenon* (Alexandria, VA: Time-Life Books, 1987), 100-101; cover of *Flying Saucers* (Ray Palmer, ed.), no.55 (December 1967).

distortion. Like the verbal construct of the sighting, they reflect choices ufologists make in how to tell the story, what to notice in the testimony and what to overlook, what to emphasize and what to downplay. These choices seem truthful and accurate to ufologists but betray a preference, perhaps largely unconscious, that the sight in the sky corresponded to the ufological ideal of an alien spaceship. Whether in visual or verbal form the UFO myth, like all myths, threatens to replace sloppy, ambiguous reality with an improved version, a clear and meaningful picture appealing to the public and ufologists alike, with no drawback aside from the inconvenient fact that it is a fiction or partial truth.

To speak of a "UFO mythology" does not mean to dismiss the subject as a mere false belief. In fact the term honors the complexity and rational integrity of a well-structured system, replete with its own accepted facts, meanings, and consequences, that equips the ufologist with a ready kit of intellectual tools to assimilate new observations and understand an unknown phenomenon according to the internal truths of the system. At the same time our ufological understanding is hypothetical, its factual buildingblocks often putative rather than proven, its structures of understanding speculative rather than demonstrable. Many of those facts depend entirely on lowlyvalued anecdotal testimony. Ufology does not share the experimental evidence and consensus support of an accepted science. Ufologists, unlike mainstream scientists, have not been able to nail down each plank in their structure and build each new step on the sturdy and established steps before it. Therefore the ufological version of reality remains mythical, a selfcontained system of knowledge that is wellintegrated, compelling, and rich in explanatory power, yet still consists of beliefs to a considerable extent. Mythic theories of reality may hit the target for truth, but without a proper scientific foundation they have increased likelihood of falling short or going astray. The burden of proof that UFOs are real outside their own belief system rests on the proponents.

Any attempt to separate the physical or objective truth about UFOs from wishes and illusions must also contend with human issues of personal commitment and social pressures. Skeptics and ufologists bring their own agendas to a UFO case. One side sees only the misidentification of conventional sights and a credulity that corrodes the rational order of society; the other side sees exciting new knowledge and the

chance to be on the forefront of one of the most important discoveries in history. Both sides think they know the truth, both want to win, both will fight tooth and nail for their cause. Spectacular, wellwitnessed, well-publicized events like the three cases discussed here raise the stakes for both sides. Ufologists see "ambassador" cases, the kind to send out to hostile audiences and win them over, the kind to defend at all costs as the best examples of the claims ufology promotes. When a governor backs one case and Hynek another, its value grows beyond simple rational argument to become a matter of ego and prestige for both sides; long familiarity adds to the investment. Once personal involvement tips over from mere curiosity into commitment, emotional ties to the case entangle with rational connections and retreat becomes difficult or ceases to be an option. The more entrenched this commitment grows, the more the committed resist any question or doubt. Ufologists are sure they have a handle on evidence for an amazing and important truth but they cannot persuade the opposition, to their considerable frustration and anger. As a result the dispute often veers away from evidence toward conspiracy theory and ad hominem attacks. The discussion itself becomes personal, emotional, sometimes ugly. An atmosphere corrosive of the dispassionate evaluation of truth settles over the subject to the detriment of all inquiry.

The witnesses adhere with similar tenacity to their experience. They may bow to authority on quanta and dark matter since these subjects are remote and recondite, but an experienced anomaly places witnesses on the front line and they defend the fact of their experience and perhaps also their roughand-ready understanding of it against any doubters or detractors. An experienced anomaly is a very personal matter and likely to inspire more emotional defensiveness than rational defense. Ufologists side with witnesses to defend their truthfulness and to oppose the undeserved ridicule that often befalls them. An embattled union takes shape and once the wagons circle, social solidarity keeps everyone behind the defensive perimeter loyal to the common cause. The defenders expect the worst from the opposition and resist even a reasonable conventional solution like flares for some Phoenix sightings. Again truth falls as a casualty in the crossfire of human motives.

Failure of investigators to confront their own preferences. By far the most hazardous step in an investigation occurs when ufologists decide on the meaning of the data they have gathered. However thorough, volumi-

nous, and meticulous the testimonies may be, they need interpretation and explanation to make any sense; and if ufologists are hesitant to evaluate the testimonial evidence, they seldom hesitate to draw conclusions about its underlying cause. The investigator's choice stamps an identity onto the case that holds more importance for everyone involved than all the data and all the hard work that came before it. Whether the case is a matter to forget or to treat as a revolutionary challenge to current consensus opinion starts here, and here concentrates the disputation over the truth of the chosen identity. The same data may support either a conventional or an unknown conclusion depending on the reasoning behind it, and the decision, along with all the arguments pro and con that it inspires, often depends on more than straight objective evidence. This outcome can turn on such unwelcome factors as errors, preconceptions, or shortcomings in knowledge.

These influences weigh on ufologists' conclusions in all three of the examples. Observational errors—like the illusion of a dark object behind lights and a readiness to regard separate lights as part of one solid object, mistakes about size and distance, and subjective perceptions of the duration of an event or the sense that an object reacts to the presence of a witness-create testimonial "facts" that are dramatic and compelling, but false. Left to stand unchallenged, these false facts lead to persuasive stories or illustrations and go out into the world to persuade the public that the evidence confirms genuine UFOs of high strangeness. Take away the desired appearances and the cherry-picked evidence, give equal weight to alternatives and unsupportive testimony, and an apparently robust case may diminish to a thin, pale shadow of its former self. Whether ufologists will face these flaws and follow up with the right questions remains uncertain. The three sightings met preconceptions for a desirable UFO event so well that resistance confronted even the most substantial criticisms, and the cases circulate today in the UFO literature as examples of the best evidence for UFOs without regard for the significant strikes against them

Failure to apply the right expertise to cases. Some ufologists are hard-nosed and duly skeptical. Richard Motzer questioned the 8 o'clock Phoenix Lights as aircraft and the 10 o'clock sightings as flares from an early date; Martin Jasek tried out a list of alternatives before deciding none of them could explain the Yukon UFO. Some ufologists also bring deep expertise to their explanations. Bruce Maccabee and others

plotted one formation of Phoenix lights to a military test range far from the city for convincing proof of flares. Martin Shough determined that the attractiveness of a KC-97 as the source of the Exeter UFO could not save this explanation from the mathematical incompatibilities of distance and duration.

Most ufologists are less circumspect, less inquiring, less ready or able to weigh alternatives. The failure to face telltale counterevidence can begin at the basic level of common sense. For example, if we accept that multiple UFOs converged on Phoenix between 8:00 and 9:00 p.m. one evening, and that most of those UFOs were a mile in size, we should ask ourselves how many giant UFOs can share the sky and yet be seen only one at a time. The easiest way out of this bind admits that most witnesses saw only one big something, while various individuals confused the issue by reporting other unrelated lights or objects. Few ufologists have asked this question in any public forum, and maybe just as well from a proponent's perspective, because the flight of aircraft solution gains credibility if most people reported the same large "object." The Yukon case poses problems that should be game-stoppers from the start: Why does the UFO stay to the north and always pass left to right for observers along 200 miles of highway? A single distant object explains the observations readily enough; otherwise the UFO has to restage its appearances for each witness, for an understanding as inelegant as it is unlikely.

Perhaps the single most important key to the right solution is having the right expertise. Ufologists work hard to amass evidence, collect testimony, and build a case that a genuine UFO underlies the sightings. That case can be persuasive and impressive, as in these three examples. The testimony said yes to the anomalousness of the events and efforts to find alternatives said no to their viability, leaving an unknown event as the only solution that fitted the evidence. As far as the investigators' facts and reasoning went, the UFO conclusion won out as the best available. Maybe some of the effort was clumsy or partisan or overly rhetorical, but at least ufologists made a goodfaith effort to reach the truth, and if it just happened to favor the outcome they desired, then, after all, somebody had to be right. Only in these three cases it made no difference that the ufologists did everything right, since in the end it seems that their answers were wrong. In the final reckoning expertise made all the difference.

Ufologists may have fought a fair fight and supported the popular side of the issue, but a hard and unfortunate fact about the truth is that it is neither democratic nor fair. Hundreds or even thousands of witnesses of the Phoenix Lights thought they saw either a formation of five lights or a V-shaped craft bearing these lights. One witness turned his telescope on the lights and recognized five lighted aircraft. One against a thousand does not carry much weight if every vote counts the same and one dissenting voice out of a thousand scarcely seems worthy of notice. Many witnesses have decried the aircraft explanation as wrong, or accused the dissenting witness of incompetence. Yet he had the experience, the right equipment, and reached a tenable conventional solution that also happened to square with the video tape showing independent motion among the lights. This one witness saw better than the thousand who lacked a good telescope, knowledge of the appearance of aircraft when seen through that telescope, or readiness to accept a conventional solution. His expertise and situation prepared him to be the better observer, and for that reason his lone testimony outweighs a thousand others. At least anyone receptive to a conventional solution and willing to accept it as more likely than an alien spaceship can choose the airplane solution with a reasonable confidence that it is true, even against the governor and multitudes of sincere witnesses and earnest field investigators—not fair, just

A telling fact in favor of a conventional solution for the Yukon UFO was the reentry of a Russian rocket over northern Canada at the time of the sightings. In this case witnesses described appearances that conformed to other observations of space debris burning in the upper atmosphere. The ufologists investigating this case considered and rejected this possibility, but their reasoning depended on some of the times cited by witnesses and some assumptions about position that ruled out the visibility of the reentry where the witnesses were located. This reasoning was sound but its factual basis was not. Some reported times were inaccurate, while skeptics consulted an expert with authoritative knowledge of the reentry event and found that timings and positions coincided too closely to doubt that the reentry was responsible for the sightings. The ufologists worked hard and well to reach their conclusion but the skeptical expertise trumped their limited and faulty knowledge—again not fair, but true.

An emergent theme in these reflections is how important just the right knowledge turns out to be for solving UFO cases. It works very much like a key, a narrow and exacting implement that succeeds when it fits and otherwise does nothing. A case like Exeter that seemed iron-clad against conventional explanation as skeptics tried one wrong key after another finally opened, at least a crack, for a scenario with multiple military aircraft. Real-world events do not necessarily have one solution, or a simple solution, or a tidy solution. The real world is complex and difficult, its puzzles insoluble even to a roomful of bright and tenacious people, until someone with just the right knowledge or perspective or insight hits on the answer. Like a crossword puzzle clue, the result may seem obvious once it is found but until then appears meaningless and destined to remain forever unknown. The wonder is that successes come as often as they do, given the diversity of causes that might lead to a UFO sighting. Not so much a cause for wonder, under these circumstances, is the failure of ufologists to discover a conventional solution even when one underlies a case.

Failure of cooperation. Ufologists comprise a diverse group from many backgrounds and specialties. Taken as a whole they gather a great deal of expertise, but in practice they apply little of this potential variety to the investigation of UFO cases. One cause for this shortcoming is the amateur nature of ufology, another the lack of time and resources, yet another a personal commitment to the extraterrestrial hypothesis or some other favored paradigm. No well-drilled professionalism prepares a UFO investigator to overcome self-taught prejudices or pressures originating in the ufological community and investigate cases with ideal scientific detachment. Moreover, in dealing with real-world events that are complex and by their very nature unfamiliar, no individual is likely to enter the field equipped for every eventuality. A mysterious event calls for the broadest spectrum of expertise to make sense of it and get at the truth. Doubters and skeptics may hold that expertise, or have access to it. Ufologists may not like people who question the reality of UFOs, but in rejecting the contributions these opponents can make for reasons of their attitude or old enmity, the result is defending a belief at the expense of finding the truth. Some ufologists feel perfectly comfortable with that restriction, but I would rather hear less combative rhetoric and more willingness to listen to anyone with knowledge and insight to

contribute, no matter whether the dialogue leads for or against my preferred outcome.

Is Science Really the Best Approach to Anomalies?

This year, like most years, I attended the MUFON International UFO Symposium. The location was Las Vegas and the only way to reach the meeting area was to pass through a casino, after which it was hard to say which scene was more surreal, the earnest and well-received talks about alien visitation or the crowds of people engaged in long, solitary relationships with electronic slot machines. But for ufologists their subject is as real as microscopes and mineral specimens. The subtitle for the 2013 convention was "Science, UFOs and the Search for ET," in keeping with most MUFON proceedings over the past 44 years that have paired science and UFOs as the overarching conference theme, with "The Emergence of a New Science," "A Scientific Paradigm," "A Scientific Enigma," and "Connecting with the Scientific Community" just a few examples. Make no mistake about it, mainstream ufologists insist on a militant commitment to science by their persistence in laying claim to the status and prestige of scientific knowledge, if not to the methods and strictures of scientific procedure. And by "science" ufologists mean hard science, the type that studies material objects to include, by some stretch of imagination, the technology of extraterrestrial visitors.

UFOs started out as the ideal hard-science anomaly. The flying saucers were shiny metallic aerial vehicles carrying physical beings, and if a saucer landed, you could kick it and it would go "clang" in the night. Saucers represented technology of a sort many science-fiction space operas had anticipated, a technology we could foresee in our own future, a linear descendant of jets and rockets only advanced enough to fly circles around our aircraft and travel between the stars. Even C. G. Jung writing in *Flying Saucers: A Modern Myth of Things Seen in the Sky* (1959) accepted that since these objects registered on camera film and radar they had to be physical. He did not care about their physical nature or even if aliens pi-

loted them, only in their archetypal symbolism; and for that purpose whether alien visitation was real or imagined made no difference because observations or visions served the psyche equally well as the collective unconscious healed its imbalance in a time of crisis. He could have his saucers both ways because they belonged to the same psychological myth whatever their ontology.²⁵ Most people interested in UFOs wanted only the machine and cared nothing about the psychology. For them the foregone conclusion held that aliens from space were visiting us in the same way we planned to visit other planets, maybe to help and maybe to harm, and this possibility constituted the most exciting mystery of our time. People who pursued this mystery saw themselves at the vanguard of a wonderful discovery, and looked forward to the imminent resolution of the mystery as the aliens revealed themselves in open landings or the government gave up the truth that they had hidden from the public to prevent mass panic.

The sharp metallic edge of the 1950s began to blur in the 1960s as reports showed a seemingly less technological side to UFOs and ushered in the "high strangeness" era. UFOs became less mechanical and more and more surreal, appearing and disappearing rather than simply traveling. They shape-shifted and emitted beams of light that bent, twisted, and broke off like solid objects. As abductions came to the forefront, ufologists had to deal with the phenomenon of "missing time" and UFO occupants that passed through solid doors like ghosts; sometimes abductees reported that aliens haunted them in ways reminiscent of poltergeist manifestations. Jacques Vallee recognized the similarities between activities of UFO aliens and traditional fairies in his seminal book, Passport to Magonia (1969). Some ufological apologists defended straightforward materialism by reducing high strangeness to an alien technology that only appeared magical because it was so far advanced, but a new door had opened and through it passed Men in Black, aliens that acted more like traditional poltergeists or demons than respectable spacemen, and encounters that seemed to happen in a parallel universe.²⁶ The old image of straightforward alien astronauts appeared inadequate and out of date, a

²⁵ Jung, C. G. Flying Saucers: A Modern Myth of Things Seen in the Sky (New York: Harcourt, Brace & Co., 1959), xi-xiv, 8-11, 14-20, 151-152, 164-166.

²⁶ See Jerome Clark's entry on paranormal and occult theories of UFOs in *The UFO Encyclopedia* (Detroit: Omnigraphics, 1998), 696-708.

relic of 1950s science fiction. Both reports and theories reflected this new wide-open policy, and even concerns like crashed saucers at Roswell that seemed to draw ufology back toward its materialistic roots mutated into a weird miasma of conspiracy theories and gave us speculations that aliens joined with the Illuminati to subvert human freedom and even human genetic integrity.²⁷ J. Allen Hynek's ambition to create a scientific ufology took many wild detours through Magonia and then into the paranoid shadowland of conspiracists.

Materialistic ufology holds an attraction for certain types of people. It appeals to engineers, technologists, and those who favor a hard-science view of the world. Anyone looking for an adventuresome quest, especially males, according to one study, favor UFOs or cryptozoology as a pursuit suited to their tastes, while ESP, reincarnation, or other anomalies centered in the inner realm and calling for more static or subtle investigations seldom excite these people. Yet even reputably "physical" anomalies have had a way of following UFOs into the insubstantial twilight. Cryptozoologists of the "tracks-and-turds" school seek out physical evidence for Bigfoot in the Pacific Northwest, but he turns up in back yards and on doorsteps all over the country with some of the same supernatural properties attributed to aliens. Psychical research is sometimes drawn out of Dr. Rhine's laboratory to investigate poltergeists and ghostly manifestations in the everyday world. Many of the happenings collected by Charles Fort and designated as "Fortean" on his behalf remain isolated and inexplicable without any theoretical structure to understand them. These encounters with things having no place in this world comprise Jerome Clark's experience anomalies.

The phenomenology of our anomalies continues to surprise and confuse us. In this realm there is always something new under the sun. Such variety keeps anomalistics an intriguing field of inquiry, but this same looseness clashes with basic scientific requirements and lands our subjects of interest on the wrong side of the scientific wall. The popular image of science as the steady accumulation of accurate knowledge about the natural world oversimplifies the

real workings of science almost to caricature. Thomas Kuhn in his famous book, The Structure of Scientific Revolutions, presents a very different picture: What scientists do most of the time is "normal science," a process of puzzle-solving guided by the accepted theories of a given field and destined to fill out the implications of those theories with findings and understandings that confirm predicted results. A ready example is the periodic table, which anticipated elements not yet discovered and scientists responded in their research by finding the unknown elements to fill those gaps. This body of accepted theories comprises a paradigm, in effect a total understanding that relates a great deal of data to a system of explanations. These explanations provide specific mechanisms that seem to underlie observable nature, simplify its diversity, and prescribe courses for fruitful future research. The paradigm of a scientific field stands as the best understanding of truth available at a given time and backed by a consensus of scientists engaged in the field.28

As convincing and unassailable as a paradigm might appear, it often proves to be transient. One of the great strengths of science is that its knowledge grows and changes in response to new discoveries and ideas. Sometimes the conflict between old ideas and new findings grows so irreconcilable that it overthrows an established paradigm in an intellectual revolution that restructures the very foundations of human understanding. The Copernican revolution replaced the Earth with the sun as the center of the celestial bodies, and while subsequent discoveries have continued to decentralize the Earth's place in the universe, the initial move that Copernicus proposed shows no sign of reverting. The heliocentric system seems here to stay. Few scientific paradigms last so long. The enormous success of Newton's mechanics determined the course of research for some 300 years but in that time as physicists and astronomers looked beyond the everyday world to events on atomic and cosmic scales, problems began to accumulate that Newton's formulation could not answer. These problems posed challenges that no patchwork fixes could allay and called for radical rethinking. The revolutionary theories of Einstein and quantum me-

²⁷ See "Dark Side" in Clark, UFO Encyclopedia, pp.301-317.

²⁸ Kuhn, Thomas S. The Structure of Scientific Revolutions (Chicago: University of Chicago Press, 1970), 10-11, 17-18, 24, 52-53, 65.

chanics settled the disarray with esoteric new understandings of issues that ranged from irregularities in the orbit of the planet Mercury to the relation between space and time. Over and over the pursuit of normal science under a given paradigm has led to the discovery of anomalies the paradigm cannot explain. As the anomalies accumulated a crisis gathered, business as usual could not continue, and only the top-to-bottom shakeup of a scientific revolution could institute a new paradigm that met the challenge of emergent facts and theories.²⁹

Given their crucial role in fomenting every scientific revolution, it seems only right that scientists would exalt anomalies as a valued part of the research enterprise. In fact just the opposite happens. The course of normal science has no place for anomalies and its practitioners have no use for them. They are annoyances and distractions, matters to distrust, ignore, or assimilate without taking their implications very seriously. The prevailing paradigm serves too well, its successes have been too many, and its followers have too much vested interest, practical, personal, and intellectual, in the status quo for them to spread out the welcome mat for any challenge. Taken one by one anomalies do nothing to slow the train of everyday research, much less stop it. Only when they pile up do they interfere with normal procedures and precipitate a crisis, but most scientific practitioners resist the implicated change with dogged stubbornness until the old paradigm suffers too much damage to save and a viable new paradigm stands ready to take its place.

Another example of the fate of anomalistic ideas within the scientific enterprise is "prematurity" in observational or theoretical discovery. The history of science is littered with instances of ideas now accepted as true but resisted or neglected for considerable time before gaining acceptance. A familiar example is the long dispute and delay over the issue of meteors, recognized by peasants and some scientists early in the 19th century as stones that fell from the sky, while high-ranking establishment scientists (and Thomas Jefferson) denied this proposal in favor of lightning striking stones on the ground. A premature discovery is one that "cannot be connected by a series

of simple logical steps to canonical knowledge of the time."³⁰ In terms of Kuhn's normal science, any observation or idea too far removed from the prevailing paradigm is doomed to rejection or disinterest, and any intellectual bridge from the known to the unknown will have to build step by exacting step to have any chance of acceptance, no leaps allowed.

A striking example of unequal treatments takes shape in the contrasting responses of the scientific community to exobiology and UFOs. The usual starting-point of science is observable data, but exobiology has none. No one has observed life on another planet, leaving exobiologists to postulate the nature of such life and methodologies for studying it, but the whole field remains an exercise in speculation. By contrast ufology is full of observational data, buried in it. Hypotheses and theories about UFOs address these observations in what is usually considered the proper order for understanding scientific subjects. Yet aside from the quibbles of a few purists, exobiology enjoys respect as a legitimate research pursuit and has ample publication outlets for the work of its practitioners, while ufology cannot get so much as a hearing. Exobiology follows directly from the accepted scientific premise that life should arise wherever conditions are suitable; UFOs violate an axiom that extraterrestrial life can't get here from there. Connection to the prevailing paradigm makes all the difference between acceptance as a scientific subject and rejection as unworthy of interest.

A picture emerges of modern science as extremely conservative. The scientist of fiction may pose as a free-wheeling explorer seeking out random surprises in the realms of the unknown, but this image contrasts as much with reality as the meticulous digging of real-life archaeologists differs from the tomb-robbing adventures of Indiana Jones. This conservatism manifests in a readiness to defend the paradigm at the expense of the anomaly even to the point of killing the messenger, as it were. Jacques Vallee presents a depressing example from 1961 while he worked as a satellite observer at the Paris Observatory and observed unidentified objects:

²⁹ Kuhn, 77-78, 84.

³⁰ Hook, Ernest B. "A Background to Prematurity and Resistance to 'Discovery," in Ernest B. Hook, ed. *Prematurity in Scientific Discovery* (Berkeley: University of California Press, 2002), 8.

I saw a satellite brighter than second magnitude. I had time to log a few data points. On another occasion several of us recorded no less than eleven points. The next morning Muller, who behaves like a petty Army officer, simply confiscated the tape and destroyed it, although a similar object had just been tracked by other astronomers.... "Why don't we send the data to the Americans?" I asked him. Muller just shrugged. "The Americans would laugh at us."³¹

So important is defense of the status quo that rejection of anomalies doubles as an obligatory act of saving face.

A modern scientist is more likely to question, "Can it happen, and if so, how?" than to ask did it happen, though this issue seems like the true bottom line. This approach reflects a confidence (some would say arrogance) that discounts random observation in favor of established knowledge. Such dismissal was not always the case. Cotton Mather sent reports of a star within the tips of the crescent moon to the Royal Society and the Philosophical Transactions duly printed the account.³² Throughout the 18th century and much of the 19th, persons with an interest in science or natural history felt duty-bound to report unusual events, and scientific journals to publish such reports, on the grounds that this anomalous data might lead to eventual understanding and discovery. As the scientific enterprise grew, as its theories crystallized, and as professionals replaced gifted amateurs, paradigmbased understanding fenced off scientific fields and excluded the previous free-ranging curiosity that found importance in anecdotal oddities of nature. These unheeded tidbits became the subjects of Charles Fort's collections. He gathered them out of suspicion that an overconfident scientific orthodoxy really didn't know it all any better than the priests and pontificating wise-men of the past, and championed such reports as factual challenges to the doctrines of established science:

A procession of the damned. By the damned, I mean the excluded. We shall have a procession of data that Science has excluded....The power that has said to all these things that they are damned, is Dogmatic Science. But they'll march.³³

J. Allen Hynek had confidence that UFOs were one anomaly that would eventually enter the scientific mainstream. He cited the history of meteors as an analogy for the stages of coming acceptance, and ended by observing that there would be a 21stcentury science and, for that matter, a 30th-century science, from which perspective the current denial of UFOs would look as embarrassing as the establishment denial of meteoric falls early in the 19th century.³⁴ This optimism overlooked the difference in treatment for anomalies experienced in the pursuit of normal science versus anomalies experienced outside the confines of scientific practice. The anomalies that scientists discover in the course of their work have ties to the prevailing paradigm, in the sense that they arise out of its working theories and bear directly on normal practice. A revolution may overthrow a paradigm, yet that paradigm reaches out from beyond the grave to control much about its replacement. These anomalies acquire their anomalousness only because they contradict the old paradigm, and the new one must embrace the successes and overcome the failures of its predecessor. The conservatism of science manifests itself since even a revolution that introduces radically new theories still bridges the differences with close steps of thought and evidence from old to new. A scientific revolution amounts to a palace coup rather than an uprising that turns the world upside down.

Where ufologists and other anomalists have pinned their hopes on some inevitable day of reckoning and insist that surely our time will come, the basis for this faith is tenuous at best. Our anomalies are not the pressing consequences of conflict between ongo-

³¹ Vallee, Jacques. Forbidden Science: Journals 1957-1969 (Berkeley, CA: North Atlantic Books, 1992), 41-42.

³² "An extract of several letters from Cotton Mather..." *Philosophical Transactions* 29 (1714), 66.

³³ Fort, Charles. The Books of Charles Fort (New York: Henry Holt and Company, 1941), 3.

³⁴ Hynek, J. Allen. "UFOs Merit Scientific Study." Science n.s., 164 (October 21, 1966), 329.

ing laboratory discoveries and prevailing paradigms. Our anomalies might be called of the "traditional" or "heritage" type, those mysteries that have puzzled mankind for a long time without making much headway as subjects for immediate scientific consideration. A quote about ghosts from Samuel Johnson sums up the perpetual state of traditional anomalies in general:

It is wonderful that five thousand years have now elapsed since the creation of the world, and still it is undecided whether or not there has ever been an instance of the spirit of any person appearing after death. All argument is against it; but all belief is for it.³⁵

More than two centuries have passed since Dr. Johnson's time and nothing has changed. Popular interest continues but expert opinion echoes stock conclusions and the subject attracts negligible scientific examination. Anomalies relevant to active scientific paradigms emerge, receive intensive attention as acute irritants, and provoke rapid change even in fundamental paradigms. These newcomers bypass traditional anomalies that continue to go begging at the gate. A broader paradigm covers the traditional types, a sort of basic rationalism that explains them away without needing to be overly specific or even rigorously rational, just adequate to justify setting them aside as not really important.

The prospect for any traditional anomaly becoming a subject of scientific interest looks dim. Fewnegligibly few-establishment scientists hasten to undertake such research, seek funding for it, teach it, publish it, or speak up in its defense as an intriguing possibility. As legitimate topics of science these subjects simply do not exist. Old prejudice and institutionalized habit can account for some of this disinterest, so can the structural constraints that confine research to normal science within accepted paradigms and exclude any possibility not linked by clear steps to sanctioned interests. When a scientist puts traditional anomalies in their perceived place, they belong on the outside, in or beyond the fringes of science and for the bemusement of laymen, but not a part of scientific business. Perhaps a more revealing name, given their status, would be "orphaned" or "exiled" anomalies.

As easy as it is to blame this rejection on hubris or hidebound conservatism, such ad hominem explanations provide more consolation than rightful understanding. Science is a human enterprise and subject to the shortcomings that humans bring to high-level, competitive work where egos and agendas get in the way of dispassionate reason. Science builds no pristine holy temple. Its drivers can be funding and career advancement rather than inherent interest or pure curiosity; it fails and takes wrong turns and violates its own standards. Some scientists even fake data and lie in their published papers, under the ongoing pressure to succeed and appear right. But science also cleans up its own mess, and its selfcorrecting qualities are one of its greatest assets. The pursuit of traditional anomalies may aspire to scientific credentials, in truth as well as in appearance, but most efforts languish at a rudimentary level if they progress even that far. A lot has been said and much done to promote the reality of certain anomalous claims and suppositional causes that underlie them, but much of this effort has produced, even in charitable terms, ineffective and often counterproductive results. Scientists may be guilty as charged of unfair rejection, but for explaining the low status of traditional anomalies, the accusing finger points back just as legitimately toward the anomalies themselves and their proponents.

A look at the public image of anomalies today shows a parade of phony psychics, TV shows exploiting dubious hauntings, and a man in a monkey suit pretending to be Bigfoot. Poltergeist manifestations may resolve into the tricks of a deceiving or selfdeceived teenager that nevertheless fool even wellintentioned investigators. Proponents often accept and advocate theories of astounding human powers or explicit alien motives with far more eagerness than they establish adequate evidence to support such claims, in violation of the basic rules of science and in a practice that bemuses outsiders as if they have overheard nonsense discussed in Neverland. Such antics may provide entertainment for the masses but the serious specialists these subjects need most to attract see only ample reason to run in the opposite direction.

Some of the worst offenders among both claimants and proponents flock to ufology. Charlatans, opportunists, and pathological liars compete to tell the

³⁵ (From Boswell's *Life of Samuel Johnson*) Quotes on Ghosts: the Samuel Johnson Sound Bite Page. http://www.samueljohnson.com/ghosts.html.

most exciting tale then lead their following as far astray as the leash of human credibility will stretch without snapping. Whether the lure has been contactee yarns, exotic conspiracy theories, or alleged "inside scoops," UFO adherents have demonstrated the remarkable elasticity of their credulity time and again. Ufology draws enthusiastic and committed followers, but much of this energy drives the field in the wrong direction. Ufological discourse rings with the tinny noise of loud but insubstantial claims. Even an honest proponent often seizes on any claim that confirms his or her beliefs and rebuffs any truth that contradicts them—the reaction against the Phoenix flares being but one example. Some of the most visible proponents of UFOs tarnish the reputation of their field by asserting too much and proving too little, with the result that no one with a critical mind would want to join this club.

Though anomalies suffer by the company they keep, inherent shortcomings undercut their scientific credibility in even more harmful ways. A hard-tostudy, hard-to-believe characteristic of traditional anomalies is their double-sided nature. Sometimes they seem purely physical, like the UFO that appears on radar and in front of multiple witnesses, or the psi phenomena tested in laboratory experiments. At other times anomalies appear thoroughly strange, completely outside the scope of rational understanding, as when UFOs behave like immaterial objects or objects fly about a room during a poltergeist haunting. To further confound the situation, an anomaly may not appear as either the event kind or as the experience kind; rather it often manifests as both at the same time. In practical terms the same anomaly presents a spectrum of phenomena from one occurrence to another, and even during the course of a single manifestation. Equally trustworthy witness accounts support both descriptions. The scientist who can grasp the physical side will likely shun the extranormal elements as entirely outside the bounds of possibility even when the physical and the strange seem an inseparable part of the same package. The strangeness also reflects badly on the more accessible phenomena and raises suspicions that something is wrong with the whole package. The reasonable course for a sensible scientist, then, is to blame the mercurial accounts on mistaken or dishonest witnesses and drop the entire mess.

An even stronger motivation to avoid entanglement is an engrained sense that the case for traditional anomalies is embarrassingly weak. Much of the evidence is anecdotal, questionable, or contradictory. These anomalies tend to manifest in natural settings at haphazard intervals and so rarely that they are often once-in-a-lifetime occurrences. Such appearances do not lend themselves well to laboratory dissection, instrumental examination, or recurrence and predictability. Researchers have little or no control over the phenomenon and have to work according to its schedule, to grab glimpses of fleeting and unexpected events as best they can. More often the researcher observes nothing and has to work with secondhand data from less-than-ideal sources. A defender of the reality of these phenomena seldom possesses evidence robust enough to stand on its own, but instead resorts to a sort of special pleading that mainstream scientists would not tolerate for any other subject. Hynek spoke of the UFO phenomenon as "elusive," while the lab work that ESP experiments make possible produces only occasional results and marginally significant statistical positives. The stories of anomalous events are often vivid and striking but the scientific substance is invariably underwhelming, difficult or impossible to verify or duplicate and not of a type to weigh and measure or to demonstrate in the classroom. Scientists want convincing evidence that anomalies are worthy of their attention before they invest time and energy on such claims. What the anomalist offers is disappointment, a case that lacks the force to change the rigorous and doubting minds of busy scientists. They expect the anomalist to bring them proof, while the anomalist wants the scientists to discover the real phenomenon underlying the anecdotal evidence—and so the circle goes round and round to arrive nowhere.

Another strike against traditional anomalies comes from some ready conventional escapes available to the doubter. Folklorists have a cultural model to explain extranormal encounters—prior exposure to folk narratives predisposes an individual to associ-

ate, for example, ghosts with graveyards. Once in that situation a triggering event, like a beam of moonlight on a wisp of fog, leads the witness to imagine a ghost while the resulting fear stamps an emotional verisimilitude on the experience. The witness shapes a story based on cultural patterns and confirms the traditional belief by describing another incident of the expected type.³⁶ Psychologists have a battery of explanations for seemingly strange events, like confabulation and false memories to account for alienabduction experiences.³⁷ An organized skeptical movement attacks efforts to promote traditional anomalies, the foolish and the scholarly alike, as examples of pseudoscience misleading the public. As their criticism of UFO cases has shown, the skeptics have honed their skills over the years and their explanations offer a plausible means to empty the strangeness out of the anomaly and return it to line as just another conventional occurrence. Besides exploding prominent UFO cases, writers for Skeptical Inquirer routinely discredit psychics, find fault with ESP experiments, and offer plausible explanations for the creatures of cryptozoology, most recently identifying many sightings of sasquatch/Bigfoot as the result of witnesses seeing a bear on its hind legs.³⁸ Scientists seldom need to break their intellectual stride to account for traditional anomalies because these readymade explanations do the job for them. The answers match scientists' own predispositions and sound plausible; and even if one answer proves wrong, as in the Exeter case, the skeptics score more hits than misses and pile up a record of successes to reinforce the belief that all the answers to traditional anomalies have already been written, with no mysteries left over to obligate further attention.

The laboratory scientist finds traditional anomalies uncongenial because they are rare and unexpected occurrences in the real world, where variables multiply beyond control and much can happen outside the researcher's expertise. Even the wisest experts within their own fields can become babes in the woods when confronted with the complexities of real-

ity. One classic example is the case of Clever Hans, the horse with the ability to add. His owner honestly thought the horse could tap out the sums and other witnesses agreed, until the right investigator understood that not arithmetical ability but the unconscious nodding of the owner guided Hans to the right answers. In other instances a psychic may have abilities that baffle the researcher but prove transparent to a professional magician. One cautionary example of how labyrinthine a real-world investigation can become concerns the advanced scientific knowledge of the star Sirius supposedly held by the Dogon people of western Africa. Marcel Griaule, a respected anthropologist, studied the Dogon for many years and learned that their traditional mythology attributed a heavy companion star to Sirius, even though Western astronomers did not discover this companion till the 19th century, or understand that it was a dense dwarf star until still later. Here seemed to be the perfect smoking gun for ancient-astronaut contact, and Griaule's findings appeared as such in the UFO literature. The reality turned out to be far less clear-cut. No other anthropologist could confirm Griaule's findings, and a probable explanation emerged that Griaule became friendly with his main informant and shared newspaper reports about astronomers' knowledge of Sirius with him. This informant internalized the new information and returned it to the anthropologist as part of traditional lore. A new myth supplemented the old and Griaule jumped to the conclusion that this knowledge originated in the distant past rather than through his own conversations. In the give and take of two friends talking the anthropologist stepped out of his shell of scientific reserve and contaminated his findings unawares. On this error another proof of ancient astronauts lived and died.³⁹

Almost everything scientists see and hear about traditional anomalies, and certainly the most reliedupon sources, tell the same story: These anomalies are not reputable; in fact they are not even factual. A congenial belief becomes received wisdom after enough repetitions, so that scientists now take for

³⁶ Honko, Lauri. "Memorates and the Study of Folk Belief." Journal of the Folklore Institute 1 (1969), 5-19.

³⁷ See Steven Jay Lynn et al., "Rendering the Implausible Plausible: Narrative Construction, Suggestion, and Memory." Joseph de Rivera and Theodore R. Sarbin, eds. *Believed-In Imaginings: The Narrative Construction of Reality* (Washington, DC: American Psychological Association, 1998), 123-143.

³⁸ Nickell, Joe. "Bigfoot Lookalikes: Tracking Hairy Man-Beasts." Skeptical Inquirer 37/5 (Sept.-Oct. 2013), 12-15.

³⁹ Temple, Robert K. G. *The Sirius Mystery* (New York: St. Martin's Press, 1976); Walter E. A. van Beek, "Dogon Restudied." *Current Anthro-pology* 12 (1992), 139-158.

granted that anomalies lack basic credibility without even needing to investigate the issue. Long and deep familiarity with anomalous subjects may reveal the possibility of something genuinely puzzling, but only to those of us who have invested the effort to find it, and who are willing to accept the degree of uncertainty inherent in anecdotal evidence. For the scientist used to black and white and suspicious of any shade of gray, the disreputable proponents, weak evidence, impossible strangeness, and alternative explanations for anomalistic claims answer enough questions to close the book on these mysteries. Perhaps scientists need a step of faith to accept their truths, but anomalists need, if not a leap, at least a broader stretch; and the odds of hard reasoning favor the smaller commitment of faith to the larger.

Can traditional anomalies find a future within scientific inquiry? A negative answer seems hard to avoid, yet at the same time, where else is there to go? Philosophy, theology, or humanistic scholarship answers some questions but mainly about metaphysics or means of human thought and representation. Psychology and sociology address human participation in anomalies but largely in reductive ways that stress individual and collective behavior yet say nothing about the anomaly itself. Some explanations for anomalistic phenomena may rely on unconventional mental processes, but answers of this sort still bring the question back to the anomaly as phenomenon. The anomalist starts with a basic tenet that a phenomenon exists and wants to know what causes it. The phenomenon may not be materialistic but we expect a good substitute, something unknown and remarkable unto itself and not just some variant of garden-variety physical or mental activity. I think most of us expect traditional anomalies to have an independent reality of their own, as matter, energy, extraordinary manifestation of mind, or some as-yet unrecognized but equally significant facet of the experiential world. The anomalist cannot rest until that belief or hypothesis achieves its proof, but that proof requires the imprimatur of science, the most successful by far of all of humankind's means for understanding the natural world.

This situation leaves anomalists mired in a dilemma: We need science to make any headway toward removing traditional anomalies from longstanding tradition and popular belief into acceptance and high-powered investigation. At the same time science is dead set against these anomalies, for reasons that range from prejudicial misunderstanding to sound rational judgment. No end of this stalemate seems anywhere in sight. At a very minimum we need a scientific study of anomalies to weed out unusual conventional events, mistaken identities, and hoaxes so that we can escape the confusion of false leads and distinguish the core anomalous phenomena, if any exist. Then the real study process can begin, but science will not oblige except to issue blanket denials, and we should entertain no illusions that any event or change of heart is likely to end the current stagnation. Anomalists are left pretty much on their own to eke out what little research they can manage, most of it on their own time and resources, with little hope for breakthroughs, rewards, respect, or even tolerance. The picture is bleak; yet it is not entirely gloomy.

One point we need to remember and emphasize: Human experiential testimony is not worthless. Over the years meteors or space-junk reentries have inspired lurid tales of spaceships with lighted windows flying at treetop level, and skeptics have jumped on these examples as proof positive that eyewitnesses are unreliable. These examples warn of a real problem. Witness reports are often full of misperceptions, errors, and distortions; subject to social, media, and cultural influences; prone to rethinking and reshaping to satisfy social expectations and personal desires. Human observation, memory, and description are fallible instruments for conveying the truth about an event, and the extreme examples of error can be truly extreme. Yet those same reentry cases so popular with the skeptics actually show a surprisingly positive image of witness capabilities when taken as a whole. The Air Force received 78 reports of the Zond-IV space probe reentry in 1968. Most informants gave accurate descriptions of the event, and when distortions crept in they were usually minor and predictable, like the misuse of the term "formation" for the lights, or inaccurate estimates of distance and speed. Only a few witnesses submitted extreme accounts that bore little resemblance to the actual stimulus of several burning lights a hundred miles high over the earth. The observers who adhered to the truth or committed minor deviations far outnumbered the small minority that turned a conventional event into a spectacular "UFO" sighting.⁴⁰

A striking example of witness fidelity to truth appears in the chronicle of John of Worcester for a February night in 1130 or 1131 A.D. A little after midnight two priests and two clerks were leaving church when they saw a bright light.

The object from which the bright light came was covered with a white cloud. For short periods it would emerge from the cloud as though it was moving upwards, and then after a short interval it would reenter the cloud to the fear and amazement of the observers. Its colour was a blend of those of a full moon and of bright flames. In shape and size it was like a small pyramid, broad at the bottom and narrow at the top. The witnesses...declared that a fairly small plank, stretching upwards a longway was seen to stand on the cloud in which the brilliant object had been....

Other people arrived in response to the outcries of the witnesses but saw only the fading remnants. The writer heard from a number of other witnesses to this event.⁴¹

A large meteor, generating its own cloud as it disintegrates or alternately lighting and being hidden behind broken ordinary clouds, creates just such a sight as the chronicler describes. His medieval world-view contained no modern concept of meteors and provided him with no ready vocabulary to draw on, yet he detailed the observation with such accuracy that the modern reader recognizes the object for what it was. The text is plain and spare, devoid of beliefs and interpretations. Some of the description is clumsy in its struggle to convey an unfamiliar and amazing sight, but what stands out is how factual the account reads. Here and in other examples a witness

confronted with spectacular and strange events drops all attempts to force the observation into a prefigured belief or theory. The strangest sights seem most likely to "clear the mind wonderfully" of preconceptions and compel a careful, factual account.

David Hufford has led an effort to appreciate the value of experiential accounts through his advocacy of an experience-centered approach to their study. In The Terror That Comes in the Night (1982) he builds a convincing case that not all extranormal experiences originate in a culture-mediated misinterpretation of conventional events. His research on the Old Hag experience in Newfoundland and other cases of supernatural assault around the world demonstrates that the phenomenology of Mara attack, the sense of paralysis and suffocation by a malevolent entity, is universal and not attributable to ideas gleaned from tradition. A genuine experience gave rise to the tradition, rather than the other way around. The most likely basis is sleep paralysis accompanied by hallucination, but while local traditions interpret the experience, the genesis of many phenomenological particulars remains uncertain. 42 A considerable literature has followed Hufford's pioneering work in tracing traditions to experiential foundations. For instance some monsters of mythology may owe their origin to ancient peoples discovering fossil skeletons, while religious traditions of visits to heaven echo the descriptions of near-death experiences. Experiences of sleep paralysis and Mara attack appear to inform some, perhaps many cases of UFO abduction.⁴³

An experience-centered approach offers a valuable foundation for the methodology to explore traditional anomalies. The success of the approach further affirms that witness testimony can provide reliable data for study. At least we have a starting-place, but where do we go from here? Solitude and isolation inside or outside of the academic community limits the chances an anomalist has for making any pro-

⁴⁰ Hartmann, William K. "Processes of Perception, Conception, and Reporting," in Condon, *Scientific Study of Unidentified Flying Objects*, 571-577; Donald H. Menzel. "UFOs—The Modern Myth," in *UFOs: A Scientific Debate*, ed. Carl Sagan and Thornton Page (Ithaca, NY: Cornell University Press, 1972), 155-156.

⁴¹ Chronicle of John of Worcester. Transl. P. McGurk (Oxford: Clarendon Press, 1998), 199.

⁴² Hufford, David J. *The Terror That Comes in the Night* (Philadelphia: University of Pennsylvania Press, 1982), x, xvi-xix, 1-11, 15, 25, 48-53, 248-249.

⁴³ Mayor, Adrienne. The First Fossil Hunters: Paleontology in Greek and Roman Times (Princeton, NJ: Princeton University Press, 2000); Gregory Shushan. Conceptions of the Afterlife in Early Civilizations: Universalism, Constructivism and Near-Death Experience (New York: Continuum International, 2009); Susan A. Clancy. Abducted: How People Come to Believe They Were Kidnapped by Aliens (Cambridge, MA: Harvard University Press, 2005), 35-36.

gress. The opportunity to share findings, discuss ideas, and participate in a communal effort provides the sort of nurturing environment essential for success and long-term engagement in any field of study; otherwise effort and interest are pretty likely to wither and die.

No institutional berths will open up for anomalists, but another possibility is to establish a separate, parallel scientific discipline with the high standards of recognized science but without its inhospitable negativity. Allen Hynek and Jacques Vallee proposed the creation of an "invisible college" in the wake of the Condon Committee fiasco of the late 1960s. This government-funded investigation of UFOs at the University of Colorado raised high hopes for a fair and objective study but collapsed as the leadership ignored evidence to arrive at a preordained conclusion. Ufologists were left to pick up the pieces, but the idea of establishing a network of able and interested individuals to carry out quality research offered a new hope to fulfill the promise that the Condon study betrayed. The outcome was disappointing on the whole, but the plan remains a good one and even now not all is lost. The National Aviation Reporting Center on Anomalous Phenomena (NARCAP) exemplifies an oasis of excellence amid the desert of mediocrity and scientific mirages that surround current ufology. NARCAP brings together associates with extensive expertise to study hard data and restrict their conclusions to the available evidence, without any commitment to an explanatory agenda.44 This organization establishes a model that could benefit the study of any anomaly.

Recruiting participants might not be the mission impossible it appears at first glance. In my own experience I have found over the years that a surprising number of academic faculty members have a personal UFO story to tell. I heard those stories because they knew of my interest; otherwise they had seldom confided these experiences to anyone. Such experiences remain compartmentalized and hidden, but might motivate active participation given a safe and friendly outlet to peers with similar interests. My small sample of academics with anomalous experiences may extrapolate into significant numbers if all such secrets come into the open, and suggests a latent curiosity that may recruit the staff for an invisible

college some day. Most of these academics have not been scientists but anomalies still attract even high-profile scientists. The stellar roster of the Society for Psychical Research will not likely repeat itself, while Hynek's position as the Blue Book consultant on UFOs during the 1950s and 1960s was unique. Yet Harvard psychiatrist John Mack took an intensive interest in abductions, and Kary Mullis, who won the Nobel Prize in 1993 for inventing the polymerase chain reaction process, has gone public about having an abduction-like experience of his own:

Some people have experiences that are so strange, they attribute them to alien intervention of some kind.... I had one of those experiences myself. To say it was alien is to assume a lot. But to say it was weird is to understate it. It was extraordinarily weird.... I wouldn't try to publish a scientific paper about these things because I can't do any experiments.... It's what science calls anecdotal, because it only happened in a way that you can't reproduce. But it happened.⁴⁵

He did not accept the alien interpretation but his statements about the factuality of the experience and the inability of conventional science to address it ring true for the anomaly experience in general.

Accepting the possibility of an invisible college, some desirable contributions from its members come to mind. If the anomalist must work with anecdotal testimony as primary data, that testimony needs to be of the highest possible quality. The witness of an anomaly is most likely to be a layman with no special training as an observer but perhaps a great deal to say in terms of cultural interpretations and beliefs. Much trouble often results from this mixture. The accurate reports will likely mingle with the distorted ones, and one of the great dangers in collecting anomaly reports is a selection bias that favors the collector's expectations. A ufologist takes an interest only when observers categorize an object in the sky as a UFO, or allow the ufologist to interpret the object in those terms. This bias can lead to a concentration of distorted cases in the file to the exclusion of more conventional descriptions; so for example, hearing only the extreme "UFO" reports from the Zond re-

^{44 (}NARCAP website) www.narcap.org.

⁴⁵ Mullis, Kary. Dancing Naked in the Mind Field (New York: Vintage Books, 1998), 131, 136.

entry gives a very different—and very wrong—impression than the more accurate reports. A lack of training handicaps many UFO investigators and leads them into errors. Basic forensic skills would improve interviews with witnesses and guarantee the gathering of necessary basic data. An anthropologist's training in ethnographic fieldwork would prepare the investigator to gather a thorough account but also to be aware of the cultural background and recognize the narrator's personal slant in relating the events.

A further need is awareness of the mythology surrounding anomalies. UFOs fly in an especially dense matrix of beliefs, assumptions, and suppositions that influence observation, conception, interpretation, communication, and reception. In short, eyewitness testimony passes through too many prisms of cultural expectation to ever allow a direct view of the event, with even more distorting twists and turns to follow as the report passes from person to person. How the witness understands the event is a matter valuable in its own right, but investigators familiar with the concepts, explanatory traditions, and stylized vocabulary used to speak of the subject possess some insight to distinguish cultural elements imposed on the phenomenon and separate them from the properties of the phenomenon itself.

The college would benefit if its scope expanded to include the greatest possible breadth and depth of expertise. As the earlier examples demonstrated, the answer to a problem often hinges on one individual whose knowledge serves as the key that fits where all others fail. A real-world problem in all its prickly complexity demands a maximum variety of approaches, perspectives, and insights. We anomalists may not like those experts or agree with their conclusions, but we need to swallow our pride and invite their help. They may have, or have access to, the very expertise that can solve a problem that baffles the rest of us.

Beyond these few rather obvious preliminaries must follow a meaningful research program if the field of "anomalistics" is to make any progress. This research may fare better on the "field science" model rather than the "laboratory science" model, given that data-gathering for anomalies is opportunistic, but at least the study of anomalies within a conventional framework would not have to be the complete abandonment of scientific integrity that some critics

would undoubtedly brand it. The means and methods and goals of such studies go beyond the scope of this paper, and I have already wandered too far. All I mean to suggest is a scientific future for research on traditional anomalies stands a fighting chance, if enough people have the interest and the organization to give it a chance.

This discussion has so far skirted the deepest problems posed by the experience anomaly. Its highstrangeness aspect is the least congenial to conventional science yet the essence of interest for anomalists. The puzzlement this strangeness begets, how far removed it seems from conventional phenomena, raises questions of whether science with its materialistic and Cartesian bias can provide meaningful answers to manifestations that may transcend accepted physics or understandings of mind. Quite a few investigators have agreed and turned off the scientific road onto unconventional paths. John Mack accepted that UFO abductions were physical events but paid limited attention to that aspect of the experience. He focused his interest on the messages that abductees reported, messages of peace, environmental concern, and a possible future apocalypse that Mack, like Jung, interpreted as a transformational signal redirecting human materialism toward a new age of harmony for man, nature, and whatever Other the aliens represented.⁴⁶

In this case the scientist ufologists got was not the scientist they wanted. Their interests in machinery and spacemen were disappointed by Mack's turn toward "mysticism," but he was not the first or the only thinker in this vein. UFOs have inspired many considerations that the purpose or earthly effect of the phenomenon has more importance than the nature of the phenomenon itself. Jacques Vallee speculated that some unknown intelligence—extraterrestrial, chthonic, inter-dimensional—or perhaps some mindless power, presented anomalous visions as a kind of cosmic thermostat to regulate the course of human development. John Keel introduced ultraterrestrials existing on different wavelengths from the everyday world but able to modulate in and out of this world for motives that appeared primarily demonic, and methods that alternately lured and frightened off, led to wisdom or drove to madness the people with whom these entities interacted. Others have noted the relation between abductions and shamanic initiations and proposed that abductions serve to "shaman-

⁴⁶ Bullard, The Myth and Mystery of UFOs, 48, 179, 214.

ize" the planet. Whether the instigator is outside or inside our minds, the process initiates growing numbers of people to new patterns of thought and promises to correct the destructive tendencies of humanity worldwide.⁴⁷

An approach that overleaps the physical mystery to address its meaning re-centers the inquiry on the human condition. Perhaps more people find that issue compelling than where aliens come from, what they want, and how they conspire with the government, matters that so preoccupy materialistic ufologists. Another objection argues that UFOs can't really be a scientific issue because science has already concluded that aliens have no possibility of traveling here over interstellar distances, and UFOs as space vehicles work only in a science-fiction realm where the hard facts of physics do not apply. UFOs have a reality or at least an effect, but since they lie fundamentally outside of science, the argument implies, only some alternative approach can study them.

I will not belittle efforts to find meanings in anomalistic events, or the argument that UFOs make poor sense as alien vehicles, but I think both approaches suffer from similar faults. Both impose an ornate structure of suppositions onto limited and selective evidence. When meanings matter foremost, the goal is to develop a system of thoughts and symbols that associate as many facts and ideas as possible, while the initial stimulus gets left behind as a lowly pretext. The anomaly consequently provides little support to the system but no matter—the system counts because it offers solutions for human problems and comes to stand on its own, a thing to discuss and dispute with little reference to the aliens who supposedly introduced the message. The witchcraft theory of disease succeeds because it draws together many seemingly unrelated observations and suspicions, explains everything in a coherent system, and provides a plan of action to solve genuine problems—stop the witch, stop the sickness. What works in social and psychological terms does not, in this case, work in natural terms where infectious microorganisms are the cause. Systems of meaning become an exercise in magical thinking, coherent and rich with answers, but self-referencing and largely cut off from factual roots that may differ markedly from the accepted terms of the system. The same can be said for searching out parallel phenomena like fairies, demons, and apparitions, then unifying them with UFOs to conclude that some yet larger mystery encompasses all things strange. This unified-field theory may be correct. It solves some problems and should not be dismissed out of hand, but the same structural flaw besets it. Its solution for one mystery becomes other mysteries drawn into a system of meanings where one part confirms another, but no outside evidence confirms the parts. Such speculative theories move the discussion sideways, not upward.

The argument against treating an anomaly scientifically because it manifests unscientific properties confuses the phenomenon with its interpretation. In the case of UFOs almost everyone understands them as alien spaceships. This meaning seems right, but it imposes a mythology onto the phenomenon that is not inevitably true. An attack on UFOs as unscientific is really an objection to the extraterrestrial hypothesis and says nothing about the phenomenon. Much of the discourse about UFOs, whether from the materialists or the mystics, the scientific hawks or the antiscience doves, takes place within the framework of an explanatory system that grows, controls the course of much debate, and often exceeds its evidential basis. All too often one speculation builds on another and beliefs have no more support than other beliefs, in a process that truly steers the subject into unscientific territory; but the fault does not necessarily belong to the phenomenon. The example of ufology should serve as a cautionary tale against too much meaning derived from too little fact, and a warning that in theory-making it is better not to pick a winner too soon.

Jerome Clark has said that unless we find radically new ways to study anomalies, we will continue to spin our wheels for decades to come as we have for decades past. To that thought I nod a solemn "amen." The study of anomalies has to contend with many obstacles imposed from without, but much of the trouble comes from within, and a reformed approach may overcome some of the self-defeating practices of the field:

We need to make a right beginning. It requires the establishment of a sound footing that distinguishes between phenomenon and explanation, and one that emphasizes learning the facts before becoming preoccupied with explanations, theories, and meanings. At least part of the anomaly problem is physical in appearance and amenable to conventional scientific investigation. In any case establishing the

⁴⁷ Bullard, 48.

existence of a phenomenon has to come first, and here is where science enters as a necessary preliminary to understanding. Most UFOs turn out to be conventional phenomena, and it is a safe bet that most anomalous occurrences will turn out to be mistaken identities, unusual conventional events, or results of aberrant thoughts or behavior. Clear away what astronomers, psychologists, and the rest can explain in conventional terms and a purified sample will remain, the true nuggets of gold separated from the heaps of slag. This sample offers the clearest chance to discern repetitions and patterns that might provide solid clues to an underlying phenomenon—and incidentally, provoke curiosity among people otherwise inclined to dismiss the subject.

Even the high-strangeness cases often mix both physical and paraphysical properties. As long as the anomaly offers something to observe, something for instruments to detect and analyze, it can be a scientific problem and we have a chance to learn about the phenomenon, no matter if the manifestation comes from a parallel universe or outer space, or whether the entities arrive to save mankind or just to empty the trash. Even where strangeness passes beyond accepted norms the means and methods of science still have value—after all, science has chased invisible particles like atoms and "ghost" particles like neutrons and neutrinos with success. Where there's a will, the means often follow. The will to study may be lacking, but the chance to learn about an anomaly through scientific observation is at least a possibility, and the most likely hope for progress. The advantage of scientific findings is that they count as universal currency, widely accepted except when Congress meets climate change, or among a few romantics and mystics whose heads are not made for these times. But without a scientific foundation the explanatory discourse about anomalies remains a belief system that wins converts because the advocate is eloquent or the ideas hold emotional appeal or some other such questionable reason. As St. Paul wrote to the Hebrews (11:1), "Now faith is the substance of things hoped for, the evidence of things not seen." True enough in religion, perhaps, but the truth we search for in anomalies demands fidelity to their observational foundation, to a scientific approach and not to hope or faith.

Of course most discoveries that suggest prematurity or could lead to revolution never fulfill that promise. They are simply wrong—remember cold fusion? This fact points to a personal danger in adhering to the ideals of scientific inquiry, a risk of losing something we hold dear. Those ideals oblige the practitioner to follow the evidence, and if necessary, to surrender even the most cherished belief if the evidence fails to support it. This eventuality is especially hard on a human level. We have all devoted time and energy, invested thought and labor, even staked reputation and pride in the pursuit of anomalous phenomena. Was it all a waste of time, a fool's errand? We have to allow that possibility; and for that reason, I feel a frosty chill whenever a skeptic solves a favorite UFO case. I still believe that there's something to this anomaly business, and still keep a list of UFO cases that seem like inexplicable examples of an unknown phenomenon; but I am also mindful that a year ago, Exeter would have been on that list.

A final thought of encouragement worth remembering: If a genuine anomalous phenomenon hides within the masses of reports, that truth cannot hide forever. If the anomaly is real, some cases will resist conventional solution because they have no conventional solution. The truth will come out in time as long as efforts persist to find it. Even if our role is no more than to serve as curators of Charles Fort's damned, at least the anomalies will not be forgotten. If they all turn out to be mirages, they will still serve the scholarly needs of historians, psychologists, sociologists, folklorists, religion scholars, and practitioners of just about every other "ology" in academia, if only to map the errors and oddities of human belief through the ages.

But the universe would be a dull place if we already knew it from corner to corner and had nothing new to find. I'll still bet the lunch money that we have only begun to be amazed, and anomalous experiences vouchsafe us a glimpse of wonders to come.

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A Phenomenological Evolution of Parapsychology's Philosophy of Science

Jacob W. Glazier



Abstract

Parapsychology claims to be a scientific discipline. How has it adjudicated this claim? This article traces parapsychology's understanding of its scientific practice beginning with William James, continuing through J. B. Rhine, and up until the present day. What this reveals is that Rhinean experimentalism has been insufficient to legitimize parapsychology as a widely established science. What's more astonishing is that experimentalism's philosophical assumptions may actually be incoherent with the nature of psi phenomena. Returning to an approach similar to that as articulated by William James, parapsychology can realign itself with a human method of science as found in phenomenology. Flowing from this analysis, future directions are offered for parapsychology as it relates to using its philosophy of science as a commentary on legendary science and further exploring the tricky nature of psi.

A Phenomenological Evolution of Parapsychology's Philosophy of Science

What is this discipline called parapsychology? There seems to be something unique about parapsychology that sets it apart from other subjects that study strange experiences. Mythology, literature, and art each, in their own way, delve into the mysterious and occult. Yet, parapsychological scholars and researchers typically ascribe some special power to their method. Why?

Largely, since J. B. Rhine, parapsychologists have attributed adherence to the scientific method as paramount to the discipline's unique access to the truth about these phenomena. Is this the case? Has parapsychological science bared this out? This article is an attempt to explore this question. I trace parapsychology's scientific development from William James, to J. B. Rhine's experimentalism, and up through the present day. I argue that the nature of its scientific practice has long been misunderstood by Rhinean parapsychology as apropos for the domain of its phenomena. As a result, I propose that phenomenology can help parapsychology better explicate and integrate its philosophical assumptions while helping it to align itself with the study of human experience.

Setting the Stage

The idea that science, as a value free enterprise, will eventually culminate in a complete picture of the world has long been shown to be problematic in the phenomenological tradition (Husserl, 1954/1970; Heidegger, 1927/1996; Merleau-Ponty, 1947; Giorgi, 1976). All varieties of scientific research contain specific epistemological, methodological, and ontological assumptions, many of which often remain implicit or ignored (Chalmers, 1999). Braude (1986), a trained philosopher and scholar in parapsychology, laments on "how scientists tend either purposely to ignore the conceptual foundations of their theories, or else display no awareness that they are implicitly philosophizing (sometimes quite badly) each time they theorize" (p.220). Braude's point is well taken in that the vast number of scientists within any given discipline operate under the auspices of often poorly articulated philosophical suppositions.

As a science, parapsychology also contains certain axiomatic assumptions about the way in which it conducts its practice and research. The so-called fringe phenomena it studies fall under categories that include extrasensory perception, psychokinesis, and survival after death (Irwin & Watt, 2007). Often used by the discipline to make sense of these paranormal experiences is the notion of *psi*. According to Irwin and Watt (2007), psi is used "to denote the unknown

paranormal element in these experiences in much the same way as the letter x represents the unknown in an algebraic equation until its identity is determined" (p. 6). Bem and Honorton (1994) state that "[psi] neither implies that such anomalous phenomena are paranormal nor connotes anything about their underlying mechanism" (p. 4).

The methodologies used to investigate anomalous experiences and psi have varied since parapsychology's inception (Beloff, 1993). Braude (1986) states that psi research can be divided into three broad classifications: experimental, semi-experimental, and anecdotal with experimentalism claiming hegemony since J. B Rhine's attempt to align the discipline with natural science methodologies in the 1930's. However, prior to the Rhinean revolution, beginning around 1896 in the time of William James, parapsychology tended to be more semi-experimental and anecdotal (Beloff, 1993).

Early Roots and William James

VanOver (1972) divided early psychical research (pre-1930's) as taking place representatively among 7 scholars: William James, F. C. S. Schiller, Carl G. Jung, Sigmund Freud, William McDougall, and Helene Detsch. This time period (approximately between 1885-1926) Vanover (1972) characterized as the "Early Roots" of psychical research. The desire for a science in this early period is evident in the work of Charles Richet who, in the preface to his monograph Thirty Years of Psychical Research, writes "I have endeavoured to write on science, not on dreams; and I have therefore confined myself to a statement of facts and discussion of their actuality" (Richet, 1923, p. vii). This demonstrates that Richet was interested in investigating ostensible paranormality via an objective and systematic approach.

Richet's (1923) work is an important precursor to the establishment of parapsychology by Rhine as an experimentalist science. While institutions that supported psychical research emerged, such as the Society for Psychical Research founded in 1882 (Weaver, n.d.) and the American Society for Psychical Research founded in 1885 (ASPR, n.d.), the profession still remained prescientific during this early era with scattered methodologies, where there was no commonly accepted research paradigm under which to conduct normal science (Kuhn, 1970).

James perhaps best represents this period of psychical research insofar as he is the foundational

scholar of American psychology and psychological methodology. One of James's best known forays in psychical research involved the trance medium Leonora Piper who established, James believed, "beyond reasonable doubt the existence of telepathy and other forms of paranormal knowledge that could not be explained in conventional materialist terms" (Kelly & Kelly, 2012, p. 27). It was James's hope that this would help demonstrate the failings of materialist and physicalist science to provide an exhaustive picture of nature and the human mind.

Contradistinctive to physicalist perspective, James's conception of the scientific project sought to incorporate the personal point of view in methodology (as cited in Wertz et al., 2011). Psychological research, for James, must respect the nuances in meanings that are felt in the lived experience of the individual. Notice how the following description given by James sought to understand subjective experience in a very full and rich sense:

...the terror and beauty of phenomena, the "promise" of the dawn and of the rainbow, the "voice" of the thunder, the "gentleness" of the summer rain, the "sublimity" of the stars, and not the physical laws which these things follow... [A]s soon as we deal with private and personal phenomena as such, we deal with realities in the completest sense of the term... the world of experience. (as cited in Wertz et al., 2011, p. 25)

James, on the one hand, made a distinction between the study of the natural world and the study of psychological life. On the other hand, he also pointed to the qualia (e.g., promise, voice, gentless, sublimity) of the phenomena and brings to the fore what David Chalmers (1995) would later call the 'hard problem' of consciousness. That is, qualia (i.e., the irreducible experience of phenomena) are unique to any given organism and, thus, we can never know what it is like to be something else (Nagel, 1974). As a result, James and phenomenology take the qualia as the starting point of their analyses.

Physicalism and Experimentalism

This privileging of qualia by James demonstrates that he - a preeminent founding member of psychical research - was not a physicalist. Physicalism (or metaphysical naturalism) makes the claim that physical properties are all that exist (ontological monism), and adopts the epistemology of the natural sciences (e.g., physics); even emergent physicalist theories, whereby consciousness arises as an epiphenomenon, still take as their ontological ground materiality (Velmans, 2009). As Kelly and Kelly (2012) argue, one of the unquestionable axioms for physicalism is:

...that everything in the human mind and consciousness must be generated by, or supervenient upon, or in some mysterious fashion identical with, neurophysiological processes occurring in brains. Ordinary perceptual experiences are presumed to arise through the central processing of identifiable physical stimuli impinging upon our various sensory surfaces, and no other forms of contact with the environment—in particular with any portions of the environment that are remote in space and/or time—are believed possible. (Kelly & Kelly, 2012, p. 27)

The view of physicalism as described above and the nature of paranormal phenomena are in many ways antithetical. That is, paranormal phenomena *sine qua non* lie outside of a naturalistic worldview. They have, after all, been described as anomalistic, paranormal, exceptional, etc. - terms which render clear, at the very least, the inherent evanescent quality of these occurrences.

On the one hand, it makes sense that parapsychology would pattern itself after a physicalist inspired experimentalism, a la J. B. Rhine (Braude, 1986). Certainly, it was enticing (and perhaps necessary) to be granted the prestige of scientific legitimacy in its inaugural years. As Irwin (1994) argues "without an extensive experimental foundation, parapsychology would have little claim to scientific status and certainly the discipline would be dismissed out of hand by the general scientific community to an even greater extent than it already is" (p. 10). Rhine was clearly in good company with this practice since Freud, it has been argued, conducted a similar maneuver with psychoanalysis (Freud & Brill, 1938).

On the other hand, however, such a 'selling of one's soul to the devil' has led to a century of parapsychology in which it is scarcely closer to achieving its dream of mainstream scientific legitimacy (Braude, 2012); nor, does it have a clearer alignment between its philosophical assumptions and the phenomena it seeks to explore. Times have changed in

the academy, the social sciences, and in psychology generally. As evidence of this, a qualitative research section was recently acknowledged by the American Psychological Association, which is keeping with the trend of other scientific disciplines such as anthropology, biology, nursing, medicine education (Lyons, 2009). Furthermore, important historical scholars in psychology such as James, Dewey, Festinger, Janis, Lewin, and Allport have all used a form of qualitative inquiry (as cited in Lyons, 2009). The formulation of rigorous and structured qualitative techniques and methodologies over the last several decades have allowed researchers to study human experience and sociality in new and scientific ways (e.g., Wertz, Charmaz, McMullen, Josselson, Anderson & McSpadden, 2011)

According to phenomenology, an irreconcilable failing of the physicalist view is its belief in the ability to construct a meta-language, which takes the form of physics and, ultimately, mathematics. A metalanguage is a latticework of symbols overlaid on reality such that it not only has the hope of offering a totalized explanatory model, but also becomes a quasi-transcendental epiphenomenon insofar as it stands outside of that which it seeks to explain (a contradiction for physicalism, indeed). Heidegger (1993) calls this the mathematical projection because it already presupposes the way in which beings appear to it vis-à-vis the language of mathematics; the projection necessarily mediates (and distorts) experience. To say it a different way, the metaphor of mathematics, when applied to the study of human experience, perverts the data. Braude (1986) echoes this point when arguing that the application of physicalism in parapsychology is misguided since there is no reason "why physics should have anything of great interest to say regarding psi phenomena, because it is unclear why physics should have anything of great interest to say about organic activities in general" (Braude, 1986, p. 17).

Another problem for physicalists has been the problem of induction (proceeding from statements about some to statements about all events of a particular kind), because it is impossible to precisely state "under what conditions a generalisation constitutes a good inductive inference" (Chalmers, 1999, p. 49). David Hume (1711 - 1776 AD; 1748/1990) articulated this problem in his famous example of the billiard balls. He argued that it can only be claimed, based upon previous observations, that hitting a ball in a straight line towards another will cause the sec-

ond ball to move. On principle, the case could always be otherwise. This is a problem for the physicalists because it raises the question of how a meaningful, substantiated, and grounded theory can be derived if inference boils down to the expectancy of previously observed patterns - i.e., if it is principally contingent.

This problem of inference was countered by Popperian falsificationalists (cf. Popper, 2002) who believed that, instead of induction, scientific theories should be judged based upon their ability to withstand constant attempts at refutation. Thomas Kuhn (1970) makes a regress argument against falsificationism such that it requires an appeal to a criterion of degree of improbability in order to render the value of a theory. This implicit need for a standard of falsifiability leads to a regress because once said criterion is established it will need to be adjudicated by an additional standard, ad infinitum. I bring these points up to demonstrate the difficulty in using induction to generate a theory out of the facts. What I will argue for later is that parapsychology should shift from being in an exploratory approach that relies on induction, to more of a descriptive model that arises out of phenomenology. Description and explanation are two very different projects.

Even for William James, using induction to produce universal categories was seen as problematic because abstraction was "more misleading than enlightening" (Wertz et al., 2011, p. 25). Instead, he emphasized particulars relating to "the feelings, acts, experiences of individual men [humans] in their solitude, so far as they apprehend themselves to stand in relations to whatever they may consider the divine" (Wertz et al., 2011, p. 25-26, italics in original). This illustrates that, far from being a physicalist, James was an advocate for more of an experiential and qualitative approach to research methodology.

If we accept that since the time of William James parapsychology is nowhere nearer to developing an accepted understanding of psi (Felser, 2001), then perhaps, in part, it is because parapsychology deviated from James's conception of psychical research as based more on a nuanced understanding of experience and subjective awareness. James's approach was largely overshadowed by J. B. Rhine's experimentalism, which codified in the 1930's and has remained more or less dominate in parapsychology for most of the twentieth-century (Beloff, 1993).

Where Experimentalism Went Wrong

J. B. Rhine was able to bring psychical research under one paradigm - parapsychology - and establish arguably the closest thing to a paradigmatic normal science, in the Kuhnian (1970) sense, that parapsychology has since seen. A paradigm, for Kuhn (1970), means that a discipline has reached a wide consensus as to what constitutes its terminology, methodology, and research aims. Under this paradigm, Rhinean experimentalism, as Bauer (2012) articulates, "implies that mind is a real force called 'psychokinesis' or that 'ESP' is something like an information transfer" and contains recurrent issues "like the 'elusiveness' of psi, decline effects, or the replication problem" (p. 8-9). Under the umbrella of experimentalism, parapsychology has been plagued by the aforementioned 'hard' problems, which it generally has failed to see as a function of the very physicalist and experimentalist assumptions it has adopted. Namely, they are a result of experimentalist parapsychology making a category error in the (mis)understanding of the domain of its phenomena.

To explicate this category error: in the phenomenological tradition, there is a long held distinction between the world of the natural sciences, like physics and chemistry, and the world of human experience; as Giorgi (1970, 1976) quips, world and nature are not the same. For example, Heidegger (1927/1996) argues that it is only on the basis of the pre-reflective world of human beings in which the domain of nature becomes at all intelligible; to be more precise, the worldliness of the world foregrounds the beingness of the domain called nature insofar as the latter's intelligibility is predicated on the former's ontological primality - do we not interpret the 'world' before it is rendered comprehensible? Parapsychology, as made explicit in experimentalism, has conflated precisely these two realms - nature with world - such that it has taken the approaches used to study nature (i.e., experimentation) and applied them to the study of human experience. When this category error occurs there is a serious distortion in the phenomena that are being researched (Giorgi, 1976).

Perhaps this argument can be more thickly articulated through a parallel comparison. Take, for example, general psychology. The current state of affairs in psychology proper is, in a word, disparate. The American Psychology Association (APA) currently houses 54 divisions among which are Behavioral Neuroscience and Comparative Psychology, So-

ciety for Humanistic Psychology, and Psychoanalysis (APA, n.d.). These three divisions, in particular, illustrate the large extent to which psychology as represented by APA amalgamates a variety of perspectives with incommensurable metaphysical, epistemological, and methodological presuppositions. There has been debate about whether or not this disparity actually constitutes a scientific discipline (Giorgi, 1976; Kuhn 1970).

Giorgi (1976) has argued that psychology needs to coalesce around a "point of view or perspective" that constitutes an "authentic paradigm" (p. 288). Importantly, though, to critique the multiplicity in psychology (or parapsychology) does not "mean to imply a desire for uniformity, homogeneity, or lack of problems" but, rather, to express the need for agreement on a "clarified perspective that differentiates" such as found in physics (Giorgi, 1976, p. 288) whereby researchers may develop competing theories but still operate under the aegis of internally consistent philosophical assumptions.

Giorgi (1976) advocates for phenomenological philosophy as the unified paradigm because psychology is the study of *human experience* or the life-world, which philosophical phenomenology has sought to articulate since Husserl (1954/1970). In other words, the methodologies of the natural sciences, when lifted from their proper place in physics, chemistry, and biology and are applied to human experience, are 'out of their league' and 'in a different ballpark', so to speak. This would be like trying to play the game of baseball on a football field - the rules do not match the setting.

This sentiment is echoed by Rhea White (1997) who reports that "parapsychology has adopted an almost exclusively experimental approach that does not yield results that can be applied meaningfully to the needs of persons who report psychical experiences" (p. 90). Moreover, White's observation has not gone unsubstantiated by other scholars in the discipline (e.g., Bauer, 2012; Beloff, 1993; Kelly & Kelly, 2012; Simmonds-Moore, 2012). In fact, Braude (1986) goes so far as to argue that:

...It appears that an entire theoretical tradition in parapsychology is deeply misguided. As a rule, parapsychologists have tended to analyze psi phenomena along lines familiar to the physical and biological sciences. They assume that observable psi phenomena have unobservable underlying structures, and that the former are thoroughly analyzable in terms of the latter. (p. 239)

In this analysis, experimentalism has been misguided insofar as its analysis relies are rendering psi intelligible in regards to an underlying mechanism, which, as Beischel (2012) notes, is a phantasm created by experimentalism. Beischel (2012) thinks that this is an erroneous starting point for parapsychological research and that "psi will continue to exist sans mechanism" (p. 10) with or without the experimentalists' permission.

Moreira-Almeda (2012) argues that the approach of experimentalism is harming the growth of parapsychology and is actually a naive form of scientific practice:

This epistemological stance also favored an "anti-theoretical" approach, in the belief that mere collection of more and more refined experimental data would lead to complete scientific knowledge. This is a major factor which has been impairing theoretical development. In contrast, I believe that research should be conducted within the framework of what philosophers of science have called "scientific research programmes" (Lakatos 1970) or "paradigms" (Kuhn 1970), which include methodological principles and metaphysical and theoretical assumptions. (Moreira-Almeda, 2012, p. 34)

Moreira-Almeda adds another voice to the argument that predicts the impossibility of experimentalism sans theory to succeed. If Rhine's experimentalism and physicalism is "dead" (Bauer, 2012; Braude, 1986), then perhaps the time is ripe for emergence of new, more phenomenological centered understanding of parapsychology.

Why a Phenomenologically Informed Parapsychology and Not Others?

Underlying the proliferation of qualitative approaches in parapsychology and psychology proper is, in part, greater acceptance of the unassailable cleft between the study of the natural world and the study of human beings. Wertz (2011), who hails from the phenomenological tradition, describes how this distinction has a varied philosophical history and shows-up in the ongoing debate between qualitative and quantitative researchers:

Consistent with Dilthey's ontology and epistemology, continental philosophy has developed through the 20th century on the basis of the conviction that the physical and psychological realities are different kinds and therefore require different ways of knowing. Following this philosophical position, many qualitative methodologists assert that their methods have priority in the human sciences, in which inferential methods are relegated to a subordinate role, in contrast to mainstream researchers in psychology whose methodological hierarchy privileges hypothesis testing by quantitative analysis. (Wertz, et al., 2011, p. 81)

In relation to parapsychology, Braude (1986) argues concurrently with this distinction and couches it in terms of organic versus non-organic inquiry:

Perhaps the main reason for this widespread procedure is that parapsychologists have simply adopted the confused principle that vitiates a great deal of research in the behavioral sciences - namely, that organic phenomena generally (including cognitive and intentional phenomena) are analyzable in ways appropriate to (most) purely impersonal, mechanical, or nonorganic phenomena. But behind this methodological assumption - or at least connected with it - is a deeper assumption about the nature of explanation and analysis that I believe to be false, and which certainly deserves to be brought clearly into the open. (Braude, 1986, p. 239)

Yet, inspite of this argument, many researchers see quantum physics as a heralding savior for parapsychology, which, they hope, will bare-out evidence for psi and enthrone parapsychology as a legitimate scientific discipline.

Quantum Theory

Case in point, Parker (2012) believes that progress in parapsychology could come from the study of non-local effects occurring in the brain in relation to quantum mechanics. Radin (2012) also advocates for hitching the yoke to quantum theory and believes that the development of a post-quantum theory will need to arise in order to account for a deeper sense of reality that will link subjectivity with objectivity. The

Parapsychology Association's website even lists nonlocality as the new, cutting-edge paradigm in parapsychological research; notably, the article is clearly written with a physicalist tint (PA, 2012).

If we hold the distinction between the natural world and the human world to be true, then these hopes seem altogether misguided and, at worse, categorically false. From a phenomenological perspective, parapsychology stands little to gain by interfacing with quantum mechanics. The metaphors like 'nonlocality' and 'quantum entanglement' that researchers like Parker (2012) and Radin (2012) are so eager to appropriate have their counterparts in philosophical phenomenology such as in 'being-in-the-world' and 'ready-to-handedness' among a plethora of others (e.g., Glazier, 2013). The latter metaphors are more appropriate for parapsychology because (A) they do not require a co-option of quantum physical terms by researchers who most certainly do not have an adequate understanding of the total quantum theory (how could they when there are only a handful of scientists in the world that do?) and (B) they map onto the domain of human experience whereas the others are meant to describe the physical world.

Furthermore, it could be argued that phenomenological philosophy was inaugurated by Husserl (1954/1970) to overcome the very dichotomy that Radin (2012) hopes will be dispelled by quantum theory: the distinction between subjective and objective. Phenomenological philosophy and ontology up through Heidegger (1927/1996) and Merleau-Ponty (1947) are explicit philosophical treatises aimed at unifying this split. Phenomenology, not quantum theory, can offer parapsychology the very "deeper" sense of reality that Radin (2012) was referring while remaining true to the topology of psi in human experience.

Exceptional Experiences and Psychology

The trajectory of parapsychological literature shows hope of shifting away from strict experimentalism and towards increasing openness to qualitative, therapeutic, and experiential approaches. For example, there has been a move away from physicalist theorizing in parapsychology (e.g., Carpenter, 2004; White, 1997) with the accompaniment of an increased acceptance and use of non-experimental, qualitative approaches to research (e.g., Heath, 2000; Kashara, 1983). In terms of breaking away from the

experimentalist tradition, Rhea White's (1997) model of exceptional human experiences (EHE) offers an excellent example of this because it does not seek, first and foremost, to adjudicate the EHE in terms of logical-scientific frameworks.

Building on White's reconceptualization of parapsychology, Simmonds-Moore (2012) advances expanding parapsychology into a new discipline of exceptional psychology, which provides an avenue whereby parapsychology can become more palpable to traditional psychology and academia. She states that "Exceptional Psychology will include the systematic study of a number of phenomenologicallyrelated exceptional experiences, their correlates and applications. Exceptional psychology will seek to understand exceptional experiences as the result of interactions between the mind, subjective meaning, the body, and the social and physical environment" (Simmonds-Moore, 2012, p. 55). Exceptional psychology is philosophically commensurable with phenomenology because it recognizes the need to place human experience as primary and follows in the footsteps of the relatively recent qualitative movement within the discipline of psychology proper (Lyons, 2009).

The upshot of reconceiving parapsychology in this way is that it has the potential to lose itself as a separate discipline. Schwartz (2012) seems to be setting the stage for Tart (2012) by proffering that it may be helpful to understand how the spiritual terms spirit and soul could be employed as useful metaphors in parapsychological research. Ultimately, Tart (2012) takes this and runs with it by inciting parapsychology to amalgamate with transpersonal psychology. While Tart's rally is one possible scenario, I wonder if it is necessary. Might it be possible for parapsychology to retain its status as a distinct discipline while shifting more toward a human science understanding of psi? Perhaps under the banner of exceptional psychology?

White's (1997), Carpenter's (2004; 2012), and Simmonds-Moore's (2012) theorizing are a welcomed addition to the parapsychological literature that maintains the discipline as distinct and, yet, shifts it to more of a mixed-methods approach with an experiential and phenomenological foundation. As has previously been argued, this is more in line with William James's original conception of psychological practice (Wertz, et al., 2011), which would mean that, in some ways, parapsychology has come full circle.

Anomalistic Psychology

Part of the change that has taken place in the broad field of psi research is the emergence and relative success of anomalistic psychology. While anomalistic psychology began as a relatively skeptical enterprise (Zusne & Jones, 1989), the more recent incarnations of it have shifted from skepticism to a stance of neutrality regarding psi phenomena. This seems to be, in part, what has constituted the success anomalistic psychology has had in the United Kingdom's universities (Holt, Simmonds-Moore, Luke, & French, 2012). What is problematic from a philosophy of science perspective is anomalistic psychology insistence that research on psi phenomena be unequivocally disinterested. As Irwin (2012) states that anomalistic psychology believes in the "explicit advocacy of a dispassionate analysis of anomalous experience, a stance that circumvents the source of much of the stigma currently attaching to parapsychology at many levels of academia" (p. 25). This position begs the question of whether scientific practice as such can ever be totally disinterested.

The claim of the scientist's neutrality in relation to the phenomenon under investigation is becoming increasingly recognized as an outmoded modus operandi. For example, Dreyfus (2006), a Heideggerian scholar, reiterates the phenomenological tradition's belief in the inability to achieve a dispassionate objectivity by any scientist. Additionally, in recent years, many disciplines like sociology, anthropology, and psychology have initiated their own 'science studies' to generate scholarship in order to better understand the relationship between subjectivity and research (Hess, 1997). For instance, Osbeck, Nersessian, Malone, and Newsetter (2010) examined a STEM (science-technology-engineering-mathematics) laboratory at a division one research university using qualitative methodologies and found that far from being neutral, objective researchers, the scientists infused the research with their subjectivity through their emotionality, sociality, culture, and identity. In contradistinction to this, anomalistic psychology makes the claim of dispassionate analysis of anomalous experience, which seems to ignore the inherently value-laden nature of scientific practice.

Phenomenology recognizes that phenomena are influenced by the researcher through incorporating this ontological fact into a rigorous methodology. Husserl (1980) argued that there is no possibility of a pure empirical observation because a relation to an

object is always intentional; that is, the thought of something is always *about* that thing – i.e., directed toward that object in some way. Thus, we necessarily change the object we are researching by the mere fact that we are researching it. This kind of enmeshment between subject and object is fundamental to phenomenological philosophy.

Rising from the Ashes

The various polemics surrounding what constitutes the parapsychological discipline are echoed by Kuhn (1970) in his analysis of the development of the scientific enterprise; that is, members of paradigms that have become unsustainable take a defensive stance and guard against what seems to be the impending demise of the old way of doing normal science, which indicates the stirrings of a crisis. In parapsychology, this reaction has already been noted by James Carpenter in what he calls the "old guard" of parapsychologists who wish to retain the faltering paradigm of experimentalism (Carpenter, 2012).

Braude (1986) describes the new "trail-blazers" of psi research as being what sounds like psychotherapists or phenomenologists attuned to the nuances of the lived world in that they "will probably be masters, not just of the data, but also of human psychology and the subtleties of life. They will have to explain the role of psi outside the situations in which parapsychologists try to harness it for the purposes of investigation" (p. 255). He goes on to advocate for "fewer technicians and more parapsychological naturalists, [we need] people with an eye for regularities and connections, and a gift for qualitative analysis, researchers whose keen perceptions and descriptive powers will help reveal illuminating patterns and relationships in the data" (Braude, 1986, p. 255). Braude's position fits that of a phenomenological researcher who is most apt in conducting future psi scholarship because of the researcher's unique relationship to psychological gradations and meanings.

Someone who, as Wertz (2005) says, can engage in ongoing and continual reflection by dwelling with the data through "an extreme form of care that savors the situations described in a slow, meditative way and attends to, even magnifies, all the details" (p.172). Phenomenology can offer parapsychology not only a specific qualitative methodology (Giorgi, 1976), but also a rich and extensive philosophical history upon which to draw (Husserl, 1954/1970; Heidegger, 1927/1996; Merleau-Ponty, 1947).

Future Directions and Conclusion

In this manuscript, I have argued that phenomenology can help parapsychology better align with the domain of its phenomena; namely, that of the human world of experience. My endeavor has been (A) to look at the philosophy of science of parapsychology and (B) offer an alternative to experimentalist physicalism in the form of phenomenology. I have couched this argument within concurrent and emerging trends in the parapsychological literature (Braude, 1986; Carpenter, 2004; Simmonds-Moore, 2012; White, 1997) in the hopes of understanding these developments through a historically extensive, philosophically robust, and psychologically astute approach in phenomenology. What follows are future directions that flow naturally from this analysis.

It may be helpful for an increased proliferation of scholarship within the parapsychology discipline itself as to what the profession understands as science and, then, subsequently using those findings as a commentary on the scientific enterprise proper. As a science, parapsychology is in a unique position because, as Kelly and Kelly (2012), point-out psi phenomena:

...clearly pose a direct threat to this presently-dominant worldview, and that single fact largely explains the implacable and vocal hostility of its more scientistic public defenders. Many of these selfappointed vigilantes for the scientific status quo clearly seek to isolate and quarantine parapsychology as though it represented the only serious threat to a physicalist program that otherwise is advancing triumphantly all across the board. (p. 27)

Due to its domain of study, parapsychology has the potential to use the inherently anti-physicalist nature of psi as a means by which to contribute to a commentary on physicalism and legendary science. One such philosopher of science that may be a spring-board for this dialogue in parapsychology is Paul Feyerabend (1990). Feyerabend's anarchistic theory of science could be helpful for parapsychology because it undercuts legendary science's claim to be a special method at obtaining truth and, as a result, opens the possibility for the legitimacy of phenomena that have typically been on the fringe of mainstream science.

Another future direction that could be beneficial for parapsychology comes out of feminist scholarship and bares a family resemblance to phenomenology. The work of Donna Haraway (2003) is uniquely suited for conceptualizing the tricky nature of psi phenomena by offering a cosmology that is reminiscent of the coyote and trickster myths from around the world. Hansen (2001) has already noted the affinity between psi and the archetype of the trickster. However, he did not have the epistemology and ontology that Haraway develops as a grounding for his analysis. A project that undertakes an appropriation of parapsychology in terms of Haraway's metaphysics has the potential to be extremely fruitful.

From a phenomenological perspective, it is interesting that Haraway's (2003) notion of truth is similar to Heidegger's (1927/1996) in that there is both a playful covering and uncovering. Haraway's, though, is a bit more disingenuous such that the world will intentionally dupe the researcher - pure replication is impossible and, stronger yet, the researcher should expect to be tricked. Haraway (2003) also offers insights on how to bring the material and semiotic together in her unique conception of the cyborg. This opens-up interesting horizons for parapsychology in terms of interfacing research findings with semiotic, lived systems thereby aiding in the conceptualization of the interaction between mind, body, and the world.

In forgoing article, I have set out to answer the question of what makes parapsychology unique in its ability to understand psi phenomena. I have argued that the physicalist experimentalism that dominated parapsychology for most of the twentieth-century contains unresolvable philosophical problems when applied to the study of human experience. As an alternative, I suggested that phenomenology may be able to help parapsychology better understand the nature of its scientific practice. Whatever direction parapsychology takes, it seems it must either evolve and adapt to the broader cultural landscape or continue to struggle for survival and face continued ostracization and possible extinction.

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Commentary: Contemplating Parapsychology's Evolving Philosophy of Science

Mark A. Schroll



In his paper, "A Phenomenological Evolution of Parapsychology's Philosophy of Science," Jacob W. Glazier asks a question worth contemplating. Has J. B. Rhine's effort to demonstrate whether or not parapsychological phenomenon are real by assessing them using the experimental method (which supports a particular kind of physical or material assumption about reality) resulted in more confusion than clarity? Glazier argues that the lure of scientific respectability was reason enough for parapsychology to pursue this line of inquiry, yet a century later has failed to achieve scientific legitimacy; "nor", Glazier contends, "does it have a clearer alignment between its philosophical assumptions and the phenomena it seeks to explore" (Glazier, 2014, p. 34). Likewise Glazier rejects aligning our investigation of parapsychological phenomenon with "quantum theory" because its paradigmatic foundations seek (like the experimental method) to provide a physical or materialistic understanding of reality. Glazier argues that all these efforts should be abandoned (including Charles T. Tart's suggestion to merge exceptional psychology with transpersonal psychology). Instead Glazier favors the creation of a "distinct discipline while shifting more toward a human science understanding of psi" (Glazier, 2014, p38), thereby aligning parapsychological inquiry with a phenomenological and qualitative orientation. All these points and assertions are worthy of discussion, and I have replied to a few of them in the short time I was given to respond to Glazier. Thus beyond my brief comments following this introduction, I want to encourage all of us to participate in reassessing our familiar paradigmatic scenery, our unconscious infrastructure of ideas, our fundamental conceptual proposals holding together our views of science and culture.

Materialism, Qualitative Research, and a Reassessment of Science

Tart provides the briefest explanation that I know of as to why science is so materialistic, telling us:

...science had to separate itself from the agenda of the Church by saying that it was not going to deal with anything spiritual—they were just going to look at the physical facts that can be observed and measured in terms of quantitative analysis. The Church was not interested in this way of approaching understanding, which helped to provide science with an opportunity to pursue its questions about the physical world. But then science became attached to perceiving reality as nothing more than this physical world (Tart, 2012:20).

This preference for a purely materialistic view became increasingly predominant over the next two centuries. Tart tells us that by the early 19th century, "sociologists were talking about scientism when they recognized that for a lot of scientists, the practice of science was no longer a method for trying to refine our knowledge about reality. It became an arrogant agenda where we [had] basically figured out everything important, and we could ignore all of the worldviews that did not fit" (Tart, 2012, p. 20). Here their is agreement between Tart and phenomenologist William A. Luijpen, who argued that: "Phenomenology is the disavowal of scientism" (Luijpen, 1966: 8). Luijpen clarifies his critcism of science as scientism as our forced acceptance of a worldview that declares there is "only one way to talk objectively about reality and this way was exemplified by the physicist. . . . and that our spontaneous and ordinary experience of the world would have to be replaced by a system of scientific experiences" (Luijpen, 1966:7).

I therefore agree with Glazier that investigating psi or psychical phenomena using the experimental method has put parapsychology in an awkward position. This is because most of us continue to view the existence of psi and/or its modus operandi as something other than physical reality. Lance Storm agrees, quoting Pratt (1960) who regards psi phenomena as "precisely those psychological events which defy description in terms of any physical theory now available" (p. 25) (Storm, 2005:286). Taking a further step "in support of Pratt," Storm argues:

...his characterization of psi is in harmony with the psi hypothesis: psi may be incompatible with current scientific principles, but that should not preclude its existence when it may be the case that the problem lies with our scientific principles, not the psi hypothesis (Storm 2005:286).

Stanley Krippner agrees, "My feelings about psi phenomena are that they're alleged interactions between organisms and other organisms, or organisms and their environment that appear to violate mainstream science's concepts of space, time, and energy" (Schroll 2010b:4) (Schroll 2012:61). Krippner sums up the problem we are seeking a solution to by arguing: "Furthermore psi phenomena apparently exist, but they are not supernatural, they are natural; they are not paranormal, they are normal. They're anomalies; we just haven't figured out how they fit into the scheme of things" (Schroll 2010b:4) (Schroll 2012:61). The question this raises is does saying that psi phenomena are "normal" mean that they are "material"? No is the short answer, a slightly longer answer is in the next section. A much longer answer, yet one I continue to feel is introductory, can be found in my paper "Understanding Bohm's Holoflux: Clearing Up a Conceptual Misunderstanding of the Holographic Paradigm and Clarifying its Significance to Transpersonal Studies of Consciousness" (Schroll, 2013b).

From a slightly different perspective, Glazier has offered the solution that a better way of investigating psi phenomena is through phenomenology and qualitative research:

Roe (2012) also is a believer in the need for parapsychology to consolidate into a single paradigm. If Rhine's experimentalism and physicalism is "dead" (Bauer, 2012; Braude,

1986), then perhaps the time is ripe for emergence of new, more phenomenological centered understanding of parapsychology (Glazier 2014:??).

I too have summed up my criticisms of Euro-American science by analogy (which includes a critique of experimentalism and physicalism) by saying that:

the assumptions and methods of science are similar to a voyeur watching two people having sex while looking through a keyhole. The keyhole's outline constitutes the paradigmatic parameters that define its domain of inquiry (i.e., its ontology), while our noninterfering observations represent its analytic and objective criteria (i.e., its epistemology). Limiting its ontological inquiry, EuroAmerican science has been able to formulate some basic laws that holdat least within its limited framework. But the whole of reality is larger than what science can see through the ontological parameters of its keyhole; likewise its objective epistemology fails to provide us with an understanding of the subjective qualities that the two people making love are experiencing. This image of the infinite depth of reality, whose basic structure is a dynamic, undivided whole, is the vision of human potential that informs the worldview of transpersonal psychology, the anthropology of consciousness, and related disciplines (Schroll 2010a:6).

Similarly I too was drawn to an ethnomethodological perspective (grounded in phenomenology), and found the work of Amedeo Giorgi insightful (Giorgi 2000, 2005). This inquiry (now spanning 30 years) led to my paper, "Toward a New Kind of Science and Its Methods of Inquiry" (Schroll 2010a), whose suggestions for the investigation of shamanism and alternate states of consciousness has (I recently learned) offered support to Jean-Francois Sobiecki's field research with "Psychoactive Ubulawu Spiritual Medicines and Healing Dynamics in the Initiation Process of Southern Bantu Diviners" (2012), who tells us:

experiential accounts have value in indicating potential psychoactive actions and furthering our understanding of healing consciousness. The experiential insight gained from psychoactive plant use and related enhanced states of awareness should be promoted among researchers, instead of being stigmatized. There is a call for this type of expanded experiential insight-based methodology in the field of ethnography (Schroll 2010[a]), and this could extend to fields such as psychology, ethnobotany and pharmacology (Sobiecki 2012:222).

Nevertheless, despite this support in both theory and practice (i.e., field research), my views on methodology continue to evolve, and in 2010a led me to conclude:

...that even though ethnography and other narrative heuristic approaches are improvements on strict quantitative methods, ideographic methods also collect data in an objective way. Data is treated as an "ontological other" or thing that is separate from the observer. This approach is not an I/Thou, Dasien, or wu-wei orientation, which are perspectives that allow the researcher to truly become a participant observer. Similar to nomothetic methods of research, participant observation collects, analyzes, and interprets data as an I/it relationship, failing to grasp the "beingness" of the experience. Ultimately therefore, none of this is doing any good (Schroll 2010a:15-16)

Similar views and considerations have been boiling in a cauldron of controversy for years and decades prior to my taking up these concerns, that include (but are not limited to) Goulet & Miller 2007; Madsen, 1971; Polanyi 1958; Polkinghorn 1983; Prattis 1997; and Rogers 1985. These concerns have also been taken up in Paranthropology by Hunter 2013, and by Bowie 2013. But this inquiry into methodology continues to have many unanswered questions pleading for our attention. Until then:

...the jury of scientific inquiry as a whole is still deliberating the "thing-in-itself," and as a consequence continues to be restrained by the straightjacket of a dualistic paradigm that refuses to acknowledge the existence of psi/spirit. This restraint has kept us from achieving the necessary paradigm shift whose conceptual transformation would allow EuroAmerican science to envision a comprehensive theoretical understanding of psi/spirit/transpersonal ex-

perience. Thus we still have further to go. Nevertheless, with individuals in the fields of humanistic, transpersonal psychology, and the anthropology of consciousness working together, we are coming closer to envisioning a new kind of science and its methods of inquiry (Schroll, 2010a:21).

Quantum Theory, David Bohm, and the Physics of Psi

Glazier's concern regarding the reduction of psi to physicalist interpretations (this volume), are well taken. It is with this concern in mind that I want to state clearly I do not reduce the phenomena of psi to a physicalist interpretation, yet neither do I view psi as non-physical. Nevertheless it is conceptually and linguistically problematic to offer a discussion of psi phenomena as anything other than physical or non-physical. And yet Robert Oppenheimer, publishing in the journal American Psychologist, called attention to this general problem in 1956, telling us:

...it seems to me that the worst of all possible misunderstandings would be that psychology be influenced to model itself after a physics which is not there any more, which has been completely outdated. We inherited, say at the beginning of this [sic, the 20th] century, a notion of the physical world as a causal one, in which every event could be accounted for if we were ingenious, a world characterized by number, where everything could be measured and quantified, a determinist world, a world in which there was no use or room for individuality, in which the object of study was simply there and how you studied it did not affect the object, it did not affect the kind of description you gave of it, a world in which objectifiability went far beyond merely our own agreement on what we meant by words, and what we are talking about, in which objectification was meaningful irrespective of any attempt to study the system under consideration. It was just the given real object; there it was, and there was nothing for you to worry about of an epistemological character (Oppenheimer, 1956:50).

But very few people (including new generations of physicists and psychologists) have sought new ways of envisioning old problems in terms of the continually evolving physical science understanding of reality. I have offered my own views on this in Schroll 2013a, 2013b. It is a problem so pervasive that in his book In Search of Reality (1983) physicist philosopher Bernard d'Espagnat also sought to address this problem. In response to the experimental verification of nonlocality, violating the postulate of physical realism (which Schroll 2010b has summarized), d'Espagnat comments:

If I would retain my realistic requirements, I am therefore compelled to embrace a non-physical realism, which might be called a theory of veiled reality. . . . I understand non-physical realism or the theory of veiled reality to mean any realism that does not satisfy the hope. . . [of Einstein] which the postulate of physical realism summarizes (d'Espagnat, 1983: 94).

Therefore like David Bohm (1980), d'Espagnat has found it necessary to postulate a domain of reality beyond the framwork of space-time, and beyond description in terms of our current concepts. During a luncheon meeting with d'Espagnat at the 13th International Wittgenstein-Symposium in Kirchberg am Weschel, Austria, I inquired about the similarities between d'Espagnat's concept of non-physical realism and Bohm's implicate order; d'Espagnat pointed out, "Bohm is generally more optimistic than I am regarding the generalizability of his theory. My concept of non-physical realism is therefore much more limited than Bohm's concept of the implicate order" (personal conversation, August 17, 1988).

This is why whenever someone offers a critical or favorable comment on quantum theory, my first response is to ask, what version are you talking about? Currently there are eight distinct versions of quantum theory, with various subtle differences on each of these intrepretations. To assist us in sorting out these various interpretations, I recommend Heinz R. Pagels book The Cosmic Code (1983) (in particular chapter 13, "The Reality Marketplace" pp. 153-165), for an entertaining clarification and overview of quantum theory's many intrepretations, Likewise I recommend Nick Herbert's book Quantum Reality: Beyond the New Physics (1985), which offers an equally well-written overview of quantum theory's various intrepretations in chapter 9 "Four Quantum Realities" pp. 157-175, and chapter 10 "Quantum Realities: Four More" pp 177-197.

In consideration of my personal preference for Bohm's interpretation of quantum theory, Sheldon Goldstein, Department of Mathematics, Rutgers University, assists us in driving this message home, telling us:

Bohmian mechanics is more than merely an alternative to the orthodox Copenhagen interpretation of quantum theory, more than a choice between equals. After all, orthodox quantum theory, with its invocation of "measurement" in a fundamental and irreducible manner, with all its appeal to collapse and to the observer, does not exist as a precise, wellformulated physical theory. In fact, it could be argued that orthodox quantum theory is physically vacuous. This of course raises the question as to how physicists have managed with such great success to employ orthodox quantum theory—how this theory could work so well for all practical purposes! The reason for this, I would argue, is that in using orthodox quantum theory physicists are thinking in Bohmian terms—despite the fact that they would claim they are doing precisely the opposite (Goldstein, 1996:162-163, italics added)

This then is a tremendous transformation of our worldview. It is shifting the focus of our assumptions from thinking of atoms as independent self-contained methematical points that exist in some manifest state, whose change of location and arrangement in space is the result of external forces acting on them, to this: a worldview of fundamental unity, whose transformation and evolution is described as an interlocking set of probability patterns, whose actual location in relation to the whole is indeterminate, but whose relation to other particles in particular experiments is quite determinate; it is a concern with change in spacetime or velocity. Moreover we must remember that the particle/wave does not move like we perceive (or think of) motion in manifest objects.

Unfortunately due to its inherent elusiveness, it has to be said that all of our current attempts to make sense of the quantum revolution's view of reality are open to a variety of interpretations. Consequently the one I have offered here is (to the best of my ability) a summary of how Bohm's interpretation of quantum theory relates to the general topic of constructing a new philosophy of science for parapsychology. It is toward achieving this hopeful vision

that I will let Bohm have the last word on these matters:

What is under discussion here is, of course, not merely a way of understanding and working with parapsychological phenomena. It is a different self-world view, emerging out of modern physics and yet going beyond the restrictive framework from which modern physics grew. In this way, the discoveries of modern physics come to give support to the movement in which the rigid division between observer and observed can be dropped—a movement that could evidently be the beginning of a fundamental change in [our understanding of] consciousness itself (Bohm, 1986:134).

Conclusion

Glazier's paper raises important questions about how the continuing evolution of parapsychological studies should be explored. Particularly the importance of breaking away from physicalist theorizing, and the potential benefits of utilizing non-experimental, qualitative approaches to research and embracing Rhea White's (1997) model of exceptional human experiences. In offering my assessment of these considerations, we have discussed how Oppenheimer pointed out the limitations of physicalist theorizing to mainstream psychology in 1956; as well as examining the potential benefits of Bohm's interpretation of quantum theory toward a new philosophy of science for parapsychology.

We also discussed the benefits and limitations that are part of non-experimental, qualitative approaches. Likewise (even though this was not discussed in this commentary) Tart's (2009, 2012) call for an "essential science" includes within it his own view of exceptional human experiences. Tart (1986) elaborated on these methods, where he emphasizes our need to work "with deeper experiential data" (p. 295). Also Tart and I share a preference for including exceptional human experiences within transpersonal psychology (Tart 1993; Schroll 1998), and the anthropology of consciousness (Schroll 2010a). Nevertheless, I remain open to the consideration of other approaches.

Moreover with regard to methodology, while Glazier (this volume) mentioned that prior to the Rhineian revolution, "parapsychology tended to be more semi-experimental and anecdotal." It is worth pointing out even after J. B. Rhine's experimental approach to parapsychology was adopted that anecdotal accounts of psi did not cease to be a method. Sally Rhine Feather points this out, reminding us that, "In 1948, my mother, Dr. Louisa Rhine began to collect letters describing interesting, sometimes bewildering, and occassionally unsettling ESP experiences" (Feather & Schmicker, 2005: xiv). Following the passing of her mother, Rhine-Feather has continued collecting anecdotal accounts, and to develop ways she can improve a methodology for working with them. During the symposium "Non-Local Consciousness, Dreams, Psi and Religion", Rhine-Feather recalled several anecdotal accounts of psi phenomena, as well as her ideas for improving their methodological assessment (Schroll 2006).

To conclude, in addition to the many questions raised so far, a few more came to mind during the composition of this commentary that are worthy of consideration. What is our purpose for wanting to understand psi phenomena? Is it to prove psi's existence so that science can be shown that its understanding of reality has been limited? Is it to offer proof of psi's existence for those of us who have experienced it, so we can have peace of mind that we are not suffering from some form of mental illness? Finally, I have often wondered if the real goal of parapsychological inquiry is it to provide an understanding of an ability we all have, and to reveal to us that psi represents the connective principle to our cosmic co-evolution (past, present, and future)?

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Experiences of Synchronicity & Anthropological Endeavours (Part 2): 'Beyond a Psychology of Projection Into a Cosmology of Synchronicities'

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In March 2003, one and a half years after fieldwork, I returned to the village Sarogoaika with two questions. Do the Zanadroandrena understand the astrological destinies in terms of the changing features of the weather and is their history related to the backward movement of the astrological moon in the sun year over a course of about 30 years? Luck was with me. The answers were given to me without I even had to pose my questions. While I had been pondering over the weather features in relation to Zanadroandrena astrology in Belgium, some members of the Zanadroandrena family had suffered material destruction from severe thunder attacks which they related to sorcery. Forces of thunder and other related weather aspects became the discussions of the day since then. If this was not enough cause for distraught, the wooden posts of their ritual centre that gathers all the invisible forces of the land had also collapsed. During their yearly ritual at the centre in the beginning of March the healer in charge of the place revealed that they should renew the posts in the beginning of April. "If not, they would have to wait about 30 years before they could do it again", he said. At the time of my visit in March 2003, the new moon bringing the destiny Alasaty, the destiny of the Zanadroandrena in relation to their land, had almost reached its starting position in conjunction with the path of the sun and other stars before it would move again backwards through the solar year. Ever since, I understood the Zanadroandrena destiny Alasaty (the simmering fire in autumn) as the marriage of earth and sky when the village slumbers for a while wrapped in the silence of the morning haze. This image was given in a dream the day before I travelled to Madagascar. [Today, in December 2013, I found out that Jung is a Lion (Alasaty) by birth, the solar power in conjunction with the earth (Dunne 2012, pg. 218).]

In the previous issue of paranthroplogy (Mattheeuws 2013) I introduced the phenomenon of synchronicity based on personal experiences. For Jung, who launched the term, synchronicity refers to a certain psychic event (a vision, a dream, a feeling) that is meaningfully paralleled by some external non-psychic material event without a causal connection between them. Synchronistic experiences have no logical explanation or physical cause. What binds is meaning. Although I can give examples of beautiful experiences, many other events have been rather unsettling, embedded in a traumatic return to Europe from fieldwork and growing symptoms of chronic fatigue syndrome. This is not unusual since experiences of synchronicity appear more often during emotional distress and as part of transformations.

In this second part of the essay on synchronicity I will make an initial attempt to explore the phenomenon of synchronicity academically and its relevance in anthropological endeavours towards a more holistic worldview in the discipline. I will give you first my reading lines where after I will show the directions of my thoughts through the eyes of some prominent scholars who have taken Jung's discussions on synchronicity into different terrains of research. I will end this essay with some reflections on anthropological endeavours by respectively Ingold and Goethe towards a wholistic world view and how to en-soul research.

Reading Lines

Rather late in his career in 1952 and after a long period of hesitation, the Swiss psychiatrist and psycho-

therapist Carl Gustav Jung (26 July 1875 – 6 June 1961) published a small work Synchronicity: An Acausal Connecting Principle (Jung 1973). His hesitation to publish this work came from the fact that it did not fit into the causal explanations of nature and the Cartesian divide between outside and inside or matter and mind. According to Jung however 'synchronicity is no more baffling or mysterious than the discontinuities of physics. It is only the ingrained belief in the sovereign power of causality that creates intellectual difficulties and makes it appear unthinkable that causeless events exist or could ever occur' (Jung 1973, pg. 102). To make it thinkable he extended the notion of the phenomenal realm by trying to integrate synchronicity into empiric research. According to him, ESP (extra-sensory perception) and PK (psychokinetic) experiments could provide a statistical basis for evaluating the phenomenon of synchronicity, yet they ignore the importance of the psychic factor in experiences of synchronicity. He then gives the example of the Chinese I Ching oracle as an intuitive and mantic method of divination that starts with the psychic factor and takes the existence of synchronicity as self-evident. However, Jung continues, although the results of the procedures look in the right direction, they do not provide any basis for statistic evaluation. Therefore he looked for another intuitive technique, astrology, which, at least in its modern form, claims to give a more or less total picture of the individual's character. However, when he tested the probabilities of synchronistic occurrences in relations between astrological constellations of birth and the married state of individuals I became lost in his statistical explanations. Generally speaking, I have no expertise to proof scientifically the reality of synchronicity as a principle other than causality in the world. I will therefore not elaborate on this kind of research. I have also put the vast range of literature on analytical psychology (of which Jung was the founder) aside because, again, analytical psychology demands a specific proficiency which I lack.

I have found much help in biographies of Jung that bring the mystical or esoteric dimensions of his personality forward (Dunne 2012; Lachman 2010). The biographies deal with Jung's extraordinary experiences and experiments with dreams and visions, showing very vividly that a person and his or her world consist of more than only visible or sensible things. Related to these biographies are the authors who delve into the (western) esoteric traditions to give explanations on Jung's views and even formulate

methodologies to deal with esoteric experiences and phenomena (Voss, K-C 2011; Voss, A 2009; Romanyshyn 2000, 2013). Others pick up on his examples of intuitive and mantic techniques. Richard Tarnas (2007), for example, demonstrates the synchronistic principle in histories of mankind in relation to astrology. The Japanese philosopher Yasuo Yuasa (2008) and the Korean specialist in religious studies Young Woon Ko (2011) discuss Jung's vision on the I Ching and show how an endemic view of this book can help to understand Jung's principle of synchronicity and even overcome some of its challenges and ambiguities. Another critical study is Main (2004). Only few studies elaborate on the spiritual or religious dimension of synchronicity (Main 2007). This is strange since many experiences reveal the presence of 'the invisible other'. One reason behind this lack might be the fact that these kinds of appearances are kept within a clinical framework as part of the patient's imagination instead of endowing them with an 'objective' or socio-cultural embedded nature. Also anthropological sources are very scarce. I explain this in the problematic Cartesian divide between mind and matter and between the anthropologist and his or her subjects. Ingold's perception of a world without boundaries can bring us closer to the phenomenon of synchronicity although the realm of the unconscious is missing in his work (Ingold 2000, 2007, 2011, 2013). The same applies for Goethe's phenomenology of nature although this approach has helped me to understand and describe my transformations into a new anthropologist in relation to my fieldwork in Madagascar (Mattheeuws 2011). Nevertheless Jung's understanding of the unconscious shows similarities with Goethe's world view. A comparison of Goethe's perception of man and the world with Jung's understanding of the nature of synchronicity is supported by Paul Bishop (Bishop 1999; Gunter 1999), a specialist in German language and literature.

The Jungian Psyche and Synchronicity

Since I am quite unfamiliar with psychology I prefer to initiate my anthropological endeavours into the nature of synchronicity (from a human experiential point of view) with a general formulation of 'psyche'. From Greek origin (psūkhē $\psi\nu\chi\dot{\eta}$, life in the sense of breath) it was first used in English in the 1640's in the meaning of 'animating spirit' (Online Etymology Dictionary n.d.). Mind, soul, spirit and even breath or

life have been used since ancient times, sometimes interchangeable, to denote a part or parts of human features that are not physical. The contemporary definition of psychology as the science of mental functions (thought, perception, emotion, will, memory, imagination, creativity) and behaviour shows that the mind has become the focus of study (first recorded in 1748) instead of the study of the soul and spirit in mid-sixteenth century (Online Etymology Dictionary n.d.). There are attempts, however, to bring the soul back into psychology like James Hillman's archetypal psychology (Edwards and Jacobs 2003) or Romanyshyn's research with soul in mind (2013).

Generally speaking, psyche in the meaning of mind, soul or spirit is seen as opposed to the body following the Cartesian divide. 'The psyche is the centre of thought, feeling and motivation, consciously and unconsciously directing the body's reactions to its social and physical environment' (The American Heritage New Dictionary of Cultural Literacy n.d.). Although the principle of synchronicity reveals the existence of a meaningful relation between mind and matter, Jungian studies on synchronicity also start from the division and explain the bridge of meaning that the experience of synchronicity makes between mind and matter by something apriori and transcending. Jung's psychological model on which synchronicity rests lingers between an empirical and a metaphysical concept (Main 2004). Aziz suggests that there is a distinction in Jung's thinking between the transcendental synchronistic principle and the temporal synchronistic event. The first one refers to the archetypal world of the unconscious in which the categories of space and time as they are experienced by ego-consciousness do not apply. What is a unitary event in the unconscious is refracted into multiple contexts in consciousness, so that the components of the synchronicity are experienced as separated in time and space as well as differentiated into psychic and physical events (cited by Main 2004, pgs. 52-53).

In Jung's psychological model human beings are much more than what is visible and there exists much more than what is known through everyday perception. The world of appearances is only a limited construction of reality. As the (only) way to overcome the divide between mind and matter and to be able to explain synchronicity, the visible and the known must be embedded or nested in something that transcends or that remains deeply hidden as a surrounding. For

Jung, the unconscious of an individual is the larger sphere which includes within it the smaller sphere of consciousness. The collective unconscious is the larger historical matrix in which individual life is embedded.

Consciousness comprises all the experiences, memories, thoughts, imaginings, intentions, and so on, of which the ego is aware. Psychic content of which the ego is not aware, even if they happen to be related to the ego, are unconscious. 'The Jungian unconscious is not some dark basement full of unwanted, disreputable things [as Freud saw], but a living, creative, and often wise partner with consciousness in the business of becoming a fully actualized human being, a partner who frequently knows more than we do and who speaks to us in symbols, those remarkable products of the transcendent function' (Lachman 2010, pg. 202). Jung's psychology is much concerned with the development of consciousness that is, becoming aware of an ever-wider range of one's psychic activity and thereby increasing one's ability to act intentionally in relation to that psychic activity. Synchronicity can enhance consciousness by disclosing its connection both to the unconscious psyche and to the outer world. Although synchronicity is an unconscious act (the experience comes out of the blue, there is no conscious intention and it expresses the perspective of the unconscious) the discrimination and continuity of the ego (the 'me' emerged from consciousness) are essential for the task of interpreting and integrating the meaning of synchronicities. Yet, the limited perspective of the ego can obstruct the realisation of meaning of the unconscious contents emerging in the synchronicity. Synchronicity is normal, but the meaning given can be part of a pathological condition (Main 2004, pgs. 14-15).

Jung accounts for the relationship between consciousness and the unconscious largely in terms of psychic energy (Main 2004). When the archetype is active, there is a lessening of energy of consciousness and a corresponding heightening of the energy of the unconsciousness. Contents are able to flow more readily than usual from one to the other, by which 'intuition becomes activated' (Yuasa 2008, pg. 140). Archetypes are not intellectually invented. The archetypal 'patterns' are to the conscious what the biological patterns are to the body. They are natural (Dunne 2012). Gunter says that for Jung archetypes are primordial images, 'crystallized forms of the libido [in the Bergsonian understanding of life-energies] which lack the libido's pregnant dynamism' as experienced

by artists and mystics. They are forms from the past that render the possibilities of the future and shape the understanding of evolution of both Bergson and Jung (Gunter 1999, pgs. 274-275). Psychic energy exists as a tension between two opposing forces. Opposites 'are the ineradicable and indispensable preconditions of all psychic life' (Main 2004, pg. 20). Most fundamental is the opposition between consciousness and the unconscious. But also synchronicities often manifest according to a principle of opposition. The content of a synchronicity typically expresses a point of view of the unconscious that is opposed to that of the consciousness. In Jung's model, the psyche is considered a self-regulation system that aims to maintain a balance between opposites through the mechanism of compensation very similar to Goethe's notion of compensation and the creation of new organic forms (Tantillo 2002). The idea of compensation makes explicit one of the most important dynamics of synchronicity: synchronistic events compensate a one-sided conscious attitude, thereby relating consciousness to the unconscious (Main 2004). Compensation and the reconciliation of opposites, the self-regulating character of the psyche as becoming a whole, serves the process of personality development that Jung called individuation. 'Individuation is coming to self-hood or self-realisation in which the self is the transpersonal centre and totality or wholeness of the human psyche. It is reached through processes of active imagination, the method invented by Jung to amplify and activate dreams or fantasy images. It is a way of meditating imaginatively, without conscious goal or program, on objective hints being thrown up by the unconscious. Individuation is a process to an acceptance of ourselves as we are, to letting life be (Dunne 2012, pgs. 110-112).

According to the Jungian model, synchronicity 'points to the "psychoid" and essentially transcendental nature of the archetype as an "arranger" of the psychic forms inside and outside the psyche', pointing to its ability to relativize space and time. It can explain 'how a person's mind can register images of things that are simultaneously happening a great distance away or have not yet happened but will do so in the future' (Main 2004, pg. 26). The reason for this capacity is the fact that the archetypes of the unconscious are from an a-priori timeless and spaceless order. They are Kantian noumena (things as they are in themselves) that come to consciousness as phenomena in the shape of archetypal images. Jung explains

knowing the unknown in synchronic experiences by a harmony or correspondence that is at work in the interrelation of both psychic and physical events, in a meaningful arrangement. The subject brings the objective event into a meaning system by meaningfully interpreting the event to the subjects own inner mind. 'The idea is not that the world turns around one person, but rather, that the individual is a participant in, and meaningfully related to, the actual patterning of events in nature' (Aziz cited in Ko 2011, pg. 92).

According to Main (2004), accepting synchronicity simply as the experiential phenomenon of meaningful coincidences or arrangements does not require that one should subscribe to a Jungian psychological model and his concept of causality against which the principle of synchronicity is formulated. Jung used a restricted understanding of causality, namely physical causality. There are other forms of causality like Sheldrake's hypothesis of formative causation, and kinds of causation in Buddhist and Chinese philosophy. The same argument is worked out by Yuasa (2008) and Ko (2011) who are both informed by western and East Asian epistemologies. They accept Jung's understanding of the psyche but explain the Chinese form of causality exemplified in the I Ching (易经, Book of Change) as a means to avoid the idea

of the phenomena and noumena in respectively the archetypal images and archetypes. In their work they interweave traditional East Asian notions of time and space with theories developed by Husserl, Bergson, Heidegger and Prigogine on time-consciousness.

A Chinese Perception of the Cosmos and Synchronicity

Yuasa (2008) and Ko (2011) appreciate both Jung's endeavour to explain the phenomenon of synchronicity. They agree with him that the ideas of the I Ching accommodate indeed non-rational (non-mechanical) phenomena in the concrete empirical world. However they do not follow him when he identifies the I Ching text with the readable archetypes deeply associated with Plato's Idea and the Kantian a priori category because the text of the I Ching does not maintain some form beyond our experiences. Jung's mistake in the context of the I Ching is his emic view on East Asian understandings of (Ko 2011).

In the course of his book on synchronicity and image-thinking Yuasa comes to four definitions of I

Ching divination that touches the core of the matter which should become clear below. I Ching divination is:

A technique of externalizing to conscious awareness the unconscious intuition about a situation in which one is placed in the present.

A method and technique for knowing the future and the past (a working of the mind).

An attempt to know the characteristics of the operation of time that mobilizes all things, changes them and bring them to maturation.

The knowledge of the state of spatial thingevents in the future (or the past) by means of intuition arising from the unconscious.

The I Ching is a text giving the meaning and interpretation of 64 hexagrams that are formed by full (yang 陽, light) and broken (yin 陰, dark) lines. Cast-

ing the I Ching oracle is done by asking a clear question and throwing three coins or manipulating fifty yarrow stalks several times to form one hexagram as an answer on that question (see for example the demonstrations by respectively Hanna Moog and CurledUpWithMachines on YouTube, n.d.). The synchronistic moment is defined in the process of casting when the subjective mind of the individual casting the I Ching oracle is related to the appearance of the hexagram as the objective event. This is certainly obvious when using the varrow stalks. The physical handling of the stalks is accompanied by the working of the unconscious mind. Perceptual consciousness (the ego-mind) and sensory organs (the body) alone do not enable us to understand the future or the past since they register only the present condition of a spatial thing-event. The mode of knowing in the manipulation of the yarrow stalks is identified by Yuasa as intuition arising from the unconscious. Since intuition takes the form of image-experience, Yuasa proceeds to show that the I Ching formalised this imageexperience in terms of the 64 hexagrams. The hexagram that results from the manipulations of the stalks or the throwing of the coins explains the quality of time (chairos) and timing in which the question should be understood. This temporal situation should help the person with his or her decisions. There is a rule by which the I Ching prohibits performing divi-

nation twice over the same matter. Time in the I Ching relates to the issues of making a decision in each specific temporal situation when one is living through one's life. Divination is not established upon causal determinism. Determination is left to the person's free decision. 'Timing' (Middle English: hap as one's luck or lot, occurrence or happening) or the 'situation of that temporal condition' designates the character of each and every situation - how one ought to act in such a situation. Divination is for the purpose of being able to appropriately act, without mistaking the timing, by knowing the circumstances in which one is currently placed. This is also what Zanadroandrena astrology is all about: finding ways to build fruitful relations with all inhabitants of the world by not mistaking the timing in their astrological acts as to create compatible destinies. Encounters that end up in fruitful relations are called anjara, that which a person is allotted (Mattheeuws 2008, pgs. 338-342). In this respect it is worthwhile to mention Joseph Cambray who writes (from the point of view of analytical psychology) that synchronicity may help to detect emergent properties of the psyche (levels of psychological organisation that transcend egopsychology) which can be very transformative. Studies on emergence across scientific disciplines focus on ways in which the order and organisation of various systems can arise spontaneously out of chaotic conditions through processes of self-organisation. Jung's theory of synchronicity is itself a delicate balance of brilliant insight and irrationality - that is poised at the edge of chaos and order. Synchronistic occurrences associated with disturbed mental states may be the psyche's desperate attempt at self-organisation, trying to make links to the external world in a bid to reconnect to life (Cambray 2002). 'Individual consciousness and the unconscious are not closed with the subject level but perform self-transformation through objective events occurring in the continuum of time and space' (Yuasa 2008, pg.151).

The notion of the self in the I Ching is based on the worldview of the East Asian tradition in which the empirical world is not static but continuously moving in correlation of the self and the world. From this perspective, the self is not fixed but changes with the empirical process developed in time. Because the self cannot be simply located at a moment but is involved in the process of change through its relation with the rest of the world, it is not always known to our sensory perception (Ko 2011, pg. 113). Yuasa uses the Bergsonian concept of pure perception (body

separated from the mind) and pure duration (the mind separated from the body) to show that our cognition occurs where the mind as 'pure duration' encounters matter as 'pure perception'. That is when the flow of time is spatialised. This is a characteristic of the cosmos in the Chinese tradition. The Chinese name for cosmos is yǔzhòu (宇宙), respectively the

four directions, up and down and the coming and going, old and new. Space-time for the Chinese is a time-zone. Even though life force (qì 氣) that pene-

trates the cosmos changes its phases in the intimate relation between opposite poles such as yin/yang, mind/nature and feminine/masculine, it nevertheless preserves its quality in a given time-zone, wherein energy of the same quality ties everything together. This implies that in a given time-zone, thing-events appearing far and distant, resonate and harmonize with each other. This is the view of nature on which Jung's theory of synchronicity [should] rest which is very similar to the notion of time-zone in Zanadro-andrena astrology that one can imagine as different things being caught in the same weather circumstances since the Zanadroandrena understand the qualities of the destinies in terms of the weather (Mattheeuws 2011).

The connection between the external world and the internal world is an integrated body-mind matter. Einstein said that the time that is distinguished into past, present and future holds no meaning for science. Time in this sense is an illusion. The distinction of past and present belongs to the problem of the mind, and has no bearing on the laws governing matter. On the contrary, the time of the I Ching is not only psychological but also possesses the characteristic of lifetime, in the German sense of time: Zeit-Zeitig: opportune, well-timed, in time, timely - Zeitigen: to ripen, to mature, to inflame - Zeitigung: maturation, a qualitative time that constantly changes its characteristics. The ancient Chinese view of nature (cosmos) is that it has been filled with all things from the (beginningless) beginning. Yuasa gives the example of a famous Confusianist commentary on the Book of Changes: 'What is above form - this is called the Dao; what is under form – this is called the vessel' (Yuasa 2008, pg. 89). He explains that Dao does not transcend form, but is prior to form, while the vessel designates all the things on the earth (thing-events like utensils, plants, animals, mountains, streams and human beings) receiving the activity of Dao. Opposite to the notions of chaos and cosmos in the west, in

East Asia chaos is in the heavens and the cosmos is on earth, without a clear distinction between them however since the activity issuing from Dao dwells in all things, enabling them to be generated and to go through changes. Hence, Dao or heaven is conceived more as an interior and the epistemological subject as a mind/heart cognition hidden in the background of the self itself. In other words, the essence of time and space must be grasped from the perspective of the total activity found within the interior of the world. Time-space is the life-activity that exists behind all that is formed in the world as a whole. And by descending into the bottom of the unconscious, a person as an incarnate subject can have an intuitive lived experience of that activity.

Nowadays We Only Dream the World of Soul

The arguments of Yuasa (and Ko) centre around the loss of an integrated body-mind vision in the Cartesian divide. The example of an endemic premodernist Asian view of the I Ching makes us aware of this loss, and suggests a different view of reality that connects the external and internal world without the need of a transcendental theory as Jung proposed. As already addressed before, Jung has never been able to get fully rid of the Cartesian divide in his own scientific work. His psychology is haunted by a dualism of inside and outside theorizing in terms of projections. 'It is no surprise to read in Jung that "projection is an ... automatic process whereby a content that is unconscious to the subject transfers itself to an object, so that it seems to belong to the object" (cited in Romanyshyn 1999, pg 43). His initial understanding of synchronicity is also an example of projection that

'rests upon a philosophy of space which separates the inside form the outside, a dualism of interiority and exteriority which identifies the interior with the mind or consciousness and the exterior with the world, a world without qualities, a world drained of its erotic complexities, a world of matter that has been deanimated' (Romanyshyn 1999, pg. 43).

Although Jung was aware that the process of individuation did not happen in the solitary confinement of the Cartesian head, 'he struggled endlessly with the question how to understand 'symbolic life' which

he defined as life that is meaningfully and consciously lived only if our experience has metaphorical and sacred resonance' (Brooke 1999, pg. 23). He has always acknowledged that he had two personalities, an earth-rooted scientific one and a spiritually centred mythical one. The last one became more and more prominent in the process of aging after a midlife crisis and a near death experience caused by a heart attack.

In the period after the break with Freud in 1913, Jung became concerned about his own health because of multiple visions or hallucinations as if something from inside him wanted to break through. Having exhausted what his rational mind could suggest, he decided to do whatever came to him – whatever his unconscious wanted. Among other things Jung had many dreams, visions and fantasies in which strange figures appeared. The most important was Philemon.

In paintings Jung did at the time ... Philemon is depicted as a bald, white-bearded old man with bull's horns and the wings of a kingfisher. In one of the many synchronicities that accompanied Jung's inner journey, while working on the painting, he came upon a dead kingfisher; the birds were rare in Zürich and Jung had never before found a dead one (Lachman 2010, pg. 113).

According to Romanyshyn (1999) 'Philemon is not a projection of Jung's psyche [as he called Philemon himself]; rather, he is an inhabitant of the land of soul'. To Romanyshyn 'a Jungian psychology of projection is at odds with a psychology which acknowledges the autochthonous character of the soul'.

Philemon is indigenous to the psyche, one who from the earliest times belongs to the soil of the soul, part of the tribe of that country there before our time of colonization, that time of ego-consciousness when we have already taken possession of the soul. The subjugation of soul and its indigenous inhabitants, like Philemon, by ego-mind is of a piece with the domination of the native peoples of the New World by European powers. The soul is another country as different from mind as it is from matter, and in this sense it makes perfect sense for Jung to say that Philemon "brought home to me the crucial insight that there are things in the psy-

che which I do not produce, which produce themselves and have their own life" (Romanyshyn 1999, pg. 24).

Corbin, an expert in Sufism, calls this kind of country the mundus imaginalis from his understanding of 'the country of non-where' (transl. of Persian alam al-mithal), a place where 'where' becomes meaningless, at least in terms of meaning it has in the realm of sensible experiences or with the mind. It is a neither/nor world. This country is albeit this form of negation not less ontologically real. The mundus imaginalis is a very precise order of reality, which corresponds to a precise mode of perception, namely the imaginative consciousness or cognitive imagination which can perceive subtle bodies in between pure spirit and material body, hence 'being in suspense' (Corbin 1972).

Philemon is a subtle body which is neither fact (matter) nor idea (mind) but haunts the margins of the sensible world. It is the work of the heart that is neither mind nor eye. Jung's encounters with Philemon suggest the possibility of another way of knowing the world and being in it which has nothing to do with the notion of projection. According to Romanyshyn, Philemon carries us beyond a psychology of separation based on projection into a cosmology of relations based on synchronicities in the later works of Jung. He calls the third form between empirical facts of matter and the ideas of the mind or psychological experiences, metaphors. Philemon is not a metaphor but 'the kind of presence metaphor brings' (Romanyshyn 1999, pg. 45). Metaphor has a neither/nor logic, fitting the experiential realm more than any other description like in the metaphoric description of a purple finch that is 'a sparrow dipped in raspberry juice' instead of an analytical description about a male purple finch that 'has about the size of a house sparrow, rosy-red, brightest on head and rump' (Romanyshyn 1999, pg. 46). A metaphor is a moment of synchronicity and such a moment, as von Franz notes, situates us in the between of the imaginal. Synchronicity is the manifestation of a concrete living principle (cited in Romanyshyn 1999, pg. 53). This concrete living principle is well known by (spiritual) alchemists.

Like in alchemy, a metaphor dis-solves separation between knower and unknown; it holds us in relation with the other without erasing the difference between us. The neither/nor logic

requires that one must give up the notion of being able to attribute with final certainty that the epiphany of meaning belongs either on the side of consciousness as experience or on the side of the world as an event. The density of facts and the clarity of ideas are dis-solved and confused in the softer texture and diaphanous mist of the imaginal. In Jung's view of alchemy, smoke and vapours, dust and mist are the stuff that the soul is made of. The subtle body of alchemy, like the subtle body of metaphor, is the stuff of mood, an ambience which pervades and penetrates the field. The imaginal is neither in us nor in the world. It surrounds us, like light or wind. Philemon in his subtle imaginal body is an aroma, a perfume. Indeed, the work of soul, like that of alchemy, is about dis-solutions rather than solutions. The dream is a nightly alchemical work which dissolves or undoes the fixed solutions of the daily ego-mind. And metaphor does in daylight what the dream does at night. It frees us into the imaginal depths of the world. In achieving (intellectual and factual) clarity, what is lost is the creative tension which reveals the desire, longing, hunger on the part of the spirit to matter, and that equally strong hunger on the part of matter to be in-spired (fragments from Romanyshyn 1999, pgs. 49-59).

Unfortunately Yuasa and Ko do not mention anything about the East Asian understanding of soul(s) whether the capacity of 'seeing' and 'conversing with' subtle images are based on the same kind of intuition as the intuition of the I Ching divination. Furthermore an elaboration on and a comparison of different methodologies for self-cultivation in Eastern traditions, Western traditions or elsewhere exceeds the scope of this paper. However, it is clear from the different examples I have given in this article so far that we need other epistemological claims than the logical and analytical ones to come to an understanding and use of synchronicity because the experience of synchronicity rests upon intuition (active imagination, spiritual imagination, metaphor ...). The growth of consciousness, the work of individuation as 'growth into that which it was from the very beginning' (Dunne 2012, pg. 83) is a historical and evolutionary process that stretches back into the past and ahead into the future. Myths and especially myths of creation are ongoing. My fieldwork in Madagascar shows, for example, that the Zanadroandrena live till today the perpetual cosmogony of their land through astrological practice (Mattheeuws 2008, pgs. 150-156).

On a trip to Taos, New Mexico, a Pueblo Indian Chief, Ochwiay Biano (Mountain Lake), brought the point home very directly to Jung about the European's loss of vitality and a forcing underground of the primitive (I prefer archaic) parts of the psyche.

"See," Ochwiay Biano said, "how cruel the whites look. Their lips are thin, their noses sharp, their faces furrowed and distorted by folds. Their eyes have a staring expression; they are always seeking something. ... We do not understand them. We think that they are mad." ... "They say that they think with their heads." ... "We think here", indicating his heart. ... "[Your] knowledge does not enrich us; it removes us more and more from the mythic world in which we were once at home by right of birth." The raison d'être of his pueblo had been to help their father, the sun, to cross the sky every day (Dunne 2012, pgs. 91-92).

As long as other epistemologies are neglected, there will be realities that remain unexplored, misunderstood or only understood from the outside.

Synchronicity and Anthropological Endeavours

I have come a long way to arrive at this essay on synchronicity. The example I gave at the beginning of this part was the first and maybe far most intriguing experience of synchronicity I ever had at an early stage of writing my doctoral dissertation in 2003, nevertheless stretching out towards my readings on Jung. When I talked about this experience to my mentor in Belgium and my wish to take this experience as a leading thread through the dissertation he declined this proposal saying that "many anthropologists think they have something special after coming from the field". I have no idea how the dissertation would have developed if the proposal was accepted, but I do not regret the delay of 10 years to finally take up the discussion since on my way, or detour if you like, I have met with the work of two scholars who have deeply influenced my thoughts and present standpoint towards the cosmology of synchronicity: Tim Ingold and Wolfgang Goethe. With their work in

mind which helped me understand the astrological practices shaping Zanadroandrena land in Madagascar, I share the East Asian interpretation of Jung's synchronicity embedded in an organic worldview given by Yuasa and Ko.

Ingold's ecology of life is a contemporary approach in anthropology that inquires into the conditions and possibilities of human (and other) beings in the world. He challenges the anthropological claim that only humans are social, producing culture. He also rejects the sociobiological premise that the social attitude is an inbuilt disposition of animal and human individuals, brought out only in the presence of conspecifics. His anthropological explorations bring him into different but related domains in philosophy, geography, history, psychology, biology, and art so as gradually to come to a clear insight into common misconceptions, opening ways for the development of his own arguments and propositions. Addressing the academic community, he adduces many examples of how our thoughts and actions enclose and set us apart because we spend too much time in our rooms, our houses, our laboratories, our disciplines and even our own bodies, while watching through the window, through technical instruments or through our skull to the world behind or outside so that we no longer see and experience what is really happening. He calls for us to go outside again and to reconsider what is understood by "life". While the period before his book The Perception of the Environment (2000) was dedicated to questioning the boundaries between supposedly natural evolution and human history, his more recent research is focused on the boundaries between a so-called solid material world and the moving and active animals (including human beings) whose bodily skills develop from their practical engagement in and with the world (an understanding that had been formed in his earlier work). The result is a description of the world as a meshwork of leaking things which has brought him to his interest in lines (Ingold 2007). The transformations of his paradigms of life-forms from animals, to fungi and then to lines is not a movement from the concrete towards the abstract. He gives many examples of thread-like or trace-like shapes of lines, as the trails that are left by a moving being, the texture of our muscles, the web that is made by a spider or the lines of a written text or drawing. Our own bodily skills of writing, storytelling, weaving, walking, singing, observing and drawing all have in common that they evolve along lines

(although this is often obscured by the way our modern life takes shape).

Can we define his lines as the gestures of the world, its intentions and directions? Can we call these kinds of movements the verbal character of life that talks in all its manifestations? Goethean scientists say that nature appears as a written or spoken text. They bring this verbal character into their theories by using a specific language, drawings or other forms of art. Likewise, Ingold and colleagues are exploring this way of writing anthropology in projects on walking, drawing and knowing from the inside. In relation to my discussion on synchronicity, I wonder if we can understand Ingold's lines as an expression of the primal phenomenon of movement, its linearity. With other words, are Ingold's lines the image of a kind of archetype that has its expression in all kinds of physical and mental forms? In an article 'Ways of mindwalking' 'he compares walking in the landscape of 'real life' with walking in the imagination, as in reading, writing, painting or in listening to music. He concludes 'that the terrains of the imagination and the physical environment, far from existing on distinct ontological levels, run into one another to the extent of being barely distinguishable. Both, however, are inhabited by forms that give outward, sensible shape to an inner generative impulse that is life itself' (Ingold 2010, pg. 15).

Goethean science has its origin in the work of Goethe, who lived two centuries ago at a time when the modern sciences were taking on their present shape. Goethe's approach is a reaction against the evolution he saw in the paths of his contemporaries. Goethe, who saw the earth and the atmosphere as a pulsating, oscillating organism, refused to study nature by first reducing it to a unity of solid bodies to be able to measure it. He describes the scientific investigations he met in his time as bringing phenomena to torture rooms. Goethe saw pulsations not only in the growth of plants, the formation of clouds, or the play of the light, but also in skeletons. He linked the movements of formation and transformation in the bones to the life-style of animals and human beings and later also to the environment. He refused to accept the assumption that human beings distinguish themselves through the absence of the intermaxillary bone which made language possible. When he found that bone, he expressed with great satisfaction and delight that nothing in the morphology of the human skeleton showed any distinction between humans and animals. Humans are intrinsic to the natural world

(Kuhn 1987). Darwinism is sometimes described as a continuation of what Goethe started, but that is incorrect. Goethe always avoided the question of descent since it implied going beyond the appearances of phenomena. Nature as a whole acts like an organism, which includes the ideas of development, procreation, self-regulation and the reproductive ability of nature. The term "archetype", which Darwin borrowed from Goethe (Webster and Goodwin 1996: 111), takes on completely different meanings in Darwin's theory of the origin of species, even to the exclusion of what Goethe was looking for. For Goethe the archetype is the primal phenomenon, the idea of internal law of morphological organisation. This idea is not a physical reality, yet it is present in nature to guide and delimit the formation-drive of the forces giving rise to nutrition, growth and reproduction. For Darwin, archetypes are the effects of natural selection operating on the descendants of a common ancestral form. They are supposed to be real, as the shape of common ancestors (that often have to be guessed, however), of which variations are inherited in the descendant organisms that are themselves passive in the process of evolution. Whereas for Goethe law is in the form, for Darwin the form is in the law. While for Darwin, change must be studied in the law of natural selection, for Goethe, it is in the moving form. Goethe, felt intuitively that going beyond phenomena is a step too far in studying the phenomena. He argued that if we want to study changing phenomena, then we cannot go further back than the moment when these phenomena appear (Kuhn 1987; Lenoir 1987). Apart from the influences of theories of development of his time, Goethe's way of seeing must also have had its source in his writing skills as a poet. The understanding of living nature needs both a living thinking and a living expression by way of figurative language, drawings or sculptures (Root 2005; Wahl 2005; Hoffman 1998; Riegner and Wilkes 1998). Artful creativity should not be confused with the creativity of the organising mind. The latter is the driving force in conventional sciences which brings change upon nature. Artful creativity follows nature's form-giving movements (Hallam & Ingold 2007). Goethean scientists consider Goethe's path as a possible cultural therapeutics to rediscover the right direction of progress and development (Robbins 2005). Many are involved in educational programmes where people can learn to apply the Goethean way of seeing and doing in their daily or professional life. These programmes focus on the development of an

intuitive imagination, which I translate as a living mind, giving the capacity to see the theory disclosed by the studied object in its manifold transformations. For Goethean scientists, the living mind is intrinsically part of the organs of perception that develop and change in what has to become apparent in the process of their generation and growth. According to Goethean scientists, in the research process, that which naturally happens in the world should become a conscious experience. This conscious experience is an understanding that is generated and shaped in and by what we try to understand.

In 'Believing the Malagasy' (Mattheeuws 2011) I explain how the Zanadroandrena, Ingold and Goethe got interwoven in my work in a way I can say that the Zanadroandrena became my eyes (in the way I see the world), Ingold my mouth (in the way I explain the world) and Goethe my feet (in the way I walk to learn). Yet there is something missing: the heart. In 'An Anthropologist goes Weird' (Mattheeuws 2013) I mention that I cannot discuss 'the invisible [real]' with Tim Ingold in relation to his otherwise mindopening work in anthropology. Ingold and Goethe, both advocate a holism that is relational where every phenomenon enfolds its relation to all the others, including the researcher. Knowledge emerges through active, perceptual participation in the coming-intobeing of the world. Knowledge in their approaches is not a subjective state of the knower and is not ontological separate from the known. And finally, they both point in the direction of a relational development of the body, mind and other (physical) beings and phenomena in practical engagements (Mattheeuws 2011). But, I argue, that they do not give space in their research path to the dead and other creatures dwelling in the country of the soul who are also part of the world as exemplified in my encounters for example (Mattheeuws 2013). With other words, they do not pay attention to the (Jungian) unconscious in their research. It is possible that they have never travelled in the country of the soul or that the dead and creatures of the soul have never visited them since this country lay 'beyond' the integrated body-mind perception in research. The same argument can be used to explain why Yuasa and Ko do not talk about the soul in Chinese culture. Does this mean that 'intuition' or 'imagination' have more than one meaning or ground depending on whether they are a faculty of consciousness or unconsciousness. And does this make any difference? In the examples given by Ingold of reciting bestiaries by medieval

monks as perambulatory meditations on the presence of god or of the aboriginal Yolngu reading paintings in a meditative quest for ancestral knowledge and wisdom (Ingold 2010), the monks see the hand of God and the Yolngu initiates see the Dreaming (the activities of the Ancestors). But can they see God or the Ancestors? And how does God and Ancestors become manifest in the writings and paintings? Is it through techniques of 'increased awareness' that opens up the unconscious realm (or spiritual realm) of the artists to render present the inhabitants of the soul (or spiritual world) in their work? Is this awareness the same or different from the experiences of reading? Research on extraordinary experiences might require research techniques that go 'beyond' the integrated body-mind experiences to get a glimpse of the country of soul, such as the creative imagination of Jung, the imaginative approach of Romanyshyn, the intuitive inquiry of Anderson or the transpersonal experience of Laughlin to give only a few examples. But this goes beyond the scope of this article.

Towards and Increased Awareness in the (Anthropological) Academic Curriculum

The tandem essay on synchronicity set off from my personal experiences of synchronicity related to happenings in Madagascar, my study field. These kinds of experiences most often happen during or because of heightened emotion and can be amplified and activated through self-cultivation, or in a Jungian terminology, individuation or self-realization. Would the anthropological academic curriculum become enriched if increased awareness courses would become part of the training? Staying with the example of synchronicity to elaborate on this issue I have the following questions in mind. Is the principle of synchronicity universal? Is the seat of synchronicity the unconscious (as Jung states) and is the unconscious universal to humankind? Is the principle of synchronicity transcendental or not? These questions relate to cosmologies and nature philosophies in which concepts and understandings of life are embedded. Do we need increased awareness to understand synchronicity? This question relates to ways of knowing and their limits. Related to the first two questions is the kind of self-cultivation we are seeking. Does it relate to brain function, to the mind, the psyche, the body, to all of them and how? Do we need theory or practice or both? And finally, how do we relate this to the field where anthropologists often go? How can an anthropologist become prepared enough to go to the field and explore the extraordinary among or with the other? And what happens if the anthropologist comes back?

I have not been able to answer all the questions in this article but I do believe that in certain cases of research increased awareness courses would enrich the curriculum since the unconscious, for example, possesses knowledge unknown to the individual ego. It would also enrich the curriculum as a support for students and researchers in their own experiences that can be very traumatic or difficult. From a holistic point of view of reality where everything emerges in relation to the other, also theory from practice, it is unavoidable that the researcher changes in the process of research. And as my case shows, if the unconscious takes the lead over ego-consciousness also anthropologists need an appropriate guidance as what happens in clinical settings of analytical psychologists. And yet we should not be afraid of the inhabitants of the soul since this country is not as different from the country of the body and the mind as we might think. When I was reading about Jung's understanding of the unconscious and its relation with the conscious mind I recognised much likeness with Goethe's description of the physical world where polarities, complementarities and intensifications are three great driving forces of organic nature. This leads us to the idea that the unconscious is not a weird land outside of ordinary life but yet another manifestation of life itself and ontological not different from the body and mind.

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The Mystical Brain: The Primordial Roots of Religion

Charles D. Laughlin



Religion should connect the rational generality of philosophy with the emotions and purposes springing out of existence in a particular society, in a particular epoch, and conditioned by particular antecedents. Religion is the translation of general ideas into particular thoughts, particular emotions, and particular purposes; it is directed to the end of stretching individual interest beyond its self-defeating particularity.

Alfred North Whitehead, *Process and Reality*

The anthropological study of religion is as enduring as it is difficult to define and research. I would like to briefly describe the strengths and weaknesses of the anthropology of religion, and then proceed to show the ways that the neuroanthropological and neurophenomenological approaches bolster some of the weaknesses in both ethnographic research and anthropological theory construction. I will pay particular attention to how ethnographers may be adequately trained to get at the more critical experiential dimensions of religion, and will argue for the advantages of a mature neurophenomenology. I will conclude with some suggestions about future directions we may wish to consider.

The Anthropology of Religion

From the very beginning of anthropology as an organized discipline, theorists like Adolf Bastian (Koepping 1983), Edward Tylor (1881) and Andrew Lang (1901) expressed a significant interest in religious institutions and their relationship to experiences had in alternative states of consciousness (see MacDonald 1981, Laughlin, McManus and Shearer 1983). Most of the leading anthropological theorists since those early days have published major works relevant to religious studies. Over the years, numerous anthropological studies have broadened our un-

derstanding of religious institutions and practices of all kinds, including the use of psychotropic drugs, myth, shamanism and the priesthood, visions and hallucinations, trance, and healing. As any ethnographer knows, to come anywhere near the life of traditional peoples is to encounter cultural material which in our society we would call "religious." But defining the exact boundaries of "religion" as an operational concept is very difficult. The trouble of course is that "religion" is another one of those Western terms we project onto the multitude of this planet's cultures. The Navajo among whom I lived on and off for years have no such concept. The closest one can come to "religion" in Navajo are words or phrases that mean something like "walking around ritually" and "walking in beauty." Yet we as Western anthropologists have no trouble recognizing aspects of Navajo practice as examples of "religion." Moreover, when Tibetan lamas have passed through Navajoland, they and the Navajo medicine men have no problem agreeing that they are discussing the same thing.

The cross-cultural study of religion is even more difficult to competently research. To get at and understand the core of another people's religious life is the hardest ethnography to accomplish. It is far easier to understand how the local system of intensive agriculture or clan structure works than to appreciate the religious significance of dreams or vision quests. Indeed, the available ethnographic studies of religious culture often leave those of us interested in the deeper spiritual domains of religion profoundly dissatisfied. This is because most classical studies of religion were carried out and reported within a structural-functionalist paradigm which pretty much ignored native experience altogether. Descriptions of religious activities were limited to observed patterns of behavior, symbolism and religious texts couched in terms of "belief systems." Religious institutions were seen as social subsystems that conditioned behavior and belief, and that performed a variety of functions that maintained the greater fabric of the society. Explanations of religion were in terms of an organic model of social and cultural solidarity that had little to do with the natives' own understanding or experience.

Ethnology has always been challenged by the enormous task of "getting inside the native's head" and apprehending events from the native's point of view. Quite often we have taken the easy way out and have restricted our ethnography to descriptions of observations of our hosts' behavior. As a consequence, the ethnographic approach to religion has typically been, as it were, from the outside in. Few ethnographers have taken up the epistemological challenge presented by their hosts' claims to knowledge about the hidden (i.e., the mystical or spiritual) domain of the cosmos and practised the techniques themselves in order to attain the experiences that often lay behind these claims—in other words, few have worked from the inside out.

Of course, some ethnographers have broken through, or attempted to break through to encounter the extraordinary experiences that inform their hosts' religious knowledge (see e.g., Bruce Grindal's 1983 experience of a dancing corpse in Sisala, Chagnon's 1982 experiment with Yanamamo shamanic dance and chanting, Richard Katz's 1982:6 attempts at Bushman trance dancing, Carol Laderman's 1991 profound experience of psychic energy during a Malay healing ceremony, Edith Turner's 1996 spirit encounters with the Eskimo, and Mariane George's 1995 co-dreaming experiences in Barok, Bonnie Glass-Coffin's 2010 twenty years of shamanic apprenticeship in Peru). Yet even when such a breakthrough is accomplished, ethnographers sometimes fail to follow the path very far. In the first place, such transpersonal (or extraordinary; see Coult 1977, Campbell and Staniford 1978, Laughlin 1989a, 1994a, Laughlin, McManus and Shearer 1983, Young and Goulet1994; Goulet and Miller 2007) experiences are usually serendipity, and thus the possibility of entering a developmental progression to the maturation of spiritual experience and religious knowledge is frequently missed. In the second place, the transpersonal experiences they do encounter often produce profound confusion and uncertainty (or worse) in the mind of the ethnographer. Transpersonal experiences are precisely that—transpersonal. They are anomalous to the ethnographer having them and will often bring one's ego and worldview into serious question—sometimes producing serious psychological and social sequelae that may last for years (Glass-Coffin 2010; Grindal 1983).

Even when we have clear evidence of an institutionalized sequence in the development of esoteric knowledge, as with the Telefolmin of Papua New Guinea (Jorgensen 1980), the Baktaman of New Guinea (Barth 1975), the Tamang shamans of Nepal (Peters 1982), the Tukano of Amazonia (Reichel-Dolmatoff 1971), the Dogon of Africa (Griaule 1965), and Tibetan lamas (Beyer 1973, Given 1993, Laughlin, McManus and Webber 1984), there is usually little ethnographic follow-through into the course of mysteries that inform the native understanding of themselves and their world. Few ethnographers give themselves over as long-term apprentices to masters of esoteric knowledge (but see Glass-Coffin 2010; Rodd 2006). Yet information about systems of esoteric knowledge is obviously critical to the understanding of traditional religious life in many societies. In such systems, one becomes initiated into a higher level of mystical understanding as one masters and then "outgrows" the older, lower level. Students of the Western Mysteries traditions will recognize this as the principle underlying the various Masonic Orders.

The phenomenological naiveté of ethnographers of religion is often both profound and systemic. Ethnographers who pay attention only to the visible social structure and behavioral manifestations of religion remind me of that old yarn about the drunk who is stumbling around under a street lamp when a friend walks up and asks him what he is doing. "Looking for my car keys!" exclaims the drunk. "Well," asks the friend, "where did you lose them?" The drunk points off into the darkness of the parking lot. "If you lost them over there, why are you looking for them here?" asks his friend. "Cause the light's better," responds the drunk.

Religion from a Neuroanthropological Point of View

My colleagues and I have been more interested in the esoteric aspects of religion, rather than the more mundane institutional aspects. Moreover, we have developed methodological and theoretical tools that shed light on these more murky areas of human experience. We have also tried to bolster the weaker aspects of the study of comparative religion—namely, the phenomenological naiveté and lack of structural foundation to ethnological understanding.

Our approach is simultaneously neurobiological, phenomenological and sociocultural, incorporating all the avenues of scientific research appropriate to the study of religion (see Laughlin, McManus and d'Aquili 1990:13, Rubinstein and Laughlin 1977). First and foremost, we require that any psychological phenomenon be treated with reference to the neural structures producing it, as well as its sociocultural conditioning and its experiential dimensions. These "windows" onto the scope of inquiry apply especially to religious phenomena in which it is very easy for ethnographers to err by excluding the structural and experiential dimensions.

Our approach to religion begins from a stance similar to that of William James's radical empiricism, a method that requires: (1) that all of the ideas and theories in science be grounded in direct experience, and (2) that no experience be excluded from the scientific purview (James 1976 [1912]; see also Laughlin and McManus 1995). In the present context, it is the second requirement that makes our approach somewhat radical. This stricture requires that experience be the primary locus of research, and not treated merely as a peripheral or ancillary concern (see Laughlin and Throop 2006, 2009; Throop 2000, 2002).

Experience

Experience is the play by which the body enacts the world for itself. The world-play occurs on the stage constituted by networks of neurophysiological structures, the entire set of which we term the sensorium. The on-going, moment-by-moment play of experience is a depiction of the extramental world, or reality. The structures of experience, which we call models, are conditioned in their form and function by the regulation of physical processes in the body. The regulatory function of the organ of experience—the nervous system including the brain-manifests a trade-off between the necessity of adaptation to reality and the necessity to maintain the integrity of somatic organization. Biological organisms naturally strive to autoregulate their activities in a way that simultaneously answers these twin demands—What Jean Piaget (1977, 1985; see also Edelman 1989:151-153) called a dynamic state of equilibration.

The production of experience by the nervous system is a complex during which cells organize themselves under the simultaneous press of genetic

guidance, sensory information, feedback about the cognitive anticipations and the efficacy of its own actions in the world, and the lawful demands of autoregulation. The veridicality of immediate sensory experience is informed from past experiences stored as developing cognitive structures in the nervous system. Over the lifespan, the organism develops an internal experiential world which provides an increasingly more complex informational standpoint from which to act in the world (Piaget 1985:7-10).

The structures mediating experience begin as nascent neurognosis—the initial, genetically determined organization of neurons and support cells during early neurogenesis. Because neurognosis, or neurognostic models, are living cells, they function neurophysiologically as soon as they grow, find their place and become interconnected via reciprocal processes (i.e., axons and dendrites). They function to mediate genetically determined properties of the sensorium (i.e., the mental properties of sensing, perception, cognition, feeling, etc. that make up experience). Neurognosis produces our earliest standpoint with reality, the "already there-ness" of our experience of self and world (Laughlin 1991).

With respect to development, neurognostic structures grow and complexify their internal organization in part from a developmental plan which is inherent in maturation of the body (i.e., "the oak is imminent in the acorn"), and in part from adaptational press of the real world. Neurognosis, I repeat, is an organization of living cells, and thus is subject to the tension between conservation of structure and adaptation to reality. A major orientation of human adaptation is toward the social environment. Enculturation may be understood as the process of socially guiding the maturation of neurognostic structures. At the expense of appearing simplistic, certain neurognostic structures are socially selected for development and other are not (see Changeux 1985, Edelman 1987, Varela 1979, LeDoux 2003 on the neurophysiology of this process). Certain domains of experience are socially encouraged to develop while other domains are ignored or discouraged. There exists a great deal of overlap in the experiences of peoples everywhere, due primarily to species-specific neurognosis developing along similar lines in roughly the same conditions on the same planet. But details of conditioning and the entire complement of experiences may vary drastically across cultural lines, for not only is the general outline of neural development guided by genetics, there is also no such thing as a totally implastic neural

network, and reorganization of neural connections is a major process that makes adaptation possible.

States of Consciousness

Of particular significance to the comparative study of religion is the cross-cultural variance in access to and conditioning of alternative phases of consciousness (dreaming, visions, drug trips, spiritual experiences, etc.). Experience seems to be distributed across a range of states from those concerned with adaptation to the outer world to those depicting relations internal to the organism (Tart 1975). The most common alternation is between what we call waking and dreaming states. In modern Euroamerican cultures, children are taught to disattend their dream states and to focus on adaptational interactions with the external world. Moreover, religious and quazireligious practices geared to accessing alternative states of consciousness are discouraged or negatively sanctioned. Thus Western-style technocratic awareness is primarily concerned with tracking, cognizing and responding to external events in the so-called waking state. Western culture thus tends to be monophasic in orientation, in enculturation, in the development of self-identity and in responses to the world.

The majority of cultures on the planet, however, value access to multiple states of consciousness which are positively sanctioned and enculturated. We term these polyphasic cultures. In these cultures, experiences had in dreams, in visions, under the influence of various psychotropic drugs and herbs, and under various ritual conditions inform the society's general system of knowledge, as well as developing self-identity. The important thing to note is that the human brain is neurognostically structured to experience in multiple states, and not merely in the "waking" states so treasured by materialist cultures such as our own.

Neurognosis and the Quantum Sea

Some people are concerned that a fully embodied view of consciousness, such as the one I am sketching-in here, leaves no room for life after death, or consciousness before birth or conception—that it eliminates the possibilities for the survival of the soul or karmic reincarnation, or diminishes the significance of transpersonal experiences such as near-death or out-of-body experiences. In their concern, people reflect the existential matters of "ultimate

concern" facing peoples everywhere (Tillich 1963, Becker 1973). But such worries arise only as a consequence of reducing consciousness to a mechanistic, materialistic conception of the body (brain) and the physical world, and although such a metaphysical view of the nervous system is common in science, it is by no means the only possible scientific view. Indeed, the impact of modern quantum physics is having a modulating effect upon the more mechanistic biases in biology and neurobiology. Some researchers have related various transpersonal experiences to quantum mechanics (e.g., Puthoff, Targ and May 1981, Walker 1973), and some of us have begun to look at the conscious brain, and particularly its neurognostic structures, as very complex manifestations of coherence in the sea of quantum energies that permeate the entire universe (see Wallace 1993, Laughlin 1996a, Deutsch 1985, Penrose 1989, Lockwood 1989, Laszlo 1995).

Contrary to a materialistic view of the conscious brain, which would of necessity conceive of the individual body as a discrete entity, a quantum physical view requires that a totality of energy relations be considered in any account of the physical body (Schroll 2005). That is, the physical body, including its conscious nervous system, must be considered as a locus of coherence in the sea of energies that are the universe. The direct interaction of neurocognitive structures with quantum events—events that may be distant in space and time (Bohm 1980, 1990, Bohm and Hiley 1995)—becomes possible from this new view. Non-local causation through the medium of the quantum sea might explain a variety of phenomena encountered in paranormal experiences (Barnouw 1946, Long 1976, 1977) and the anthropology of religion, including co-dreaming, certain kinds of magic, remote viewing, archetypal consciousness, telepathy, and so on.

Neurognosis has evolved within the greater framework of the evolution of the quantum universe. It no longer makes sense to consider neurocognition apart from our understanding of the biophysical properties of the universe. Neurognosis, being organizations of cells, is a very complex type of coherent energy, and as a consequence is structured in such a way as to produce not only nascent knowledge about material phenomena of local significance (i.e., space, objects, relations and movements among objects and people, etc.), but also nascent knowledge about the structure of the universe itself (Laughlin and Throop 2001, Schroll 2005). In short, we are born knowing both the world as locality and the

world as universality. The former knowledge results in awareness related to objects in proximity to our senses, and the latter to experiences of the quantum sea as Plenum Void (see d'Aquili and Newberg 1996, 1998, 1999, 2000).

Enculturation into a monophasic culture will encourage development of neurognosis that is important to the adaptation to local material objects and relations, while enculturation into polyphasic cultural traditions may result in more advanced development of neurognosis pertaining to the totality of the quantum sea (however "the sea" may be metaphorically coded by any particular society; e.g., "Holy Wind" in Navajo cosmology, see McNeley 1981). The difference in the kind of enculturation is crucial to understanding why it is so difficult for anthropologists to come to grips with the experiential dimensions of traditional religious life.

Training Transpersonal Anthropologists

The anthropology of religion is systematically hampered by the monophasic conditioning of most of our ethnographers. Competent ethnographic fieldwork, among some religious systems at least, requires nothing less than a trained transpersonal anthropologist (Laughlin, McManus and Shearer 1983, Laughlin 1989a, Laughlin 1994a; LaHood 2007; Rodd 2006). A transpersonal anthropologist is one that is capable of both attaining whatever extraordinary experiences and phases of consciousness that inform the religious system, and evaluating these experiences relative to invariant patterns of symbolism, cognition and practice found in religions and cosmologies all over the planet (Rich 2001).

In keeping with James' radical empiricism, the goal of a transpersonal approach to the study of religion is to understand: (1) the maximum potential genetic and developmental limits to patterns of human consciousness in any and all cultures, (2) the mechanisms by which societies orchestrate patterns of human experience, and the maturation of experience, (3) the mechanisms by which societies produce recurrent extraordinary experiences in some or all of their members so as to enliven and inform their worldviews, and (4) by extrapolation, the possible future evolutionary possibilities of human consciousness (e.g., Laughlin and Richardson 1986).

Transpersonal anthropology is really just a natural extension of the grand tradition of participant

observation that has made ethnology so unique among the social sciences. But it is an extension that requires the ethnographer to "suspend disbelief" in the native worldview to an extraordinary extent and to participate actively in those native procedures that guide one to the extraordinary experiences that give the worldview its spiritual grounding (see Young and Goulet 1994, Hume 2013). Transpersonal ethnography depends upon the researcher being able to apply something like the method outlined by Ken Wilber in A Sociable God (1983:133):

- 1. **Injunction:** Any transpersonal exploration begins with the injunction, "If you want to know this, do this."
- 2. **Apprehension:** The work is done, the "thick participation" carried out, and cognitive apprehension and illumination of "object domain" addressed by the injunction are attained.
- 3. **Communal confirmation:** The experiences attained are checked with those members of the host culture who have adequately completed the injunction and illuminative procedures.

In my own work among Tibetan Buddhist lamas, operationalizing the injunction was relatively straightforward. Tibetan gurus teach by a system of ritual initiations (wang kur) that dramatize the attributes of the focal deity. The deity represents a state, or series of states of consciousness to be eventually realized by the initiate. The initiate participates rather passively in the initiatory drama, but is given more active meditation work to complete in the weeks and months following the initiation. In keeping with many esoteric religious systems, the lama knows the extent of the maturation of an initiand's meditation by the experiences reported back to him as the meditation unfolds. Tantric meditations incorporate such ritual drivers as chanting, percussion, visualization, intense concentration, special diet, fasting, breathing exercises, body postures, etc., that all participate in incubating and eventually evoking transpersonal experiences that become the meaning of the symbolism for the initiand (Wilber's "apprehension and illumination"). Confirmation is attained in dialogue with one's teacher and with other meditators who have undergone the same or similar disciplines. It becomes clear over time that in order to comprehend the meaning of the symbolism, one must do the work necessary to flesh out the experientially rich meaning. In a word, if the ethnographer hasn't undergone the apprehension phase, he or she cannot possibly comprehend the real meaning the symbolism holds for the mature contemplative.

Training in Phenomenology

One reason why anthropologists have so often neglected the transpersonal realm of religious experience is that the culture of science in our age is, and has been for some generations, anti-introspectionist in its positivist bias. This is particularly noticeable today in some schools of cognitive science where introspective methods are still considered anathema. What is needed in ethnology as a counter for this culturallydriven bias is training in phenomenology, especially for those wishing to do cross-cultural research on religious, spiritual and healing systems. Phenomenology is the study of the essential (invariant) processes of consciousness by the application of mature contemplation. Phenomenological training directs the mind inward in a disciplined way. The student learns to direct concentration and inquiry toward his or her own internal processes, be those processes dreaming, bodily functions (such as breathing, movement, etc.), imagery, feelings, thought processes, etc. The training builds habit patterns that counter the naive conditioning toward ignoring or repressing internal processes, and prepares the student for the kind of procedures used in many alien cultural traditions for incubating and attaining transpersonal experiences.

The Ritual Control of Experience

A major focus of our research has been the study of the relations between rituals of various kinds (i.e., performances, festivals, ceremonies, repetitive techniques, myth-ritual complexes, etc.) and experiences which the rituals are designed to evoke (see especially Laughlin, McManus, Rubinstein and Shearer 1986, Laughlin, McManus and d'Aquili 1990, Laughlin 2011). Among other things, we have looked at what Gellhorn and Kiely (1972; see also Lex 1979) termed drivers embedded in the fabric of ritual that operate to trigger neurophysiological structures. A driver may be defined as any recurrent element in a ritual that has a predictable effect upon the operating neural structures mediating experience.

One way to conceive of drivers is to distinguish between those that are extrinsic and those that are intrinsic to the body. Extrinsic drivers are elements such as drumming, chanting, dancing or concentration upon an icon that depends upon external stimuli. Intrinsic drivers such as fasting or breathing techniques occur wholly within the body. Table 1 lists some examples of both kinds of ritual drivers:

| | Examples |
|--|--|
| Intrinsic Drivers | |
| Breathing excercises | Buddhist meditation |
| Auto-rhythms: Chanting | Hindu and Buddhist Mantra |
| Visualization, Vision Quest, Dream Incubation, Fever, Movement, Circadian Rhythm | Tsimshian Shamanism, Iroquois Handsome Lake |
| Fasting, Physical Exertion, Fatigue, Long Distance Running | Tibetan Trance Running |
| Concentration, Directed Attention | Navajo Stargazing, Zen Koan Meditation |
| Seclusion | Tsimshian Shamans |
| Sensory Deprivation | Kogi Mamas |
| Extrinsic Drivers | |
| Rhythm: | |
| Dancing | Bushman n/um dance |
| Drumming, Group Chanting | Tsimshian Healing |

| | Examples |
|---|--|
| Flickering Light, Psychotropic Drugs | |
| lmagery: | |
| Art | Navajo Sandpainting |
| Skrying | Shaman's Mirror |
| Kasina | Buddhist Ten Basic Meditations |
| Mnemonics | Tsimshian Power Songs |
| Ordeal: | |
| Scary Task | Firewalking, Snake Handling, Drinking Poison |
| Pain | Plains Indian Sundance |
| Sweat Bath | Sweat Lodge |
| Performance | |
| Bloodletting | Maya Ritual Blood- letting |

Another way to conceive of drivers, or driving as a process, is in terms of a hierarchy of neurocognitive functioning (Laughlin, McManus and d'Aquili 1990:105, 317). The neuroendocrine system of the human body may be driven from the "top-down," so to speak, by means of symbolic penetration (see Laughlin, McManus and d'Aquili 1990:189-195), whereas symbolic activity mediated by the brain's cortex may be driven from the "bottom-up" by lower neurological, metabolic and endocrine activities—for example, among long-distance runners (see Jones 2004). The driving in either case may be extrinsic or intrinsic. Intense concentration upon a salient ritual symbol may (from the "top-down") result in profound transformation of energy and feeling within the body.

The symbol may be a meditation object out in the world, or an eidetic image constructed before the mind's eye. On the other hand, fasting (intrinsic driving) or ingesting psychotropic substances (extrinsic driving) may (from the "bottom-up") result in significant alteration of sensory and cognitive activity.

The Cycle of Meaning

The sociocultural process of integrating knowledge, memory and experience in groups we call the cycle of meaning (Laughlin, McManus and d'Aquili 1990:214, Laughlin 1997b). A society's worldview is expressed in its mythopoeia (myth, ritual performance, drama, art, stories, etc.) in such a way that it evokes direct experiences in various states of consciousness (see Figure 1). The experiences and memories that arise as a consequence of participation in mythopoeic procedures are interpreted in terms of the worldview in such a way that they instantiate, and thus verify and vivify the society's theory of the world—a theory that frequently posits the existence of what Alfred Schutz (1945) called "multiple realities."

An intact, living cycle of meaning would seem to be a delicate process by which socially shared knowledge is balanced with intersubjective sharing of direct experience, and one that requires change or "revitalization" (Wallace 1966) over time in order for an effective and meaningful fit to continue between worldview and personal experience. The social construction of knowledge and individual experience would seem to be involved in a reciprocal feedback system, the properties of which may be changed by circumstances in such a way that the link between knowledge and experience may be hampered, and even lost. In other words, a religious system may become moribund due to the failure of a reciprocal dialogue between worldview and direct experience.

Many polyphasic societies encourage their members to explore multiple states (dreams, visions, meditation states, drug trips, trance states, etc.) and interpret experiences that arise according to culturally recognized systems of meaning (d'Aquili 1982, McManus, Laughlin and Shearer 1993b, Winkelman 1986, 2010, Laughlin 2011). This process of exploring experiences of multiple realities, combined with social appropriation of the meaning of these experiences within a single cycle of meaning, is typical of polyphasic cultures (see e.g., Tonkinson 1978 and Poirier 2004 on the Australian Aborigines, Guedon

1984 on the Tsimshian in Canada, Laderman 1991 on Malay culture, Peters 1982 on Tamang shamanism, and Schele and Freidel 1990 on the shamanism-based kingship among the ancient Maya). Many societies go so far as to compel initiation into alternative states of consciousness by putting their members through ritualized procedures, including ingesting psychotropic drugs and mandatory vision quests (see Bourguignon 1973, Naranjo 1987). The experiences encountered during these procedures in turn tend to reify the society's multiple reality cosmology.

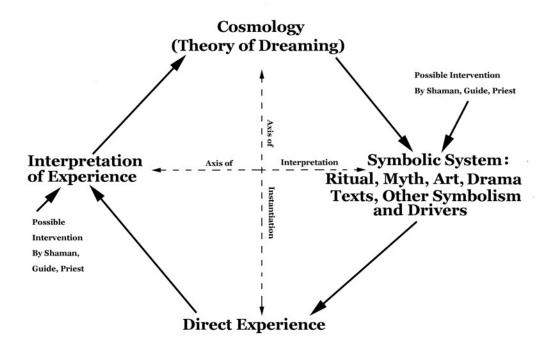
The role of the shaman or ritual specialist in both initiating practitioners into experiences and interpreting those experiences for the practitioner and the society at large is often crucial. In other societies the "shamanic" role may be diffused throughout the population of elders who have themselves undergone the requisite initiations. In still other societies, control of initiation and interpretation may be in the hands of the elders of a secret society. In still other societies, particular individuals may be recognized as especially adept at leading others through healing and other initiatory experiences, and interpreting experiences

that arise of the initiate in dreams and other phases of consciousness.

The Mystical Brain

A central question is, why do so many human societies practice rituals that are clearly designed to alter peoples' normal everyday experience? What is the motive here? As Erika Bourguignon (1973) noted while considering the almost ubiquitous use of psychotropic substances cross-culturally, there seems to be an inherent drive on the part of humans to alter their state of consciousness. Part of the answer, I think, lies in the very nature of the relationship between the world of experience and reality, certain elements of which are universal to all people everywhere. Among other things, traditional religions are concerned with the hidden aspects of reality, the causal forces behind events. Traditional systems operate on the principle that in order to control the visible, the invisible domain of causes must be revealed and manipulated.

The Transcendental



The Cycle of Meaning. The society's worldview is expressed symbolically in its mythopoeia, especially in its ritual, which leads to direct experiences that are interpreted in such a way that the worldview is confirmed and enlivened. Shamans may mediate the process by structuring the symbolic expression and again by helping to interpret experience.

The world of experience, constructed and mediated by the brain, is how we know and experience ourselves and our social and physical world. Our brain is the product of millions of years of evolution to produce an inner "movie" version of reality that is fundamentally adaptive. Yet extramental reality, which includes our own organism, is transcendental relative to our world of experience in at least three senses:

- 1. The sense of part to whole. There is always more to learn about the real world, or anything within it, than any of us can actually come to know. What we come to know about the real world is always and only a partial model. I may know more about toy ray guns (a hobby of mine) than anyone around here, yet there is far more to know that I could ever learn.2. The sense of locality. Our world of experience reflects the fact that we are located in the local environment—a locus in space-time. Thus the demands of adaptation privilege local knowledge relative to universal knowledge. Moreover, our experiences are always intentional, whereas reality is everywhere all the time, and has no intentional focus. We may be watching the TV, but meanwhile an infinite universe unfolds around us.
- 3. **The sense of the invisible.** Most of reality is invisible to our senses, and thus can only be known by inference. We cannot see electromagnetic waves, only their effects once they strike our sense receptors. This is especially true of complex causal processes. Causes may be invisible because the effective elements are too separated in space or time to be apprehended, or they may be invisible because they cannot be detected given the limitations of our senses or technology. We cannot feel the gravitational pull of nearby galaxies, only the pull of the earth, yet both are present in our environment.

The transcendental is mysterious in all these senses. We lose track of the transcendental nature of things when we know something, when we feel we are in control of events, but when we lose that sense of being in control and perhaps enter the vast "cloud of unknowing" that is the beginning of wisdom. Our knowledge, stored in memory—our taken for granted world—always has a horizon (to use Edmund Husserl's term; see Welton 2000: Chap. 15) beyond

which we may discern the great mystery of existence and the greatest challenge to limited ability to know. Most of reality is invisible to direct sensory experience and must be adumbrated and conceptualized or imagined in our ongoing, moment-by-moment encounter with reality. By implication, we are each of us a transcendental being that is forever beyond the grasp of either our own self-knowledge or omniscience about the consequences or our actions upon the world. Our knowledge is to reality as a map is to landscape. However, our experiential "map" is never static. It is rather a living, breathing representation produced by transformations in the organization of living cells that make up our being. At a micro-level of organization, these transformations have their material reality in patterned coordinations among neurons whose initial interconnections are neurognostic, whose eventual developmental complexity will be variable, and whose evocation may or may not be environmentally triggered.

A people's cosmology may be expressed in ritual performances that reveal the normally hidden, causal forces behind matters of vital concern—forces that are considered to be real in the society's worldview and that recurrently tax the limits of our comprehension. Participation in a ritual, either as an actor or as a spectator, may lead to experiences (e.g., visions, enactments, dreams, intuitions, hallucinations, etc.) that reveal previously hidden aspects of the world or our self. In this way, symbolic forms both "come alive" in the experiences of people and accrue socially relevant significance by way of the society's the cycle of meaning.

It is not uncommon for the normal state of the body to be altered in the service of some epiphany, especially alterations of the face, as happens when one participates in a ritual drama while wearing a mask (Young-Laughlin and Laughlin 1988, Webber, Stephens and Laughlin 1983). For example, the Navajo, Hopi, Zuni and other peoples of the American Southwest stage elaborate performances during which masked and costumed dancers enact the various deities described in myth (see e.g., Beck, Walters and Francisco 1990). Masked dancers on the island of Bali in the Pacific are considered to have special powers, that their actual performances may be prefaced by long hours of preparation involving diet, purification and protection rituals (McPhee 1970). The key to understanding such metaphorical rituals is to recognize the reversal of the readily visible normal person to the status of invisible, and of the usually invisible

force (deity, spirit, ancestor, hero, etc.) to the status of visible (see Young-Laughlin and Laughlin 1988).

The Mystical Brain

One point to be drawn from all this is that the human brain is inherently mystical; that is, the human brain is driven by its own inherent structure to know the spiritual, the hidden (see d'Aquili and Newberg 1999:14). The brain is mystical in respect both to its neurognostic structure (we are born to know the spiritual), and to its encounter with the transcendental nature of itself and the extramental world. Again, there is nothing hidden in the universe—the entire universe is all there all the time. The brain is prepared by virtue of its neurognosis to both come to know the self and the world, and to experience the transcendental nature of reality in ways that surpass the normal limitations of either the senses or rational thought. Our brain is embedded in the quantum sea and is a product of the evolution of coherence within the quantum sea. As such, the brain is structured from its earliest period of neurogenesis to intuitively comprehend the quantum sea—the Plenum Void and to reveal that great totality within its conscious processes by way of insight, imagery, metaphor and performance. As my late friend and colleague, Eugene G. d'Aquili would say, we are wired to experience our local environment by way of objects, categories, relations and time, and also wired to know the truth of the universe in the experience of absolute unitary being (AUB; see d'Aquili 1982, d'Aquili and Newberg 1993).

Neurognostic comprehension of the quantum sea/Plenum Void has been an indispensable ingredient in nature's strategy for maintaining the neurocognitive tension between the need for internal conservation of form, and the need to adapt to reality. There are cultures on the planet in which individuals are encouraged to know in both the cosmological and the adaptational modes, whereas most of us in the West have been guided away from the cosmological and in favor of local adaptational way of knowing. Thus, traditions that foster techniques and experiences pertaining to the direct apprehension of the nature of the cosmos—those leading to the state of AUB—are experienced by us as very "exotic" and "mystical."

Sensate, Idealistic and Ideational Cultures

The mystical brain is a major corrective against extremely unrealistic and maladaptive views of reality. As Pitirim Sorokin (1957, 1962) showed us, cultures that are way out on the adaptational pole in their way of knowing (he called these sensate cultures) tend to compensate by swinging back toward a more balanced view in which knowledge derived from the adaptational mode becomes integrated with that of the conservational mode (he called these idealistic cultures). This seems to be happening in Western culture at the present time with the rise of charismatic movements, conversion to alternative Asian religions and the growth of various New Age movements like neoshamanism. The problem, of course, is that cultures never stand still, and the balance struck in one generation between rational and mystical ways of knowing may be lost to subsequent generations in the movement of the culture toward the opposite mystical pole (Sorokin called these ideational cultures).

From the point of view of people in an ideational culture, what we might consider "mystical" knowledge or experience is not mystical at all. It is simply "the way things are." After all, the word "occult" in English just means "hidden from view" or "hard to see." When we experience and comprehend the mysteries, they are no longer hidden, and hence no longer "occult" or "mysterious." The human brain is neurognostically prepared to apprehend the mysteries, but to the extent that we have been discouraged from doing so is perhaps the extent that we must apply effort and exotic techniques to produce the requisite and corrective experiences. It is common among mature contemplatives that the more advanced their meditation skills become over the years, the more subtle their "mystical" experiences become. As Carl Jung occasionally remarked, the more out of touch our ego is from our greater self, the more dramatic may be our calling to the path of mystical awareness.

Conclusion

The mystical brain strives for balance in response to the tension produced by conservational and adaptational forces operating during development. If the press of environmental and social conditions result in an over-emphasis upon adaptational development—which is a condition that seems endemic to the more technocratic of sensate cultures—the inherent processes of biological integration will tend to reassert themselves where possible. Such compensatory activities may be experienced by the individual

as "mystical" dreams, visions and other phenomena—perhaps interpreted as a calling from the depths of the psyche.

This is why something like a monastic subculture emerges in some spiritual traditions. Monasteries are social institutions that minimize the adaptational press so that more energy and attention may be paid to the mysteries. Monasteries are manifestations at the social level of the innate drive of the brain to know the mysteries of existence—the hidden forces of reality—and to commune with totality. More common still are traditions of "retreat" that remove people from the daily grind for a period of time so that the compensatory drive to the mysteries may, however briefly, assert itself.

Of course there are always multiple ways of knowing, of interpreting mystical experiences within one's cultural framework and cycle of meaning. Polyphasic peoples typically have cultures that incorporate a transpersonal cycle of meaning. That is, not only do the people mount symbolic and ritual methods for evoking transpersonal experiences, they also provide interpretations, or models if you will, that are easily projectable onto whatever experiences arise during the process. If you speak in tongues, that is because you are filled with the Holy Spirit. If you dream of a conversation with your long-dead relative, then it is because your relative has travelled from the City of the Dead to impart important information. Such experiences instantiate the cultural theory, because the cultural theory is easily projectable onto the experience. This is the root of all real-life, everyday hermeneutics. In a word, people tend to project their experiences onto extramental reality, and are rarely aware of any distinction between the two.

However it manifests itself, our mystical brain is poised, like the Tarot's Fool, on the brink of our own individual spiritual horizon, neurognostically prepared at any moment to step off into the mysteries (see Ridington and Ridington 1970). The experiences attained in one context become the stuff of good science—good science being dependent upon minds that strive to explain anomalous data. Experiences had in another context become the food of spiritual awareness. Although institutionalized science and religion may appear to represent the opposite ends of a social spectrum, genuine mysticism and good science are not as far apart as many would have us believe(Globus, Pribram and Vitiello 2004). For both mysticism and good science depend upon the unfet-

tered exercise of the mystical brain—the willingness and ability to leap into the great cloud of unknowing.

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The Paranormal Body: Reflections on Indian Perspectives Towards the Paranormal

Loriliai Biernacki



"In the conventions of the intellectual world we now inhabit there is no item of knowledge so solid as a matter of fact."

> Leviathan and the Air Pump, 23 Shapin and Schaffer

I.

We meet here on the edge of the Pacific Ocean to press forward against the edges of a scientifically uncomfortable topic, one where the edges indeed feel a little blurry: the anthropology of the paranormal. We may perhaps even suggest that the word itself, "paranormal," (though not the idea) is conceptually oxymoronic. The "para" fundamentally pointing to the 'beyond' and the "normal" always confining us to the narrow limits circumscribed by that which cannot go 'beyond'. The Oxford English Dictionary tells us that the 'paranormal' designates:

supposed psychical events and phenomena such as clairvoyance or telekinesis whose operation is outside the scope of the known laws of nature or of normal scientific understanding; of or relating to such phenomena.¹

The word "supposed" here no doubt reflects the oxymoronic and uncomfortable emotions the word "paranormal" incites. With this the Oxford English

Dictionary gives us also the word's first use, incorporation into the Merriam Webster dictionary in 1920 and also among other quotes, a salient partial quote by Aldous Huxley in 1955: "[t]wo 'sensitives', one who specializes in paranormal diagnosis, the other a 'healer'." I offer this quote by Huxley in part because of the intimate history Huxley has with Esalen, but also, and more on this later, because Huxley's quote points us towards an idea that I think is key in understanding the relationship the paranormal presents for Westerners living in the 21^{st} century.

The word 'normal' on the other hand indicates the 'ordinary,' 'typical,' 'conventional,' 'regular' or 'standard,' the 'rule' by which we judge. The normal directs us towards normativity, a prescriptive way of encountering the world.³ This mode of normativity, of prescriptive pronouncement on the way things are, as we learn in disciplinary studies, is fundamentally not a productive procedure for an anthropologist to approach a foreign world of study. Rather than a normative or prescriptive, that is, pre-emptive, already decided upon view of what is, instead what is called for in the anthropological study of any new world—and we might argue especially for the paranormal—is a descriptive approach, or even better a 'thick description,' to invoke the ghost of Clifford Geertz.⁴ Of course, we ought not to be blind to the irony of a situation where the paranormal leaks most promiscuously in those sets of texts frequently criticized by Western scholars for their 'normative,' 'prescriptive' accounts of the world, Indian texts, and

https://www.refworks.com/refworks2/default.aspx?r=authentication::init&groupcode=RWUColBoulder

¹ In OED online, referenced 8/28/13:

² ibid.

³ ibid. Also from OED: "Normative: that constitutes or serves as a norm or standard; implying or derived from a norm, prescriptive."

⁴ Clifford Geertz, The Interpretation of Cultures: Selected Essays (New York: Basic Books, 1973), 5-6, 9-10.

here I am looking especially towards Indian Tantric texts, redundant in their "normative," prescriptive, formulaic expressions, and yet bursting out all over with the "paranormal." No doubt, we can probably trace the rejection of using a normative or prescriptive perspective in a social scientific study, or at least a kind of lip service to this notion, to the beginnings of the scientific revolution, where an open-ended discovery of truth formed the basis of the experimental ideal in thinkers like Francis Bacon, who advocated a move away from deductive analysis towards human observation and description, and Robert Boyle, one of the earliest promoters of the experimental way of life. There, the 'experiment' proposed to let nature speak, rather than obscure the truth through all too human intrusions entailed by deductive logic or prescriptive theology or 'normative' expectations of what reality ought to be.5

For this paper I will follow the contours of this ideal of the experimental method and with it propose that the difficulty the scientific West has with the paranormal stems less from a rigorous attention to the experimental method (no surprise here⁶), but rather more from a deficient, too confining, too normal, and normalizing image of the body that our current materialism, buoyed by the initial assumptions of the experimental method, entails. By way of contrast, an opening to a bigger view of what the body is, I will draw from Indian notions of the body, particularly its formulation of the subtle body, sūkṣma śarīra, magical powers (siddhis) and attendant ritual practices, which I suggest are a kind of deliberative practice of fleshing out the nonmaterial. Pun intended. These are what I will here call "cultivated expressions of the paranormal."

Certainly the smallness, the narrow view with which we understand the body today derives from a lack of imagination on the part of a powerful and

dogmatic science of materialism.7 One might even suggest an emotionally driven fear impels a contingency of Western science to deny the blurry edges, the porosity between body and nonmaterial consciousness. The 'paranormal' is thus inevitably an oxymoronic, impossible—and here a nod to Jeff Kripal's idea of the impossible⁸—union of mechanistic matter conjoined with the elusive nonmaterial, nonlocal beyond, which the para of the word 'paranormal' repeatedly, so uncannily and uncomfortably elicits. The idea of the body as mere matter, manipulable and in no way imbued with the mystery of soul or sentient spirit became the 'normative' presentation of the body for an early scientific view, one which prevails still today. Implicit in my argument is the notion that it is precisely the impossible coincidence, the conjoining of both the physical and nonmaterial that brings forth our current society's uncomfortable repudiation of the paranormal. Freud's discussion of the 'uncanny', the unheimlich, is instructive for the paranormal. It is unsettling precisely because it is so familiar.9

To help illustrate my proposal, I will begin with a story, one that draws on a comparative sensibility as a way of thinking through a 'where to?' for tapping into a program for understanding the paranormal. My story begins in the 17th century.

At the very beginnings of the scientific revolution in the middle of the 17th century, a pivotal period for the introduction of a new (our current) cosmological, scientific paradigm, great debates were breaking out across Europe and England over the nature of the vacuum. Aristotle's earlier rejection of the possibility of a vacuum had collided head on with the Church's interpretation of the Bible's act of creation by God out of 'nothing'. Was this nothing a vacuum? Did the emptiness of originary creation contain pneuma? Spirits? Invisible, though still material bodies? Noth-

⁵ Yet, the very idea of the experiment was already deeply ensconced within a particular normative perspective of materialism, a Cartesian expectation that matter be fundamentally distinct from mentality and fundamentally inert, expectations that quantum theory has begun to question.

⁶ A point amply made by *Irreducible Mind: Towards a Psychology for the 21st Century*, eds. Ed Kelly, Emily Kelly, et al., (Lanham, MD: Rowman and Littlefield 2007).

⁷ A representational view of the body can be found in Daniel Dennett's *Consciousness Explained* (Boston: Little, Brown and Co. 1991). By 'imagination' I do appeal to the lyrical outpouring of that earlier Romantic revolt against an overweening materialism in the 19th century.

⁸ Jeffrey Kripal, Authors of the Impossible: The Paranormal and the Sacred (Chicago: University of Chicago Press 2010.)

⁹ Sigmund Freud, "The Uncanny", first published in *Imago*, 5, (5-6), 1919, reprinted in New York: Penguin Classics 2003, transl. by David McLintock.

ing at all? On the surge of a budding mechanistic materialism seeking to overthrow the weight of centuries of apparently nonsensical superstitions, people like Thomas Hobbes argued stridently for a mechanistic view of nature, and with this an explicit materialism as the basic explanatory framework.

Hobbes spent time in France visiting and discussing with Descartes (and also Gassendi) and argued against Descartes' conception of a bifurcation of matter and spirit. Hobbes wanted a totalizing mechanization, one that would rule out the possibility of some unseen component of spirit. Hobbes' plenist view was that the notion of a true vacuum was a fiction; our reliance on our senses, on the visual, was overemphasized, that not all bodies were opaque and even where our human eyes detected emptiness, there was still matter, physical body occupying that space, only one we couldn't see with human eyes. Of course, such a view bore a context, a larger context of the nascent struggles between religious views of a nonmaterial reality and a mechanistic view of nature. Hobbes argued against a vacuum (like Aristotle), and against a biblical reading of nature that proposed that God created the world from a vacuum.

Writing in 1640, Hobbes insisted that men would falsely believe that there were "insubstantial beings" or "spirits." This idea of incorporeal substance was for Hobbes a dangerous idea, smacking of the illegitimate usurpation of political authority by the priestly group. 10 Hobbes didn't reject the Bible's claims of souls and the like, merely the claim that they were fundamentally incorporeal. Soul had no existence separate from the body;11 we might suppose Hobbes would have been comfortable with the notion of the mind as an epiphenomenon. Hobbes, in a decided and committed materialism, also rejected the teleological reasoning of the Aristotelian Scholastics, where bodies ascend or descend because of their fundamental mental heaviness. Hobbes tells us: "as if stones and metals had a desire, or could discern the place they would be at, as man does; or loved rest, as man does not; or that a piece of glass were less safe in the window, than falling into the street."¹²

Wary of an intention-based anthropomorphism, Hobbes' thorough-going materialism recalls in some respects the familiar perspective of many contemporary neuroscientists and philosophers of mind, Daniel Dennett for instance, Richard Dawkins, or cognitive scientist Douglas Hofstadter. And like Richard Dawkins, Hobbes explains this dismal philosophy and sloppy use of philosophical speech as the profit motives of the priests and their allies, the Scholastics. In his 17th century world, though, he still accepts the Biblical precepts, only he understands them to operate metaphorically. In good Protestant fashion, the host is consecrated, but not transubstantiated; no spirits and nothing like "possession" by spirits, and for Hobbes' materialism, it is "nonsense" to say that the soul survives apart from the body at death.¹³

Meanwhile Hobbes had an adversary in Robert Boyle, with whom he engaged in a longstanding debate. However, like Hobbes, Boyle was also convinced of the truth of a mechanistic materialist view of nature. Unlike Hobbes, though, he proposed a somewhat new method for deciding the truth of one view over another. This method came to be called the "experimental" method, the basis of our current scientific program. Boyle used this method as a means to "find out" whether indeed it is possible for there to be a vacuum; Boyle's new method proposed to sidestep the questions of the political and existential meanings of the vacuum and attempted to experimentally prove it one way or the other.14 Boyle's new method involved building an air pump, a large glass ball with a pump attached whereby he could pump the air out of the glass ball to see what might remain with the air gone, to see if indeed there could exist a vacuum. Here the method is neither prescriptive or normative, nor deductive, but rather "experimental." He proceeded to demonstrate the existence of a vacuum by a number of experiments, one of the most dramatic involving leaving a bird in the glass chamber, (which set the stage for the numerous experiments on ani-

¹⁰ Steven Shapin and Simon Schaffer, Leviathan and the air-pump: Hobbes, Boyle, and the experimental life: including a translation of Thomas Hobbes, Dialogus physicus de natura aeris by Simon Schaffer, (Princeton: Princeton University Press 1985), 92.

¹¹ Ibid.

¹² Leviathan, p 678, in Shapin and Schaffer, p. 94.

¹³ Shapin and Schaffer, 95.

¹⁴ Shapin and Schaffer, 41.

mals to follow), which then dies as the air is pumped out. Despite the numerous problems with the idea of whether it is truly possible to conduct an objective "experiment," (I will touch on this further down in a way that is relevant to our purposes here), whether the absence of air indicates a vacuum, whether it is important that the glass chamber leaked, and so on, Boyle's experimental method took hold; it has become the 'normative' scientific model—our 'normative' method for ascertaining knowledge and 'truth.'

II.

Much is at stake here, in a history that fundamentally affects the way we do the kinds of work we do today, and indeed even sets the parameters for what is possible in studying the paranormal. Of course, this experimental method has from its very beginnings incipient biases built into the model, mechanistic and materialist assumptions about the nature of the body and bodies in general. At the heart of the experimental mode is the notion that an experimenter can actually fundamentally be separate from the objects he or she experiments on (albeit post-quantum much criticized). At base then, our standard, normative mode for producing 'truth' relies upon a clear demarcation between our minds and the bodies of objects we manipulate.

For instance, if we return to the originary conflicts around the idea of the vacuum and those insubstantial beings that were such a source of ire for Hobbes, the implications are not so far from the kinds of phenomena we call the "paranormal." Insubstantial beings, ghosts and spirits not following the physical laws we expect, non-mechanical causation, i.e., nonlocal causality, and so on.

To give a sense of other possible explanatory frameworks: meanwhile, elsewhere in the 17th century, across several oceans, in India, we find a very different perspective on what we call the 'paranormal.' In an Indian context it is not so 'para'—beyond the normal at all, but rather an extension of the capacities of the body in its less material, or subtle, in-

stantiations. That is, ghosts, (bhūtas, pretas), spirits of a variety of levels, magical powers, (siddhis) and apparently magical happenings, rainbows in the wrong place, hail or a sudden inexplicable death for instance when none might be expected, a shower of flowers (though no rain of fishes as far as I have encountered¹⁵), are not so much the fantastic stuff of fairy tales and nightmares, but rather an integrated part of the fabric of religious virtuosity. Indian metaphysical traditions across the board sought to explicate these 'insubstantial beings' with something like a naturalistic, that is non-magical, even non-theological, explanation, even if these explanations typically assumed the existence of entities and events not subject to our notions of physical laws. Rather, these other forms of naturalistic explanatory frameworks relied upon a different typology of mechanistic principles and ordering principles. These principles were structured around ideas of a causality of intention—here, in ideas of karma, and also, related to this, in the notion of effects derived from ritual performance, based on a logic of resemblances. What we should note here, contra the assumptions of the early scientific West, is the inclusion of a mental component, intentionality, within the universalizing impetus of a cross-tradition naturalistic explanatory model.

India also bears a crucial difference from the Christian West insofar as it presented a persistently pluralistic religious society. Different traditions with different deities and beliefs, side by side, where no particular religion maintained an exclusive hegemony over others, encouraged an overarching schematization that could account for these differences in a meta-system. To put this in another way, a kind of universalizing explanatory framework was needed, which necessarily entailed a type of naturalism in order to talk across religious belief systems—even as this naturalism presupposed the possibility of *siddhis*, magical powers, different non-embodied entities like ghosts or tree spirits and water spirits (*yakṣas*) and so on.¹⁶

I suggest that at the heart of the difference between these two geographically distant 17th century

¹⁵ See Charles Fort's *The Book of the Damned* (New York: Jeremy P. Tarcher 2008).

¹⁶ In some respects, I suspect this kind of naturalism, or what our materialist biases would understand as a pseudonaturalism, may be similar to the kind of naturalistic, cross-system explanatory schemes that new-agers and the 'spiritual but not religious' employ in the quest for a larger framework that can incorporate the difference of metaphysical systems while not rejecting the experiences of the weirdly anomalous, the non-mechanistic incursion of ghosts and levitating tables.

perspectives is a difference in the understanding of the nature of the body. The Western conception of bodies as basic matter and a wariness to give space to an idea of spirit that Hobbes typifies, or that Descartes works to cordon off from the body as res extensa, contrasts a fundamental porosity, an interactivity between consciousness and the physical that Indian models of the body assume. So we find whole genres of texts seeking to map out the nature of the body¹⁷ in terms of its combinatory mental and physical components. We find this in medical texts and also in the cosmological, philosophical model in Sāmkhya that proposed to map this mix of mental and physical. The model assumes both mental components of the human body—things like mind (manas), and volition (ahamkāra) as well as physical elements like water, earth, as well as perceptual components, like the eye and a capacity for sight, the ear and a capacity for hearing. For a Sāmkhya model, all these components seamlessly integrate within the larger rubric of Nature—and more pointedly, all of these, including mind, are fundamentally a part of matter, as such ultimately insentient. 18 While I will focus here not so much on Sāmkhya's matter-based model, but rather on a general Hindu Tantric model (and there is of course more than one model), it is instructive to point out that even with the fundamentally atheistic Sāmkhya model we see a mixing of mentality and physicality, something we don't find in Hobbes, or Descartes, and

which is implicitly excluded from the premises of an 'experimental' method.

To give a sense of some of the richness and interactivity between mentality and consciousness on the one hand and matter on the other, I offer a few snapshots of traditional Indian perspectives on the body. For instance, we find in an early text, the roughly 2nd century BCE Śvetaśvatāra Upaniṣad this quote: "The soul is born and grows by means of water, food, with delusion, vision, touch and intentions. The soul obtains stable forms in places following its different deeds." ¹⁹ Here the soul (ātman) is fundamentally influenced by food and water, the kind of materiality that we associate with our bodies, but also, the soul grows by intentions and obtains various forms (rūpāni --bodies?) based upon deeds. Even the notion that something like a soul, or conscious self²⁰ is capable of deeds works against a Western sensibility, even a Cartesian notion that preserves both a body and a separate consciousness. Moreover this notion that a body takes form based on something as insubstantial as actions is one that continues through Indian traditions. Abhinavagupta, a Tantric philosopher in the 11th century CE, drawing on this truism of Hindu traditions, tells us "bodies are produced from deeds, actions."21 Of courses this idea shows up probably most famously in Patañjali's Yoga Sūtras, where he tells us that our actions, our karma, determines for our next life our

¹⁷ Here I'm thinking not only of Samkhya which I discuss here, but also Vaiśesika and early Buddhism.

¹⁸ Sāṃkhyā Kārikā v.19-20, translation in Gerald Larson, Classical Sāṃkhya (Varanasi: Motilal Banarsidass 1969), 264-265.

¹⁹ Śvetaśvatāra Upaniṣad V.11: saṃkalpanasparśanadṛṣṭimohair grāsāmbuvṛṣṭyā cātmavivṛddhijanma / karmānugāny anukramena dehī sthāneṣu rūpāṇy abhisaṃprapadyate //

²⁰ Even if we follow Patrick Olivelle's interpretation of *ātman* as body in Patrick Olivelle, *The Early Upanisads-Annotated Text* and *Translation* (New York: Oxford University Press 1998), still in any case the mix of registers from body to intention demonstrates my point.

²¹ Abhinavagupta, *Īśvara Pratyabhijñā Vivṛti Vimarśinī*, (ĪPVV hereafter), in the Kashmir Series of Texts and Studies, 3 vols.; edited by Paṇḍit Madhusudan Kaul Shāstrī. (reprinted, Delhi: Akay Reprints, 1985), vol. 3, 284.

species-- that is, our bodies-- along with our life span and pleasant and unpleasant experiences.²² So, not so much a model of parental inheritance, though this is not entirely absent, this ubiquitous Indian notion routinely assumes a link between our mind states, our food and deeds and the physical body.

An even earlier text, the roughly 6th century BCE *Taittirīya Upaniṣad* proposes a model of bodies within bodies, evolving in an evolutionary scheme from self or soul (ātman) into space then air, fire, water and earth. Like the Russian dolls that contain one inside the other, with this model we find a series of bodies encapsulated within one another consisting first of the physicality of food (annamaya kośa), but then contained within sheaths of different layers also a body of breath (prāṇamaya kośa), a body made of mind (manomaya kośa), a body made of intellect (vijñānamaya kośa) and a body made of bliss (ānandamaya kośa).²³ All of these are bodies and all these bodies link together to make you and I, familiar human bodies.

We also find an entanglement between the physical and nonmaterial in a different way, in the Jain notion of the soul being burdened by the weight of the bad karma of a person. Here one pervasive remedy for lightening the load of the soul is to pull out one's hair. This very physical substrate of our bodies, our hair, carries the weight of the insubstantial, of former deeds,24 and with this a mixing of the physical and the mental. Hair can hold the imprint of consciousness.²⁵ Also we should keep in mind the widespread pervasive belief in an Indian context in reincarnation—even with Buddhism, which is at pains to deny a notion of a soul (the key Buddhist doctrine of anātma). With this we find across these traditions a notion of insubstantial body, the subtle body, sūkṣma śarīra, which is what retains both memories and an imprint of our deeds as we go from one reincarnation to the next, even for a tradition like Buddhism, which has no use for a 'soul'. These subtle bodies sound uncannily like the folklore of ghosts.

My point here however, is that with this notion, an Indian context incorporates a bigger, wider view of the body. The body is not just the physical congregation of cells, the plenitude of bacteria and viruses that co-exist within our physical frames, with bone, muscles, water, brain mass and so on. The body also consists of mental components, and other nonphysical components, which nevertheless retain some of the capacities we associate with our physical bodies including a capacity for sight and movement and thought. This added nonphysical body is still connected to our physical bodies and registers the experiences that our physical bodies undergo. I am reminded here of Jim Tucker's research on reincarnation cases in which he discusses the phenomenon where injuries to one incarnation, a bullet wound in the shoulder, show up in the next incarnation as a birthmark and often pain associated with the previous life's injured areas.²⁶ nonphysical body, the subtle body, interacts with the physical body, feels the pains of the physical body and is also separable from the physical frame and capable of traveling away from the physical body and then returning to it.

So, in our Indian context, for instance, we find in the *Tripurarahasya*, another 17th century text,²⁷ a tale of a king who wants to enter inside a mountain. The sage with him tells him to put his physical body in a nearby cave, so it will be safe, and then to use his subtle body to enter inside the mountain. The king does not know how to do this and wonders if he will die if he leaves his physical body. (No doubt across the ocean Hobbes would have agreed.) The sage

²² Patañjali, Yoga Sūtras 2.13.

²³ Taittiriya Upanishad, 2.1-2.6

²⁴ This does sound not so far off from that common English expression, the "weight of one's sins," suggesting perhaps this other notion of a mixing of these registers as part of a popular sensibility.

²⁵ See for instance, Alf Heitelbeitel and Barbara Miller, eds, *Hair: Its Power and Meaning in Asian Cultures* (Albany: State University of New York 1998).

²⁶ Jim Tucker, Life Before Life: A Scientific Investigation of Children's Memories of Previous Lives (New York: St. Martin's Press), 2005.

²⁷ *Tripurarahasya*, 12:v.71-96, in Kashmir Series of Texts and Studies, vol. 25, Srinagar, also with translation *Tripurarahasya*, transl. by Swami Sri Ramananda Saraswathi (Tiruvannamalai: Sri Ramanasramam 1989). It may be possible to date the *Tripurarahasya* to the 16th century or earlier than 17th century; commentaries are dated to the late 18th and early 19th centuries.

laughs, instructs him to close his eyes, and then the sage enters the king's body and separates the king's subtle body from the gross physical body. The sage puts the physical body aside, safe in a small pit. Here we can imagine the king may be walking around like a medium, possessed, like Mrs. Piper as the sage controls his body. The sage then travels with his own subtle body and the king's subtle body to the interior of the mountain. When the king manages to recover a sense of consciousness, the sage gives him a subtle body that the sage makes for him, since the king has not really figured out how to make his own subtle body at this point in his life yet. Inside the mountain the king sees a whole new universe created by the sage's mind, with planets, a solar system and so on. When they get back outside the sage puts the king's subtle body back into his physical body and wakes him up.

We see with this both a physical body and a subtle body. The two are connected but separable. They mix and interact with each other. Both of these bodies are really bodies, part of the framework that makes up the body as a whole and there is a porous interface between the physical and the nonphysical body. What is especially interesting in this story is the need to make a suitable, travel-ready nonphysical body. The king doesn't have a suitable subtle body for travel because he hasn't made it yet. He needs a good subtle body, which the sage makes for him. We see a similar story in the much earlier, well-known turn of the first millennium epic, the Mahābhārata, where Vidura, an intelligent character skilled in yoga enters into the body of Yudhisthira, the eldest of the five brothers who are protagonists of the epic. With this mixing of one consciousness in another person's body, like Spock's mind-meld, Yudhisthira is able to access the wisdom Vidura has. Similarly in the approximately 14th century Śańkaradigvijāya, the sage Śańkara also uses his subtle body to leave his physical body and then inhabit the body of a newly dead king, so that he can win a debate with his philosophical opponent Maṇḍana Miśra.²⁸ His goal here is to use the dead king's body to experience what sex is like and at the same time not be guilty of breaking his celibacy vows as a monk. I should note again that these incidents are not portrayed in these stories as against the workings of nature, as taboo or as 'paranormal.' Rather they reflect a skill set that comes with recognizing that the body has wider parameters and wider capacities than what we associate with just the physical body.

Within a variety of Tantric systems in India we also see a much greater refinement and mapping of the notion of the subtle body. Firstly, the subtle body gets much more delineated. We get the cakra system, which has become a popular mainstay of new-age movements in the West. (There are multiple systems in India typically incorporating from four to twelve cakras, and in some systems even more.) The familiar and popular image of six cakras with the addition of an expanded center at the top of the head as the sahasrāra derives from a likely sixth to eighth century Tantric system known as the Kubjikamāta, the western tradition (paścimāmnāya). We also find the idea of subtle channels of energy flow in the body, the nādis, which are integrated with the spine and perhaps the nerves, but distinctly separate from them. These also form a part of the subtle body and carry prāṇa through the body. This term, prāṇa, itself particularly exemplifies the interactivity between the physical and the nonmaterial components of the body. Prāṇa is air, a physical substance, if elusive; it is what Boyle pumps out of the glass globe in his radical world-shifting experiments. However, it is more than air; it is also a kind of subtle life force that connects the subtle body with the physical body and exists beyond and apart from air.

Secondly, the subtle body gets fundamentally connected to ideas of sound, especially sound as vibration, as *mantra*. Here again, this sound has both physical and non physical components. *Mantra* as sound is audible, at the same time in its more powerful rendition, there is no audible sound connected with *mantra* at all; it is rather a subtle vibratory frequency without a physical counterpart. It is what makes up the bodies of deities.²⁹ Also, these

²⁸ Mādhava Vidyāranya, *Śankaradigvijaya* (Śrīrangam: Śrīvanivilasamudranālayah 1972).

²⁹ Lakṣmīstotra, v.4: "O Goddess, your body is the mantra" in *Bṛhadstotraratnākāra*, ed., Śivadatta Miśra Śāstrī (Varanasi: Jyotisha Prakasha 1997), 258.

vibratory frequencies, which do not have physical or audible sound attached do nevertheless transfer through physical substances. *Prasad*, a food substance, for instance a banana, which has been transformed by ritual performance, especially including *mantra*, carries a subtle energetic signature that is not physical, but nevertheless changes the nature of the banana, even apparently makes the banana tastier by some reports.³⁰ This same type of subtle property is also what makes relics so powerful. The good luck or magical property of the relic clings somehow to the physical object.

In a fairly definitive Tantric depiction of the subtle body, Abhinavagupta tells us that the subtle body "is like the physical body, but it does not have limitations in terms of its spatial dimensions."31 It is also not bound by the divisions of time into past and present, though it is still connected to time as a universal.³² In Abhinavagupta's influential 11th century schematic, the subtle body (puryaṣṭaka) is composed of eight components: first, the five vital breaths, called *prānas*. These are the in-breath, the out breath, the upward breath, the downward breath and the breath which mixes all of these. This makes five of the eight. Along with this is the antaḥkāraṇa, the inner organ, subdivided into three, including the mind, the intellect and the ego. Finally, two more are added to these six to make eight. These are the two groups of sense organs, the buddhīndriya, including the ear for hearing, the nose for smelling and so on, and the karmendriva, the group of organs of action, which includes the hand, the foot, the sex organ.³³

So the subtle body is rather like a physical body, even containing as essence or template, if not actually corporeally, hands and feet and genitalia.³⁴ Thus the subtle body, that component of ourselves which reincarnates, takes on a new body still has a basic bodily

shape, with subtle feet and hands. It is not bound by space and minimally bound by time. Starting to sound quite a lot like a ghost? Moreover, it is precisely the interactions of the physical body with the subtle that affords the manifestation of what we consider the paranormal. By working to develop and refine the subtle body and the interactivity between the subtle and the physical body, the practitioner develops capacities beyond normal bodies, magic, paranormal powers, the *siddhis*. These include telepathy, telekinesis, a capacity to effect changes in weather, all stuff right out of the X-men.³⁵ Again, it is important to emphasize that the paranormal occurs precisely through the interactions between the physical and nonphysical bodies.

We also find in a variety of Tantric texts, and I especially reference here the 17th century Tantric texts from eastern Indian that focus on left-handed or illicit techniques, methods prescribed, handbooks, we may say, for developing these paranormal powers, siddhis. One of the most pervasive practices is one designed especially to accentuate the interactivity between the physical body and the subtle body. Called nyāsa, this technique entails ritually inserting subtle body energies, in the form of monosyllabic mantras, though often without pronouncing these sounds out loud. This mental insertion of subtle body energies works to transform the physical body into a supercharged, superbody, by enlivening the subtle body via the subtle vibrations of the unspoken mantras. Most Tantric ritual performances, regardless of the deity invoked, utilize this preparatory establishment of an interface between the physical body and the subtle body in order to generate paranormal powers, siddhis, with other specific ritual practices. These practices are physically oriented; they require for instance physical gestures, yet the import is to de-

³⁰ Oral information relayed by with a contact connected with the ISKCON movement.

³¹ IPVV 306.

³² IPVV 306.

³³ IPVV 334.

³⁴ Abhinavagupta emphasizes that this subtle body is really a body. He tells us, "the City of Eight does in fact have the nature of a body, because the great elements, [fire, earth etc.] inhere in it, [via the connection of the subtle elements to the sense organs]. Here, in order to remove delusion, [Utpaladeva] uses the word "body" [to describe this extremely subtle state, the City of Eight] precisely to instigate [the reader] to voice doubts about the nature of this body and the applicability that the word "body" [with its physical implications] entails for this subtle existence." IPVV, 306.

³⁵ See for instance Anonymous, *Bṛhannīla Tantra*, Paṭala 6, Ed. Madhusudhana Kaul, (Delhi: Butala and Co. Publishers 1984).

velop an interaction between the physical body and the subtle body. They emphasize the porosity between the physical and nonmaterial components of the body. These types of practices, pervasive through India, historically entail a kind of cultivated expression of the paranormal. Tantra sets about to systematize the mechanisms for generating interactivity between the subtle body and the physical body and with this attempts deliberate, experiential, if not experimental, replication of paranormal incursions.

III.

To return to our story of the 17th century use of experimental science, what are the differences between the 17th century deliberate cultivations of the paranormal, these attempts to codify, replicate and manipulate the paranormal in India, and the 17th century deliberate experiments with the air and the vacuum in England? Historians of science Shapin and Schaffer suggest a number of factors contributed to Boyle's success in establishing his new experimental method, including political factors, Boyle's emphasis on the public nature of the knowledge derived from experiments, among others. One factor, however, is worth examining in relation to the differences we see in the idea of the body across these continents. That is, Boyle's emphasis on the use of machines facilitated a shift in understanding the idea of objectivity. Boyle writes "that the Informations of Sense assisted and highlighted by Instruments are usually preferrable to those of Sense alone."36 Shapin and Schaffer point out that the machine constitutes a resource that factors out human agency in the product.³⁷ The machine adds a capacity to see without the interpreter's lens; the use of a machine proposes to achieve an objectivity that human senses cannot obtain.

This emphasis on the power of the machine for determining "truth" has only heightened over the last three centuries. And, of course Galileo's use of the telescope to point out the several moons of Jupiter and the craters on the moon also operates on this principle. What the machine does for both these cases is to increase the capacity of our senses, in a way which apparently edits out the subjective, mental component of human sensitivities. Indeed the big debate of the vacuum in the 17th century may be framed as what do we do with the things our eyes cannot see, the insubstantial bodies that may be lurking in the empty glass jar? The use of instruments takes this in one direction; for instance the microscope allows us to see smaller and smaller entities, the germs that our eyes don't see, but which certainly affect our guts. The traditional and new-age exploration of the paranormal seeks to expand our vision in a subjective framework, incorporating emotions and intentions. These are the 'sensitives' that Huxley associates with the paranormal. Notably Huxley's 'sensitives' retain the incorporation of mentality, consciousness to improve their senses, precisely what the machine factors out. The senses of these paranormally attuned individuals are also heightened. They can 'see' things that ordinary human eyes miss. They also often intermix sensory apparatus; (there is a growing body of literature on the connections between synesthesia and paranormal abilities), again pointing to that other body, the subtle body, as also a capable instrument for 'sensing' that which is difficult to sense with basic physical body.³⁸ We see this seeping even into the realm of the paranormal. The humor of Men in Black, Ghostbusters both rely on an excess of instruments, gadgetry, typifying the 21st century response to that which can't be seen and following in a sense on Boyle's programmatic use of instruments to refine human senses. We can compare this with the priest's holy water and crosses for an exorcism. In the latter, the implements themselves are imbued with a cross-over of subtle energy, unlike the mechanical sensitivity of a ghostbuster's tools.

The shifts in the 17th century have left a mark. My engineering and physicist colleague at Colorado, Garret Moddel, who works on the paranormal, psi and related phenomena opened a recent article with the following statement:

³⁶ In Shapin and Schaffer, 36.

³⁷ Ibid, 77.

³⁸ See for instance, Richard Cytowic and David Eagleman, (2009). Wednesday is Indigo Blue: Discovering the Brain of Synesthesia (with an afterword by Dmitri Nabokov). (Cambridge: MIT Press 2009).

The ideal experiment is one in which humans are not involved. That was my approach when I started researching psi (precognition, telepathy, clairvoyance and psychokinesis), just as for other physics and engineering fields in which I had carried out research.³⁹

The current president of the Society for Scientific Research, one of the larger organizations devoted to exploring the paranormal, Moddel reflects our larger society's reliance on the machine, even as he represents a contingency of scientists remarkably openminded towards the possibility of odd things out there, the 'paranormal'. In the experiments documented in this article Moddel attempts a variation on the well-known psi experiment, where humans (mostly all of us, not just the 'sensitives') register a precognitive awareness of a disturbing loud sound about to happen in the future, before it actually happens. We all seem to be able to see about two seconds into the future. In Moddel's variation, rather than human subjects he uses computers as subjects, and the counterpart to the disturbing loud sound is pulling the plug. Will a computer register a precognitive disturbance one or two seconds before its power source it taken away, a kind of fear effect that it will imminently die? Moddel's idea is that if he could get a psi effect from a machine, then psi is clearly a real phenomenon, locatable outside the subjective purview of human personality and intention. (Nevermind that other less tolerable interpretation, where it may be that computers are also capable of sentience⁴⁰) This, of course brings up a number of issues, many of which we cannot address here. While Moddel's data registered a significant statistical effect initially, in the end he chalked it up to the experimenter effect, where the experimenter's desires somehow (magically?) influence machines. For our purposes, I use this to note the bias towards the machine as bearer of truth because it is considered devoid of mentality, consciousness. Fundamentally, this suggests that the very means that 17th century Indian Tantrics employed to interface with that other part of the body, the subtle part, will tend to be systematically discounted, precisely because it is generated through means of mentality, intentionality, because it operates from a different premise, this older Indian notion that mentality, consciousness are fundamental parts of the body, of matter.

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³⁹ Garret Moddel, "Building a Prescient Machine," *EdgeScience*, #11, June 2012, pp10-13. Web link: http://psiphen.colorado.edu/Pubs/Moddel12a.pdf.

⁴⁰ The key here in this anecdote is the presence of erotic charge. We should also keep in mind the role of the erotic in Daryl Bem's recent experiments, documented in Daryl Bem, "Feeling the Future: Experimental Evidence for the Anomalous Retroactive Influences on Cognition and Affect," *Journal of Personality and Social Psychology*, 100 (2011), 407-425. Also, Jeff Kripal (personal correspondence) has noted the particular force erotic charge has towards a development that entails the occurrence of the paranormal. It is not an accident that sexual rites figure so prominently in Tantric rituals designed to engender *siddhis* and the paranormal. There is much more to say on this, but this is another, different, paper.

A Case of Xenoglossy Occurring Under Hypnosis¹

Ohkado Masayuki & Okamoto Satoshi



Abstract

This paper reports a case of xenoglossy occurring under hypnosis, in which a Japanese woman recalled past-life memories as a village chief in Nepal and talked with a Nepali speaker in Nepali, a language which she has no knowledge of in her normal state. The utterances the subject made are linguistically analyzed and fieldwork in Nepal was conducted in order to verify her statements.

¹Introduction

Responsive Xenoglossy, which is important in the sense that it provides potential support for survival over super-psi hypotheses (Ducasse, 1962; Stevenson, 1974, 1984), is a rare phenomenon and as far as we are aware, there are only two well-documented cases occurring under hypnosis, both of which are reported by Dr. Ian Stevenson (Stevenson, 1974, 1984).² This paper reports another case of xenoglossy occurring under hypnosis. Although our case shares some of the weaknesses with the two cases reported by Dr. Ian Stevenson (cf. Thomason, 1996), taking into considerations the condition of the subject and the linguistic distance between the subject's native tongue and the language spoken under hypnosis, it can be regarded as presenting a stronger piece of evidence for the paranormal nature of the phenomenon.

Fieldwork was also conducted in Nepal to verify the subject's statements concerning her past-life. Although the past-life personality was not identified, it was found that the subject's statements matched the life and customs of the place where the previous-life personality was considered to have lived.

The Subject

The subject is a housewife who lives in central Japan. Her native tongue is Japanese. She majored in home economics when she was a college student and had some experience working as a dietician. When she was 47 years old, due to physical problems and difficulties in her household, she sought the help of a hypnotherapist. In the 70-minute hypnotic session conducted on June 4th 2005, she recalled "past-life" memories as a village chief in Nepal.³ She gave some proper names and some information about her village life. In response to the hypnotherapist's request to speak in Nepali, she uttered two non-Japanese sentences. The hypnotherapist's attempt to verify the information the subject gave during the session was not successful and experts' opinion about the two seemingly Nepali sentences was 'unidentifiable.'

¹ The present research is partly supported by Chubu University (Chubu University Grant A, 22IL.05A). We are deeply grateful to Inagaki Katsumi, Dr. Suetake Nobuhiro, and, especially, the subject. Portion of this paper was presented at the 29th and 31st Symposia of the International Society of Life Information Science (ISLIS) held in Yokohama National University (March 20th, 2010 and March 19th, 2011, respectively), and the SPR 35th International Annual Conference held at University of Edinburgh (September 3rd, 2011). We would like to thank the participants for their invaluable comments. We are also grateful to an anonymous reviewer for his/her helpful comments on an earlier version of this paper. The present case is also reported in Inagaki (2010) and Ohkado (2011) in Japanese from different angles.

² There are two thoroughly researched examples of possession-type responsive xenoglossy (Stevenson, 1984; Barrington, Mulacz, and Rivas, 2005). We are not sure whether these cases should be treated on a par with the cases of xenoglossy occurring under hypnosis. See Stevenson (1974, 1984) for some discussions about possible differences.

³ The regression therapy conducted by the therapist is a unique one called SAM (Soul Approach Method), which is based on a specific theory of the structure of human consciousness (cf. Inagaki 2006). In the first session in which the subject recalled the past-life as a Nepali village chief, she was guided to recall a past-life which was supposed to be relevant to the problems in her present-life. In the session we report here she was guided to recall the past-life as the village chief.

Reading a report written by the hypnotherapist (Inagaki, 2006), we borrowed the audio data of the session and examined the contents including the two sentences with the help of three native speakers of Nepali. The three Nepali speakers judged that the two sentences were indeed Nepali and that some of the proper names given by the subject sounded familiar to them. Upon our request the subject and the hypnotherapist agreed to have another session, which took place on May the 9th, 2009. The session was attended by a Nepali speaker, Paudel Kalpana, a graduate student of Asahi University.

Results of the Session

The subject was able to communicate in Nepali for about 24 minutes till the hypnotherapist decided to terminate the session because the subject became tired and less responsive. The conversation data was transcribed and analyzed with the help of Ms. Paudel Kalpana, who talked with the subject in the session, and Dr. Khanal Kishor Chandra, a visiting researcher of Chubu University. Detailed grammatical analysis from the point of view of Nepali linguistics was undertaken by Professor Kiryu Kazuyuki of Mimasaka University.

The subject's statements concerning her "past-life" as a Nepali village chief named Rataraju are summarized in Table 1.4

Table 1 Summary of the Subject's Statements

| his own name | Rataraju |
|-----------------------|----------------------|
| occupation | chief of Nallu vil- |
| | lage |
| wife's name | Rameli |
| son's name | Kujaus |
| daughter's name | Adis |
| father's name | Tamali |
| tribe (of his father) | Tamang |
| village chief when he | Kira |
| was still young | |
| food | lentil, rice, millet |
| number of villagers/ | 25 |
| households | |

| funeral | (going to ?) Hima- |
|---------|--------------------|
| | laya, cremation |

Overall impression of the two Nepali speakers concerning the subject's ability to speak Nepali is that, although far from the level of native speakers, she did have some command of the language. Attempting to quantify that impression, we divided the data into 81 chunks and analyzed the first 70, chunks 71-80 being excluded because the subject's response was very weak, probably due to fatigue. The results are given in Table 2.

Table 2 Analysis of the Data by Chunk

| Conversation | 27 (38.6%) |
|---------------|------------|
| Established A | |
| Conversation | 26 (37.1%) |
| Established B | |
| Inappropriate | 6 (8.6%) |
| Responses | |
| Ambiguous | 11 (15.7%) |
| Total | 70 |

The "Conversation Established A" chunks are illustrated by the example where in response to the question "Tapaiko nam ke ho?" (What is your name?), the subject said "Mero nam Rataraju" (My name is Rataraju). In this example, the subject appropriately answered the question.

The "Conversation Established B" chunks are illustrated by the example where in response to the question "Kati barsa hunu bho?" (How old are you?) the subject said "Ke?" (What?) or the example where in response to the question "Gharma shrimati hunuhuncha ki hunuhunna?" (Is your wife at home or not at home?), the subject said "Bujina" (I don't know). In these examples, although the subject answered the questions in Nepali, she might not have understood the questions. One can pretend, at least for a short period of time, that he/she has some command of a language which he/she actually does not know by memorizing and using certain phrases meaning "I don't know." For this reason, these chunks are analyzed separately from the "Conversation Established A' chunks.

⁴ The original transcript was made using the TRANSliteration system. Here, for the sake of convenience, simplified forms the Nepali speakers we consulted regularly use are adopted. Upon request, we are willing to send the entire transcript to interested researchers.

The chunks classified as "Inappropriate Responses" are illustrated by the example where in response to the question "Tapai, bihana beluka ke khanu huncha tapaile gharma?" (What do you eat at home in the morning?) the subject said "Ah ... ah ... Shiba ... e ... e ... dharma" (Ah ... ah ... God Shiba ... e ... e ... religion).

The "Ambiguous" chunks involved examples where the subject made such utterances as "Ah ..." so that the utterance can be interpreted either as an answer (in this case "yes") or just a gap-filler.

If we count the "Conversation Established A" chunks as examples in which the subject successfully communicated with the native speaker in Nepali, the percentage will be impressively high, 75.7% (53 chunks). As we have just pointed out, this percentage should be treated with some reservations. Yet, even if we wholly exclude the "Conversation Established B" chunks, about 39% of the conversation can be regarded as "established."

Next, let us consider the subject's vocabulary. The number of words she used is not large, only 34.⁵ However, of these 34 words, 20, which are shown in (1), were first uttered by the subject, suggesting that she had at least some knowledge of basic Nepali vocabulary.

(1) Words First Uttered by the Subject:
"mero" (my), "ke" (what), "tis" (30), "ma" (my),
"bujina" (I don't know), "ho" (yes), "kodo" (millet), "shiba (shibo)" (alcohol) "dharma" (religion),
"pachis" (25), "pet" (stomach), "dukahuncha"
(hurt), "rog" (disease), "guhar" (help), "at" (eight),
"satori" (70)," "dal" (dall (curry)), "kana" (food),

"sathi" (friend), "gaun" (village)

The fact that the subject uttered these words within a short conversation seems to suggest that she has at least a minimum level of vocabulary knowledge to communicate.

An interesting fact pointed out by Dr. Khanal Kishor Chandra, who is an anthropologist and quite familiar with linguistic situations in Nepal, is that, when asked for the name of his wife, the subject did not seem to understand the word *shrimati* 'wife,' which is the word Ms. Kalpana first used in her question. This is a word usually taught in language lessons of

Nepali, and educated people are familiar with. When Ms. Kalpana replaced the word with *swasni* 'wife,' a non-standard word, the subject instantly understood the meaning and answered appropriately. This seems to indicate that the Nepali the subject used is, even if she had learned the language, it must not be in a standard way.

Now consider the morphosyntactic properties of the subject's speech. First, it should be pointed out that the subject's responses tend to be short, either words or simple sentences, and no complex structures like subordinate clauses are observed. One notable point, however, is that the subject used two forms of the same verb *hunu* 'be' in accordance with the situation as shown in (2).

(2) a. Tapai Nepali huncha? 'Are you Nepali?'b. Mero buwa Tamang hunu-huncha. 'My father is the Tamang.'

The Nepali verb hunu 'be' shows a complicated conjugational pattern depending on the properties of the subject. In (2b) the high-grade form is properly used showing respect to the father of the previous personality. On the other hand, in (2a), the singular lowgrade form of the same verb is used. The form here is the third person singular low-grade form rather than the expected second person singular low-grade hunchas or second person middle grade hunchau. Dr. Khanal Kishor Chandra explains that using the third person singular form in an environment where the second person form is required is quite common, especially among speakers whose first language is not Nepali (like Rataraju, who seems to belong to the Tamang), and that the usage here, although "ungrammatical" from the viewpoint of the standard grammar, makes more sense than the proper form. The usage of the proper forms in the two environments is especially surprising in view of the fact that Japanese, the native language of the subject, lacks Subject-Verb Agreement, and that learners of languages with this property, like English, tend to have considerable difficulty in acquiring this part of the grammar.6

We should not, however, ignore the fact that the subject rarely initiated the conversation and responses were relatively slow. So, the present case shares

⁵ We counted two inflected forms of hunu 'be,' huncha and hunu-huncha, which we discuss directly below, as one word.

⁶ In Ohkado and Yanagi (2004), who analyzed the Hiroshima English Learners' Corpus data, it is reported that 78.5 percent (117 out of 149) of junior high school learners failed to conjugate the English verb BE.

the weaknesses (the limited vocabulary and sentence structure of the subject's utterances, and the spotty nature of the subject's response) with the two cases reported by Dr. Ian Stevenson (cf. Thomason 1995).

Yet, there are two important differences between the present case and the cases investigated by Dr. Ian Stevenson.

First, the hypnotic session about which we report here is the second one for the subject, and being spoken in Nepali, the language which she does not know in her normal state, is her first experience. This is in sharp contrast with the case of Jensen, the Swedish-speaking personality examined in Stevenson (1974), who appeared in eight sessions and the case of Gretchen, the German-speaking personality examined in Stevenson (1984), who appeared in 19 sessions. It might be plausible to assume that "past life" personalities need to be called out a number of times for them to fully recover the language they used and in the present case the number of times the previous personality was called out was not enough.⁷

Second, Japanese, the native language of the present subject is genealogically unrelated to Nepali, which is an Indo-European language. This is in sharp contrast with the cases of Jensen and Gretchen, where the subjects' native language, English, and the languages of the "past life" personalities, Swedish and German, are classified as Germanic languages and genealogically very close to English. Therefore, in these cases, we might suspect that the subjects were somehow able to utilize their linguistic knowledge, at least at the level of grammar, in speaking the "unknown" language. This possibility, however, can be excluded in the present case.

In addition, we might also be able to point out the strong possibility that the Rataraju personality is not a native speaker of Nepali, since he referred to himself as belonging to the Tamang, whose native tongue, Tamang, is in the Sino-Tibetan family. This could have contributed to the lack of fluency in his speech.

Because of these differences, we might be able to say that the present case is stronger in evidential value than the cases investigated by Dr. Ian Stevenson

Opportunities to Have Learned Nepali by Normal Means

The subject claims that she has never studied Nepali nor has she had contact with Nepali speakers. In order to confirm the subject's remarks, we conducted the following three investigations.

First, we investigated the personal history of the subject, which led us to conclude that it is highly unlikely for the subject to have learned Nepali.

Second, we asked the subject and her husband to sign a pledge that the subject had never learned Nepali in her entire life, which they willingly did.

Third, we gave the subject a polygraph test, which was conducted by Arasuna Masana of the Houkagaku Kantei Center (Forensic Science Investigation Center). Mr. Arasuna was chief of the Osaka Prefectural Police Criminal Investigation Laboratory and has conducted a polygraph test on more than 8,000 people. The test was conducted on August 6, 2009 at the home of the subject. In the test, three questions related to the subject's ability of Nepali were asked. Two of them were whether the subject was able to recognize two Nepali words, "chimeki" (neighbor) and "chora" (son), which she apparently understood in the hypnotic session. No notable reactions were observed so that it was concluded that the subject did not recognize the two words, which suggests that she has never learned Nepali consciously. The third question was about the Nepali currency, which any person who has learned the language will be expected to know. Again, the subject's reaction shows that she lacked the relevant knowledge.

Verifications of the Subject's Statements

At the time of the session, the village of Nallu, which the subject had mentioned in the 2005 session, was not found. After considerable effort, a likely candidate was found in the location about 25 kilometers south of Kathmandu, in Lalitpur district. According to the 2001 Nepal census data, it had a population of

⁷ Unfortunately physical conditions of the subject do not allow us to conduct another session to obtain more information about her ability to use Nepali.

⁸ The village was not on Google Maps in May 2010. None of the Nepali we consulted had heard of the village. Nor our Internet search including sending messages to universities and government offices was successful. The problem, we eventually found, was that we thought that the village was spelled as either 'Nalu' or 'Naru.'

1849 living in 320 individual households in 1991.⁹ There did not seem to be any other village of the same name, and more importantly, 96.7 percent of the villagers were reported to be Tamangs, the tribe the Rataraju personality claimed to belong to.

With the village of Nallu located, and since the subject under hypnosis seemed to refer to the Rana dynasty, which ruled the kingdom of Nepal from 1846 to 1951, we hoped that we might be able to track down the past-life personality by doing some fieldwork in the village. One of the authors (Ohkado), undertook this task, spending a week in the village (the 4th to the 11th of August, 2010). Dr. Khanal Kishor Chandra served as a guide and an interpreter. The people with whom we had relatively long interviews were as follows.

Yagya Tamang: 38 years old, an elementary school teacher

Shyamial Panthi, secretary of the Village Development Committee (VDC) at Nallu village from June 2008 to July 2008

Bidur Ghimire, vice secretary of the VDC at the Nallu village since June 2008

Pritivi Ghalan, 78 years old, son of the oldest man in the village, serving as a virtual chief of the area, keeping the key of the VDC office

Jaya Bahadur Ghalan, 103 years old, the oldest man in the village

Krishna Bhadur Tamang, 53 years old, former village chief, serving as an unofficial chief (There was no official chief at the time of the interview because of the election delay caused by political instability in the country.)

Shambhu Ghimire, 65 years old, secretary of the VDC in 1980-1984, and 1992-2010

Nallu village, where the subject's "past-life" personality purportedly served as a chief, is, as we have seen above, located in the Lalitpur district. The coordinates are 27.55°N 85.34°E. The village is at an altitude of 1685 meters. Due to the poor road conditions, it takes about one and half hours to travel from the capital, Kathmandu to the village.

Results of the Fieldwork

The village did not have a custom of keeping written records before 1950. Furthermore, all the documents in the VDC at the village were burned in 2003 at the time of the People's War so that there are no village specific documents. The only relevant record we found is the electoral roll of 1994 stored in the Election Commission of Nepal. Rataraju might be too old to be listed in the document as a voter, but we hoped that we might be able to find the names of his son or daughter. We even hoped that we might be able to find Rataraju himself as a "guardian" because for a female voter, the name of her husband or, when she is not married, the name of his father is listed as well, so possibly we would be able to find the name of Adis, a daughter of Rataraju.

However, none of the people in Table 1 was found among the 1643 voters (plus corresponding "guardians" for women) listed in the document. The names which Dr. Khanal regarded as close to those listed in Table 1 are given in Table 3.

Table 3 Close Names

| Rataraju | Ratnaraj Shapkota |
|----------|--------------------|
| | Ratna Shanktan |
| | Ratna Bha Ghalan |
| | Ratna Bha Ghalan |
| Rameli | Ramita Lopchan |
| | Chamali Lopchan |
| | Chamali Thing |
| Kujaus | Kailash Bha Thing |
| Adis | Adhi Maya Shanktan |

Neither is it the case that the people whose names are close to Adis or Rameli have husbands or fathers whose names are close to Rataraju.

The villagers interviewed gave two people, Ratnaraj Shapkota and Rana Bahadur, as possible candidates, the first of whom is listed in Table 3 as well. However, the names of their wives and children are different and neither of them could have been Rataraju.

In conclusion, neither the interview-based nor the document-based research was able to identify the people listed in Table 1.

On the other hand, the subject's remarks about food and funerals shown in Table 1 turned out to be correct, or apparently correct. Lentil and millet are both principal foods in the village, and rice is also eaten on special occasions. The reference to the Hi-

⁹ http://en.wikipedia.org/wiki/Nallu

malaya, which all the Nepalis we consulted in Japan said they did not understand, seems to indicate the funeral custom in the village, in which bodies are brought to a mountain from where the Himalaya can be seen and cremated.

The subject's remarks about the number of villagers are not off the point either: According to the former village chief, Krishna Bhadur Tamang, the village used to be divided into 25 small groups. (But it is not the case that there were only 25 households, let alone 25 people as far as the former chief knows.)

Apparently, the most intriguing finding is concerning how to count numbers. When asked about the age when he died, the Rataraju personality answered "at satori" (eight and seventy), putting the digit of one's place before the digit of ten's place. All the Nepali speakers we consulted in Japan commented about this part as "unnatural." In some languages such as German the digit of one's place is put before the digit of ten's place, but Nepali is not such a language. It turned out that counting numbers by putting the digit of one's place before the digit of ten's place used to be the common way in the village, especially before the dissemination of education. According to 78 year-old Pritivi Ghalan, he himself is not very familiar with the old custom. 103 year-old Jaya Bahadur Ghalan unintentionally showed us this custom when we asked him how old he was. Since he can no longer speak, he communicates with gestures. In answering our question, he first showed "three" and then, "100" in accordance with the old custom he is familiar with.

Conclusion

There are many cases in which subjects' "past-life" recalls are to be regarded as products of their imagination as pointed out by Baker (1982), Spanos et al. (1991), Stevenson (1994), and Venn (1986). However, although rarely, hypnotic regression seems to induce something that can only be accounted for paranormally: A case of Antonia Ruiz de Prado, a 16th-century Catholic woman reported in Tarazi (1990) and two cases of xenoglossy reported by Dr. Ian Stevenson. We hope it has been shown in this article that the present case is another such example.

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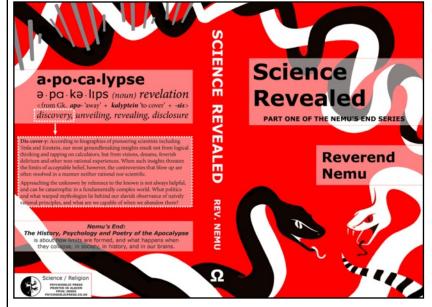
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Navigating to the Inside: First Person Science Perspectives on Consciousness and Psi

Rafael G. Locke



Abstract

The fundamental aim of this paper is to explore three important areas of research: First, the ways in which a first-person science may be conceived of within anthropological and experimental research mainly using existential-phenomenological approaches. Second, how an existential-phenomenological approach may illuminate some of the key aspects of mediumship with respect to state of consciousness and state of being change as well as questions concerning the place of agency and ownership in human experience and behavior. Third, an exploration of the ways in which first-person 'data' may be presented in relation to the consciousness-psi relationship. The overall analysis moves from the 'exterior' to the 'interior' of human life-worlds, to the phenomenology of doing first-person science.

One of the most exciting developments in research on consciousness in recent years has been the development of the notion of a first-person science. But, while its evident promise is explored, it is increasingly a hotly contested notion within philosophy, neuroscience, psychology and other disciplines. While there are keenly fought engagements over whether there can, actually, be a first-person science of any kind and, if that were to be the case, what methodologies would it embrace or require to be identified as a science, one of the peculiarities of this agonistic saga is that it rarely takes a look at some of the most fundamental questions about being a researcher-scientist and doing research. While there is a significant history of interest in the sociology, psychology and philosophy of science, there is very little which engages the processes inherent in the lived experience of persons involved science and research.

Recent work in consciousness, especially the correlation of experience with brain 'events' or 'dynamics', which has been labeled 'neurophenomenology' (Varella,1996: Dennett, 2001; Thompson, 2007) focuses on the very specific ways in which a first-person science might be developed contra-distinction to second- and third-person approaches where the latter is that which defines most of scientific endeavor revolving about systematic observation and measurement of

phenomena of interest ... the methodologies, instrumentation and theorizing of empirical science. Much of the case for a first-person science, as a genuine contributor to all knowledge and not just to the subject of consciousness, has flowed from phenomenological philosophy in its various forms ... for example, the phenomenology of perception, embodiment, lived experience constitutive of a social world. There have been some striking and useful perspectives and tools which have emerged from this work, especially that of Gallagher and Zahavi (2008), Hurlburt (2001), Hurlbert and Schwitzgebel (2007), Petimengin (2009), Smithies and Stoljar (2012), Thompson (2001, 2007) Varela (1996) and Varela and Shear (2002). But, at the same time, there are some crucial deficits.

The deficit aspect of current first-person investigations reminds me of the movement from classical physics to quantum physics where the homogenized observer-scientist of the classical model, made secondary to the logic of investigation and instrumentation, gave way to the re-introduction of the observer and the process of observation: observer, consciousness, observation and the object became fused in a radical departure from a 'mindless' empiricism. Strangely, while the argument about the validity and relevance of such a construction of the foundations of science has raged for over nearly a century now, a 'deficit' is still there and it takes a specific form: Sci-

ence and research is done by *persons* installed in social and cultural worlds through which science is articulated. Persons are part of an intersubjective order which defines social and cultural phenomena ... and, in this sense, research is never performed by monads to be analysed and understood discretely.

These latter considerations take us directly to some of the more important developments in the social sciences, psychiatry and psychotherapy which emerged in the 1960's and 1970's and which reflect long-standing European fascination with differences, and possible rapprochement, between the 'hard' sciences and the sciences of history, sociology and anthropology. In brief, can there be a meeting which is meaningful and productive in theory-building about the world, between sciences which cancel the perspective of lived experience in a rationality which links reason, observation, explanation and prediction and those which focus on the primacy of lived experience, the domains of meaning and action and understanding (Verstehen) which comprises the axis of the everyday world and which is constitutive of a lived world (Lebenswelt)? The question is important for a number of reasons, not the least of which is, 'Can there be a first-person science?' which entails the question, 'Where are persons, social actors, and subjective experience in such a science and, indeed, within third-person science?"

We can frame a line of enquiry around these issues which is relevant to our topic by pointing out that from Max Weber to Alfred Schutz and Harold Garfinkel, from Edmund Husserl to Maurice Merleau-Ponty and Martin Heidegger, there is a thread out of which a useful approach to first-person science can be constructed. This thread is picked up and articulated by Nagel in his provocative paper, 'What is it like to be a bat? (1974) which grounds the first-person debates in the extrapolated question, 'What is it like to be a researcher doing research in a specific domain? While there are psychological, sociological, historical and philosophical, as well as biographical studies of how science is done, there is very little on what it means to address the previous questions from within the perspective of a person experiencing and acting within the lived world of science and research.

For anthropologists, these sorts of questions are essential to the business of doing ethnographies. But, of course, the same debates as those which inhabit the 'hard' sciences are to be found in social and cultural research and most evident in question surrounding the conditions under which one enters, understands and interprets other cultures ... other than

one's own. The idea of the participant observer is a standard way of summarizing the complex of factors which concern anthropological and sociological fieldwork: there is a sense of balancing reflexive observation and cultural immersion through a sustained distance, deposited in suspensions of belief about cultural contents (beliefs, values, perceptions, feelings and explanations for actions, for example) in order to generate acceptable data and theoretical positions written as ethnography. In this 'balance' there is a family relationships with the dynamics of psychotherapy, where empathy is required as a tool and interpersonal axis through which effective relationships are established and maintained, despite any fundamental differences in world-views and behavior which may obtain between therapist and client. These elements of relationships, and being able to grasp other minds, other worlds, other ways of being, are stretched as accomplishments in situations where cultures are radically different from that of the researcher and where the world of the client is radically different from that of the therapist, as in dealing with schizophrenia.

A preliminary question which arises here is this: How far is one able to extend one's involvement with another culture or another person who is a client in order to generate what may be a more comprehensive view of the 'data' of cultural membership or psychiatric disorder experience? Just what the 'data' might look like takes us back to perspectives which flow from Searle's seminal paper.

The axis of mutuality in cultural enquiry and clinical practice, the creation of a reciprocity of perspectives revolves around the phenomenological dimension of strangeness and familiarity which has been so beautifully explore by Alfred Schutz in his idealizations of 'The Stranger' and the 'Homecomer' (1962). At this point, we can begin to extend the possibilities for 'data' which arise from a rather particular kind of involvement with those who are 'subjects' in research projects. Schutz's work derived principally from Max Weber's work which was directed at creating a sociology of social action which was founded in the concept of 'understanding' (Verstehen) both as a tool for research and as the focus on what social or cultural members do as meaningful action. He introduced the idea that rationality, as the code for intelligibility of action, could be cast in a broader framework than instrumental reason, for both researchers and subjects, including traditional, value and emotional rationality. However, Weber was interested in establishing ways in which research could be informed by

techniques which grasped the essential features of certain kinds of social action and generated sets of hypotheses about actual social dynamics. The fundamental tool which he created was that of idealizations which were constructs which abstracted the patterns of social action in specific domains. The most famous of his idealizations was that of bureaucracy. In this way, following closely on the work of interpretive history and philosophy, he was able to ask some important questions (often missed by his critics): specifically, 'How faithful is this rendition of everyday social action in a particular society to that which is experienced and understood by cultural members?' In this straightforward way, Weber introduced the concept of adequacy. It translates into a sharp requirement: social science constructs or theories about everyday action need to be understandable by socialcultural members, otherwise, they are, as Husserl (1962) reminds us, distant abstractions which may not capture the elements of the Lebenswelt at all; they may actually obscure it.

I will not pursue in any detail Weber's ruminations about the conditions of adequacy which were largely tied to economic models current in Germany at the time (Eberle, 2010); rather, it is more important to focus on Schutz's work and where it may lead in the quest for a first-person science. Returning to his idealizations, and especially 'The Stranger', Schutz encapsulates the social phenomenology of familiarity and strangeness and its correlation with questions about belonging, social and cultural membership, identity, boundary states (self-other, inside-outside, me-not me, and so on). He creates the idealization in these terms:

Each term in a scientific model of human action must be constructed in such a way. That a human act performed within the life-world by an individual actor in the way indicated by the typical construct would be understandable for the actor himself as well as for his fellow-men in terms of common-sense interpretations of daily life. Compliance with this postulate warrants the consistency of the constructs of the social scientist with the constructs of common-sense experience of the social reality. (Schutz, 1962: 44)

But, in order to develop those scientific constructs which are faithful to the reality of which they are ostensibly 'about' there is a further requirement of adequacy which must be met and this is spelled out by Garfinkel (1967) in his postulations of ethnomethodology. Specifically, scientific research which grasps what membership in a lived world is like is an accomplishment which depends upon the acquisition of certain life skills ... the nuances of language, the discerning of meaning, the production of typical and acceptable acts, the establishment of a viable identity, and the exemplification of what it means to be recognized as a competent social-cultural member. In other words, 'What is it like to be a cultural member?' or, 'How does one pass as a cultural member?' Garfinkel's counterpoint idealization in this is 'The Cultural Dope' who does not pass as a cultural member in their own culture, which condition limits their ability to pass as a cultural member in any other culture since what is to be suspended in order for that to occur is not well known, not competently lived out. The relevance of Schutz's Stranger and Homecomer in this context is clear ... what does it require to move from the outside to the inside of a society or culture? Also, what exactly is the inside? This is where phenomenology, existential phenomenology and introspection conflate to provide some insights. In short, participant observation and empathic clinical detachment may be inadequate and a more profound immersion may be required.

Immersion requires more than and different from conventional ideas about learning roles in situ or acquiring and performing pre-scripted roles in research projects. It involves moving into the interior of the lived world as an embodied experience. While this will certainly involve all the practical behavioral competencies, one of the key features which grounds the life-world experiences in any culture, which is the axis and source of intersubjective life, is its ontology. So, a first-person science of culturally framed phenomena requires not only using the tools of the phenomenological reduction and its variant, the ethnographic reduction, but it also demands suspending disbelief, insofar as that is possible, and being in the cultural life-world looking into it, living out its natural attitude (Husserl 1962), its taken-for-granted notions of the 'real', expectable and typical, and looking out into the life-world from which one becomes distant socially, existentially and epistemologically.

It is of considerable importance here that we ask the obvious questions: 'What would the data of such enquiries look like?' and, 'Are there any exemplars of such data?' It is quite fascinating that in some of the leading work on first-person science, the observation is made that the whole issue of how to do first-person science and what it might look like as a form of reporting in the end is so complex and daunting that we may be best directed to the work of novelists (Schutz, forthcoming; Varella and Shear 2002; Thompson 2007) ... for example, James Joyce's Ulysses and Frank Herbert's Dune or Haruki Murakami's After Dark ... who seem able to dwell vividly in the worlds of their characters, in their embodied presence and experience. Herbert's work is particularly interesting since he takes a step away from the purely effected 'stream of consciousness' of Joyce and settles on an interior view of state of consciousness change in a cultural idiom and presenting what we would call psi in these terms. However, the novelist's methodology is something which remains unspecified in firstperson research despite its obvious appeal and we await a fuller treatment of its possible contributions.

But, this brief excursus reinforces the requirement for a closer look at some of the phenomena which are central to the anthropology of consciousness and psi. In our recent re-working of our monograph, *Altered States of Consciousness and Psi* (2009), Ed Kelly and I repeated our assertion that the whole project which maps states of consciousness emerging out of distal factors (social-cultural-environmental) and proximal factors (situational-immediate-triggering) will be greatly enriched by thorough-going phenomenological investigations of mediumship, shamanism and other expressions which embody state change and correlated psi.

The following treatment of mediumship focuses in the first instance on developing a phenomenological profile. It then moves to consideration of the postulate of adequacy as a prime feature of first-person scientific investigation and, in particular, explores the ways in which first-person 'data' may be proffered.

Mediumship: Some Phenomenological Perspectives

Conducting a phenomenological analysis of mediumship is, of course, an enormous task which requires much more than can be encompassed within this paper. However, it will serve the project of exploring ways in which a first-person science of consciousness may constructed if a definite focus is chose, offering a benchmark from which other research may flow. Much of the material I will refer to is concerned with anthropological research on mediumship, shamanism and the development and application of transpersonal psychotherapy which have all been part of professional and academic career. At the core of this corpus of work is the steady assembly of

a phenomenological approach to these domains, cross-culturally and in an interdisciplinary framework, so that some constant features of mediumship may be identified.

With respect to phenomenological analysis, which I suggest is the ideal starting point for a first-person science investigation, there are several phases:

- 1. Establishing the phenomenological characteristics of mediumship as a domain for investigation. This is as much informed by an existential-phenomenological (Merleau-Ponty 1965, for example) as it is by a social-phenomenological (Schutz 1962) approach.
- From this starting point, specific features of mediumship and the general area of the relationship between consciousness and psi phenomena may be selected and opened to phenomenological enquiry.
- This step-wise form of address will also allow the delineation of some of the salient problems in first-person science of consciousness construction ... some current questions and controversies.
- 4. Finally, a preliminary description of how a firstperson science investigation of mediumship might be undertaken is presented.

Recently, Michael Grosso (see Grosso, 2010: 225-246) issued a timely reminder that mediumship offers us an opportunity to investigate the ways in which human beings are extraordinarily creative in the construction of the contents of their consciousness and especially regarding the ways in which they forge identity, agency and actions. Grosso puts aside the question of whether the identities and information produced in classical and recent studies of mediumship and its current incarnation, channeling, are the result of some kind of commerce with other worlds which involve, for example, spirits, gods or ancestors. Emily Kelly (2010) has likewise drawn attention to the fact that, while Spiritualists have defined mediumship in terms of communication of various kinds with discarnate entities, there is also a strong point of view which suggests that mediums draw upon some supernormal process, but that the nature of that process is the source of some disagreement.

In the last 40 years, an enormous number of cross-cultural studies of mediumship from cultural, social, psychiatric and psychological perspectives (Bourguignon, 1973, 1976; Rock 2013) has emerged. However, the ontological status of the mediumistic

phenomena, especially culturally defined spirits or other entities and forces which reside beyond the everyday ranges of experience for cultural members, remains moot. Some anthropologists (for example, Hunter, 2011; Turner, 1998) have taken a step toward resolving this matter by immersing themselves in mediumistic and healing practices, abandoning the conventional position of participant observer. There are some obvious difficulties relating to this procedure, especially with respect to the conditions under which one might genuinely be considered to be a cultural member, while the matter of just how well the experiential content, flow and dynamics of individuals who make this step articulate with typical and reproducible features of meaning and action in cultural terms are articulated. Some of these issues are currently being aired in this journal. But the better point of entry to mediumistic research, as it relates to our current task, is through the human 'multiplicity' and associated creative potentials (Crabtree, 1985; Grosso, 2010).

One of Crabtree's primary interests was Multiple Personality Disorder, now called Dissociative Identity Disorder (DID), as well as possession. And herein lies one of the principal areas of contention: just what is it that mediumship is expressing? Is it a form of partial or complete possession by already existing alternate, internal personalities or identities with their own imprimatur, communicative and expressive style, social, cognitive and behavioral features; or due to the intrusion or influence of some discarnate entity upon the medium's psychological and embodied states? Or both? The former is substantially associated with a history which has assigned mediumship to various categories of psychopathology such as hysteria, multiple personality/DID, and more recently, to a range of dissociative disorders which are presented in DSM-IV-TR (American Psychiatric Association, 2000) and its related handbooks of 'unusual' disorders, some of which are correlated with culturallyspecific disorders.

The introduction of 'dissociation' and 'dissociative disorders' clouds the issue somewhat since there is a substantial history of dispute over the nature of dissociation, although it is clear that it does revolve around control centres outside of those central to everyday focal awareness coming into play (Kelly, forthcoming), and there are further matters to be dealt with in this context; for example, the notion of identity and agency. To illustrate: If one describes being 'out of the body' in 'near death experiences' (NDE's) or 'out-of-body' experiences (OBE's), as in

those associated with severe trauma, an important question is; 'Just which body is one out of? And a second question is; 'Who or what is it that is out of the body and, perhaps, having an NDE?' These questions are essential to conducting a phenomenological enquiry into mediumistic phenomena. These questions can be translated into fundamental aspects of the embodied consciousness of human beings. In other words, what general relevance do these questions and perspectives have for the understanding of consciousness in everyday life, across human populations and for a first-person science's possible contribution in this arena?

In the first place, the issue of which body is the framework for description may be described in terms of Merleau-Ponty's (1965) views of embodiment as a crucial existential aspect of all human life:

space with its self-identical points, a 'virtual space' in which the spatial values that a point would receive (for any of our corporeal coordinates) are also recognized. A system of correspondences is established between our spatial situation and that of others. The insertion of our factual situation as a particular case within the system of possible situations begins as soon as we designate a point in space with finger. For this pointing gesture, which animals do not understand, supposes that we are already in virtual space . . . at the end of the line prolonging our finger in a centrifugal and cultural space. (ibid, p. 7)

There are some associated notions and derivatives from this picture. Merleau-Ponty establishes this fascinating description out of the separation of the presence of the body in the world in two forms: the en soi, in itself, or physical-biological 'object' and the pour soi, for itself, as embodiment through which we reach out and constitute the life world. This 'reaching out' takes place in the form of the intentional arc which is exemplified in this pointing, and also, more crucially, in the way in which we project ourselves into the world(s) which we inhabit and which we 'haunt'. The metaphor of haunting is used very specifically to direct attention to the ways in which human beings navigate through and thereby constitute social and cultural worlds, domains of typical experience, actions, and actors as well as the expectable sphere of one's everyday life and therewith how this might be transcended or disrupted.

One form of rupture which we could examine concerns situations where we are disabled by injury or illness so that what we can usually reach and engage—the world we routinely haunt—is inaccessible. In these limitations, our agency is sometimes altered. We may describe our behavior in terms such as 'I am not my usual self' or 'It was the illness speaking'. In addictions, expressions may include, 'It was not me; the drugs took over' or, in the case of explanations of actions which are psychoanalytically informed, I was not conscious of doing those things; It was my Shadow, my hidden demons, my unconscious'. In these cases a common denominator is the description of experience and behavior as 'not of or from me'. Agency, the authorship of acts, is not attributed by an actor to themselves as they ordinarily understand themselves. Moreover, this change in agency may also be attributed to actors by observers.

One of the more significant implications following from the discussion of the intentional arc revolves around the circumstances of its disruption. On the one hand, we can easily see in what ways the integrity of world constitution being interrupted in some ways can shape the experience of self, world and self in the world as in the cases of illness, injury or disability. On the other hand, the 'disruption' can be construed as a form of de-automatization in the sense that Deikman (1973) originally formulated it. His aim was to show how states of consciousness can be changed by a number of methods (breath-control, fasting, pain, drugs, and so on), moving a person to another state which may then become stabilized or automatized. But, from the point of view of Merleau-Ponty, this is not just a change in consciousness as perception, emotion, cognition and associated behavior; rather, it is a change in the way in which self, body and world are changed so that 'state of consciousness' becomes 'state of being' (in a world). This is important since it changes the focus from mental constructs of consciousness and intrapsychic dynamics to modes of existence and domains in which existence resides. This is an *ontological shift*, at least.

Clearly, embodied consciousness in Merleau-Ponty's terms, and related notions of agency, are important in determining what precisely is going on in socially recognized forms of mediumship. And this, then, raises a further important aspect of mediumship: It is clearly the case that mediums have important social and cultural functions to fulfill in many societies. They may be diviners, healers, mediators with the dead and other beings belonging in 'spirit' worlds as well as dispensers of wise counsel (Maraldi,

Machado, & Zangari, 2010), all of which may be originated and mediated by an everyday state of consciousness or in a socially defined 'trance'. However, as in shamanism, there may be a spectrum of ways in which these roles are executed. As previously noted, the performances may be in a range of 'states' (keeping in mind the previously noted existentialphenomenological analysis surrounding 'states' and 'state changes') and may also include inspired, creative activities such as dance, art, musical composition and drama. There seems to be little doubt that many nineteenth-century mediums had a considerable investment in their acting skills with some exhibiting an impressive array of personae and their correlated ability to engage and 'seduce' audiences and sitters in séances into the Spiritualist belief system (Moore, 1977; Nelson, 1969).

Culturally, traditional and emergent forms of mediumship, such as those of the mid- to latenineteenth century Western societies, have an acting component in them. Indeed, acting in itself needs to be brought into the picture in relation to its relevance for understanding just what is going on in the overall phenomenology of mediumship. Putting aside DID and other forms of 'disorders' for the moment, we can look at acting not only as a form of creative expression in human life, but also as a way of being immersed in invented personae, imagined experiential domains and mythopoeic realms. There are, quite obviously, degrees to which one can be immersed in an acting role and its constructed identity so that one is at a distance from one's conventional, non-acting role and identity. There are distances and differences which describe the phenomenal properties of acting as a device for communication, entertainment and the creation of aesthetic worlds, as Grosso (2010) points out. These distances and differences are to do with matters of agency (my routine authorship of acts as opposed to those which I perform in acting) as well as ownership (the actions I am performing and the ideas, beliefs and values I express are not mine, but those of an 'other'. In a play, ownership may be ascribed to the author ultimately).

As in shamanism, a medium may warily navigate the sphere of acting as an intentional undertaking and, perhaps, on the one hand, for the purposes of influence and persuasion and on the other hand, surrendering agency to another which may belong to various ontological domains. It is also worth pointing out that, as in shamanic practices, acting may be used as a tool for creating atmospheres which then facilitate state change, identity change associated with a

range of ascribed and believed in sources of agency, and 'mediumistic behaviors'.

From this overview of some of the phenomenological factors in mediumship, a consolidation of viewpoint can be established. Mediumship is a phenomenon which occurs in all societies. Its forms of expression and phenomenological composition have the following properties:

- 1. Socially, it has several 'faces' which include the social-dramatic or acting aspect which may be undertaken for purposes of influencing cultural members or for exemplifying fundamental cultural beliefs and values. Acting may include the ability to create scenarios which are appealing and convincing to cultural members and which may serve as a display of cultural knowledge, wisdom and creative abilities of the medium. Acting may be performed with varying degrees of distance from the usual personality and embodiment of the medium and, indeed, the medium's performance may be evaluated in terms of the degree to which the medium has provided a satisfying and 'valid' performance in these terms. Acting may be a precursor for or an actual induction technique for a change in state of consciousness and agency, becoming an 'other' (spirit, ancestor, alternate personality).
- 2. Mediumship in all forms of its appearance involves a change in the range and content marked out by the intentional arc. The medium comes to haunt the world in another way with respect to the 'other' they become. This may involve a transformation of the body as object as in cases where there are perceptible changes in bodily comportment; for example, stiff, relaxed, animated, somnolent. Also, and more important, mediumship involves the generation of a different domain which is haunted; this is the domain of the intentional arc as defining the haunted world, the world of possibilities of belonging, navigating in and making sense of. In the case of the 'other' being defined as an alternate personality, as in DID, or an external agent such as a spirit, then agency becomes a coextensive transformation of en soi and pour soi such that there is an automatic and perhaps automatized (settled pattern) distance and difference between everyday embodiment, identity and

- agency and that of the medium. The distance and difference may be expressed in terms of changes in physiology, including neurophysiology, personae, behavioral and physical gestalt and, most important, the experience of the person becoming and then being mediumistic. In addition, the distance and difference can be described phenomenologically as a rupture in the intentional arc which constitutes the lifeworld of which we are a part and, as a result, changes the domains which are haunted and capable of being haunted, inhabited and habitable, actual and possible... to extend points made about this process previously.
- 3. State change, variously referred to as (for example) 'trance', 'deep trance', 'possession', 'inspiration', and 'mental mediumship', may best be described as changes in 'states of being' (SOB's) rather than changes in states of consciousness (ASC's). This follows directly from the previous discussion on embodiment and 'haunting'. These are all notions of 'being in worlds', not just changes in, for example, mental states, perception, body image, or identity (Locke, 1999).
- 4. Mediumship in the above terms is a phenomenon which is about an existential shift through social, sociocultural, bodily and experiential worlds in which the transformations which occur, by any degree whatsoever, can also result in the extension of ordinary human capabilities into areas referred to as paranormal or spiritual. This may also include the possibility that individuals who are defined as mediums, DID or with some other identity/ agency change may experience these conditions as a result of psychobiological, sociocultural or paranormal factors, separately or in combination. And, for those who are described as having disorders relating to agency change (DID, schizophrenia), the creative aspects of SOB change may be a form of therapy. Indeed, returning to the opening stanzas of this chapter, mediumship may serve as both an autonomous expression of human creative potentials as well as a healing force for some types of suffering, dysfunction or just plain unhappiness and lack of fulfillment.

Having mapped out some of the phenomenological features of mediumship, from existentialphenomenological and social-phenomenological perspectives, which may be useful in enriching consciousness and psi research, I would like to move to another form of phenomenology, that which comprises the 'interior' relative to the 'exterior' of consciousness understood as that which is the grounds of possibility of experience in all of its forms. In stating my focus in this way, I am being faithful to the positions and legacies of both William James (1890/2007) and Edmund Husserl (1962;1970): both assert that the appropriate trajectory of enquiry into the nature of consciousness is through attention to experience as a radical empiricism (James) and as the antidote to idealizing, abstracting science which marginalises subjectivity (Husserl).

The Mobius Strip of First-Person Data

It is no coincidence that Lacan (2002) used the Mobius Strip as a device for addressing the complexities of his psychodynamic modeling since the Strip has some paradoxical features as a topology which seems to be intuitively two-sided, yet is demonstrably onesided. Moreover, if one pinches the Strip at the centre of the figure 8-like intersection, one may gain a sense of a movement along the surface moving from an open to a concealed appearance, much as experience can be focal and subtended by other forms at the same time. If one makes a number of Strips and joins them all at the intersection, then there is an expansion of the complexity of movement which has the appearance of outside-inside, centre-periphery. In brief, it looks rather like a model of the self as an embedded hermeneutic within consciousness, within the spectrum of experience of ourselves and others. Moroever, if one imagines moving along the surface of the Strip looking outward, there is a sense of inside-outside vistas deriving from a constancy in perspective which derives from the fact of being onesided ... a simulation of the 'I' in Husserlian terms as in I (Noesis) ↔ Noema.

But the Strip, even though it is limited as are all such models of aspects of consciousness, does point out the very interesting and important question which we must ask in research: 'When are we actually on the inside or outside of something we are researching?' In asking this question, there is the simple caveat that the answer will depend upon the ontology, epistemology and acts of consciousness (Husserl 1962) which we start with, transform and engage.

Phenomenology demands that we always include the perspective or position from which we experience anything at all so that the data. As in Husserl's classical noesis-noema correlation (act of consciousness/ observation:: that which is observed), the data is the correlation, not just what is observed. And, experience is always in some world, as an expression of embodied consciousness, as an agent. So, the changing and static forms in all of the latter and the attendant correlations are the data. Mediumship involves these kinds of shifts as noted in relation to the existential-phenomenological modification of Deikman's concepts about state change ... and the shifts would seem to be just as important as the stable conditions. Regarding psi: What expressions of psi phenomena can be extricated from both stable and transition states of being?

At this stage of the investigation, it will serve the enterprise better in terms of clarification of what 'data' can mean in first-person science, if we go to some approaches and examples of research into mediumship and related phenomena.

1. What is it Like to Become and Be a Medium?

Gaining an 'insider's perspective on mediumship can certainly flow from cinematic and novelistic materials. However, they are, perhaps, best regarded in a strictly research context as providers of guidelines for enquiry. What is required to ground this kind of address to the 'data' as described earlier is to extrapolate from the Nagel and Garfinkel reasoning and to suggest that the production of 'data' (which I shall address as an existential grammar below) should proceed from 'immersion' in the process of becoming and being a medium, rather than being an observer in the second- and third-person modalities. Of course, there is no absolute escape from distance and difference as they come into play with respect to the experience of becoming and being a medium, reporting it as research data or findings. First-hand experience will always be reported as 'that which happened or took place', an account, in a time-line and within memory. This is the hermeneutic qualification regarding phenomenological enquiry: specifically, all descriptions or reporting of experience are interpretations in the end since, in both linguistic and dynamic terms, what is pointed at, indicated or described is a matter of disclosure which arises out that which is automatically hidden (language, the descriptive methodology itself, and temporality). This is not necessarily, I believe, a

well warranted source of criticism of phenomenological method in the end, since phenomenological reduction entails embracing these aspects of the process of creating anything that becomes identified as 'data'.

The most important requirement in this is to make sure that the substance and modalities of reporting are subject to a phenomenological, reductive protocol which unpacks positionality, and acts of consciousness through which 'objects' are built up, throughout the reporting and as a whole event. In Merleau-Ponty's terms, this means unpacking the intentional arc as it emerges from embodied consciousness and, at the same time constitutes it in a world, and in terms which describe both its seamless and its 'ruptured' expressions.

One aim of this intensive from of is to create idealizations of the experience of becoming and being a medium, as Schutz and Garfinkel have done, except here the interiority of this process is the primary focus and not the social context in which mediumship is played out along the spectrum of possibilities from acting to 'possession trance' forms. My own work in this area, beginning in 1974 (Locke) has been characterized largely as trying to establish a reporting of interiority which flowed from my own second-and third-person observations of mediums while adding the first-person perspective from immersion in mediumship through learning how to be a medium in a range of settings ... séance groups, Spiritualist churches, private encounters and instruction.

And the format in which this work was reported, in its final form, was to 'triangulate' three fundamental axes of data:

- 1. Descriptions of what happens as a person displays the process of learning to be a medium and being a medium, their reporting of the interior of that process ... and what they thought, felt, sensed, the full spectrum of sensory-perceptual, cognitive and symbolic experiences which may be partially expressed at the time of mediumistic performance or recovered later in interview or self-reports.
- 2. Perspectives derived from research on the psychobiology and neurophysiology of 'state change' ... for example, correlating arousal states (ergotropic trophotropic; specific activation sites in relationship such as thalamus, prefrontal cortex, parietal lobe, for example) with observations of bodily changes and behavior, including utterances, and the experience of

- the 'subject'. This are of data gathering has to do with what has become identified as *neural* correlates of consciousness (NCC's) and represents one face of the experience-brain relationship which has become identified as *neurophenome-nology* (Varela
- 3. Idealizations which, in contradistinction to those afforded by Weber, Schutz and Garfinkel, are expressions of 'what it is like to be' a medium from the interior, with the capacity of being a witness to one's own experience included as part of the data (as a form of positionality). The idealizations do not, and cannot, represent or point to the whole of the experiences had by a 'typical' medium; rather, they represent moments in the experience of mediumship which are pivotal (hypotheses) in its unfolding as a recognized form. In these terms, idealizations are the result of the phenomenological reduction, suspension of the natural attitude (a priori ideas about what mediums are or what they do or what they experience deriving from one's own culture of origin) and the eidetic reduction which may follow from the initial phenomenological enquiry and which is concerned with identifying invariant features of phenomena ... in this case, mediumship. They are, in a sense, typifications or grouped categorizations of experiential responses from the reports of a range of subjects in a range of settings.

To exemplify this form of 'data', I shall set out the components in a brief slice of the life of a student medium being instructed by a teacher, in a contracted form since a full presentation is outside the scope of this paper:

a. Observations of student and teacher (3rd person data): The student, a young woman, sits on a wooden, straight-backed chair in a darkened room in the presence of experienced instructors in the art of mediumship. The principal instructor tells the student to relax and slow her breathing and to simply notice everything which happens and not to make any judgement whatsoever about what is happening (her experience) but, rather, to let her guide come to her ('Guide' in this context is understood to be a spirit being which can invest itself in the body, and displace the personality/ mind of the medium, and also to facilitate the

entry and exit of other spirit beings into the medium's body). The student takes a deep breath and lets it out slowly, according to prior instructions, and visibly settles into the chair, her breathing slowing, right hand beginning to twitch slightly, eyes moving rapidly, now slumping slightly forward and, after about 5 minutes, beginning to mutter sounds which are unintelligible to the observer. The principal teacher says, 'Let yourself go. Your control is close (situationally defined clairvoyance) and you need to feel settled enough to let him enter into you and guide you. You will notice yourself changing and going deeper' Silence, all breathing slowly.

b. Observations of physiological changes (3rd person data): The student appears (this qualification is necessary if no measurements of NCC's is taking place) to have entered into a trophotropic relaxed/deeply relaxed state with some facilitation by the instructor. Muscle tone is decreased, posture loses its rigidity, breathing slows and evidence of increased 'mental' imagery appears ... rapid eye movements. In the meditative 'band' of trophotropic states, there is often a change in boundary states (self-other, self-environment, body boundaries, for example) which may ultimately be associated with loss of sense of self as in mystical experience (Kelly and Locke, 2009) or loss of self in the sense of the appearance of another personality, identity or 'presence' in the medium (Locke, 1974). Some substantial analysis of mediumship with continuous EEG recording was undertaken at the Duke University Experiential Laboratory, 1976-80 (Kelly 1981) in which continual, rapid multivariate analyses of phase shifts in the spectrum of EEG frequencies indicated clear patterns associated with each 'personality' or 'other' appearing in the mediumship episode. This technique, using more sophisticated EEG recording has been taken forward by NIMH in relation to DID.

Idealization 1: Student:

Student report (1st person data)

The chair is a bit hard on my butt and I am beginning to feel uncomfortable ... trying to get my arms and body in the right position as I have been told ... arms resting on my lap, palms of my hand upward to be open to the guides ... taking a deep

breath and breathing slowly, waiting, waiting My eyes are closed and the room is dark but I'm seeing some lights and colours flickering before me. I'm trying not to make any judgements about this and my aching butt, but I'm wondering whether these are signs of the guide coming close. Relaxed, breathing slowly. Can hear the instructor telling me to let go, but I'm not sure whether he is really talking to me or not. I remember the rule they taught me ... 'When I can control myself and the guides can control themselves, then the guides can control me ...' I'm trying to let go, but

Idealization of 'surrender to otherness'

I hear you speaking to me and using the term 'you' but do you mean 'you' as in the ordinary way in which you address me when we are not being mediums? Or perhaps you are speaking to me, using 'you' as an address which indicates the presence of me (as I am ordinarily present) and the spirit guide? Is it the ordinary 'you' who is speaking to me or is it some spirit guide I am hearing through you? As I am reflecting on this, I muse upon whether the 'I' of 'I am musing' is really me or some other being, a spirit being Perhaps my body slumping and the flickering visuals as well as the tingling which has developed in my arms signal the imminent arrival of my guide.

Later, after lesson 9: I relax and let the guide come. The guide is close because I feel the tingling in my arms, like electrical sensations or pins and needles, and see the flickering in my eyelids and then I am feeling the presence of the guide filling me up like a gentle warmth spreading through my body and mind and I... am... giving... control... to ... him........

Later: All I have to do is sit still and imagine the lights and pins and needles and I am gone ... the guide takes (me) over

Note 1: The changes in the student's experience pass from the map of the transition into mediumistic 'trance' to the use of the indicators of the transition (sensory-perceptual) as inductions for the transition ... state of being changes.

Note 2: The phenomenological aspect of this sort of reflection and exchange, intersecting with social and psychological points of view), can be construed in terms of the G.H. Mead I-Me construction of the social self, but it can be stretched to include I-Am-Me configurations which loop internal representations of identity and agency, subjectively, and social presentations of self and agency such as those which appear in Goffman's work and my own recent work on Vi-

sionary Practice in shamanism and transpersonal psychotherapy (Locke, 2011b)

Idealization 2: The Instructor

As I am sitting here, breathing gently, I feel the presence of my guide ... not taking me over, but shaping what I say and do. My body relaxes into this presence and I feel her (the guide) close to me (outside of me) and directing me occasionally (inside of me). I can see the student's guide close to her, just to the upper right side of here head, waiting to enter. I speak to the guide, telling them to wait until the student is very relaxed and receptive. The guide acquiesces and waits I am me as I usually am (Jim) and I am also Ah Chee (my Chinese guide).

The data: This is presented in two ways:

A. The materials from a,b,c are arranged in parallel with clear indications of positionality ... who observes, writes, analyses, reports at what time and in what circumstances. The 'triangle' makes up the data with those specifications which also incorporates indicators of ontological status of experience reported (especially with regard to psi as subjective, social and scientific constructs) so that in reading the material as a whole, there is a spiraling into the arena of subjective experience and out to the social and social-scientific.

There are two elements in 'c':

- 1. The student and instructor self-reports (untutored ... without phenomenological expertise);
- 2. The idealizations.

So, the total presentation of data is as follows:

- * The experience of the subject and the instructor approaching, engaging and then disengaging from mediumistic activity (Question: to what extent is engagement/disengagement independent of formal mediumistic performances?). What is it like to be a medium in situ?
- * The experience of the researcher throughout ... approaching mediumistic performance, observing directly, and following up. What is it like to be a researcher of mediumship in situ?
- * Reports of the subject post-factum ... self-report or interview (2nd person data).
- * Reports of the researcher post-factum ... self-report, pro forma, or interview (2nd person data).

- * Neurophysiological and other biophysical data, NO (3rd person data).
- * Neurophenomenology: 1stperson and 3rd person data (NO) correlated.

But, here is the interesting part. Varela, Thompson and Varela and Shear as well ass Chalmers have all suggested that there is a need for improved ways of expressing first-person data and that we might draw some inspiration from novelists, as mentioned previously. However, there is also a need for better formalizations which, of necessity, would have to be phenomenologically generated and, in terms of the requirements of phenomenology, must be translatable into experiential formats which are adequate (empirically adequate).

Imagine this:

There is a line from t_o to t_n which describes the experience of a person who is a research subject. Understandably, we cannot assume that it should appear as a continuous, uniformly expressed line given the variegation of human experience which we are addressing ... 'flow' does not solve the problem either, since it has certain in-built assumptions.

Emerging intentionally (in the conventional, not phenomenological sense) from this:

- a. Subject's expression of their experience in phenomenological terms ... focusing on the noesis-noema hermeneutic correlation, attending to how experience is 'constituted', 'built up'.
- b. Researcher's expression of their experience of being a researcher, paralleling 'a'.
- c. Observations of a 3rd person kind: NO
- d. A series of idealizations which are successively refined to describe, in essence (eidetic reduction in phenomenology), what it is like to become and be a medium.
- e. The whole process, moving dynamically through chronological time, is comprised of spiral movements to 1st person then out to 2nd and 3rd person data so that the whole of 'reporting', the whole of data and outcome of the investigation is this spiraling movement.
- f. More imaginings: To what extent does this process correlate with or match the experience of addressing the acquisition of a skill-knowledge set where we approach the task of acquiring it from the outside, as it were, so that we need to

'get hold of', 'understand', 'grasp' and 'express' the set adequately. The set may seem to be over, and sometimes against us (as in learning to ride a bike and falling off) until there is a *critical change* ... different from the *incremental changes* we have been making. We make a shift to being 'on the inside of the set': **we embody it!** The distance from performance is overcome or cancelled and the overt details of the performance which an observer may recognize are now distant. What is it like to have this set is lived, unquestioned, automatized and immediately accessible.

B. Performing as a medium. Providing a culturally relevant, socially competent performance as a medium, passing as a medium in any or all of the phenomenal modalities of mediumship described above.

2. Myth and Symbol in Healing:

The previously described way of addressing the business of researching mediumship could also be extended to some of the fascinating aspects of shamanic and mediumistic healing which are mapped out in Levi-Strauss's (1965) rather famous analysis of shamanic healing in Cuna society. Without going into all of the details of his rendition of the healing myth and how it is implemented in a ritual, the power of his work lies in the suggestion that the social performance of a myth (ritual), already known by the recipient of the healing, enters into a relationship of homologous interactions at the social-symbolic (mythritual), psychological (patient) and physiological (patient). Changes in the first cascades into changes of a constructive kind ... a healing outcome (reduction of pain, stress, mental chaos and inhibited childbirth, in this case).

It is unlikely that homologous relationships alone are sufficient to explain the effectiveness of healing unless some more compelling data about phenomena such as resonance (electrodynamic, physiological, for example) or, for that matter, the dynamics of hypnosis which are still contentious ... what is hypnosis, 'state' or motivated behavior to perform or comply for example, and how does it translate from social-psychological interaction to physiological changes and what is its relationship to placebo and similar phenomena?

What may seem to involve, ostensibly, a psi component or unexplained homologous interactions may be re-investigated using the first-person approach advocated above. For example, the socially shared myth is a part of the culturally specific natural attitude which is the horizon and context for ritual actions and correlated personal meanings ... subjective experience. Monitoring physiological changes which may occur as the mythical-symbolic landscape is navigated through, shaped by the shaman and introjected by the patient, while accessing the first-hand experience of the patient in this landscape triangulates the elements of third- and first-person data.

3. Existential Grammars:

I have set out an extensive guide to existential-phenomenological research, focusing on shamanism and mediumship, in Locke (2000a). This stands as a complement to and extension of the 'triangular' model and, indeed, unpacks it, or any other project in research, according to thorough-going phenomenological and eidetic reductions. The core of the existential grammars methodology is set out in an abbreviated form below, but readers are referred to the full exposition.

Returning to Merleau-Ponty's notion of the intentional arc, it is clear that it moves in two directions: into the world and constituting that world and associated embodied presence and identities and also into the self and the flesh, into the subjective and psychological- psychosomatic realms. This dual 'pointing' outward and inward takes the following, abbreviated, form:

 $\begin{array}{c} \alpha \\ Being \end{array}$

a

in a world of flesh: neurobiological factors; physical substrate

h

in a world which is experienced *physioognostically:* as a physiognomy which is pre-reflective with an implicit rationality

c in a world as embodied consciousness

Ы

in a world as lived and typified experience (*Lebenswelt*) having projects: attending, creating horizons of relevance, possibility and copresence

6

expressed in forms, formalizations and formulations out of which and into which one can point, describe, note and analyse (S/s)

f

performance, acting: search and demonstration relating to the world 'out there' for inspection and investigation. All pointing, noting, describing

 $\begin{array}{c} {\rm g} \\ {\rm the~world~experienced~\it telegnostically:~an~artifact~of} \\ {\rm overt~rationality,~of~\it techne} \end{array}$



Conclusion

It is my position that, drawing upon recent developments in first-person science, a productive foray can be made into research in the area of culture, consciousness and psi. This involves abandoning some old research chestnuts which encase rather blighted and limited notions of objectivity and opening the process of research up to the questions, 'What is it like to be a researcher?' and, for example, 'What is it like to be a medium?' These questions cannot be answered in a satisfactory manner by conventional social, psychological or neuroscience perspectives. Rather, what is required is development of methodologies of immersion which are prepared from through extensive work in existentialphenomenological methods, as is currently occurring in neurophenomenology (Thompson, 2007), for example.

The convention of writing research data and analysis in technically informed, contracted language may have to be abandoned in favour of a greater faithfulness to the 'objects' of our interest, expressed as correlations which lead on from Husserl's work and which produce a rendition which has strong similarities to a device in fiction ... hypotyposis ... 'which means making a scene so lifelike that it gives the reader the impression he can see it with his own eyes' (Binet, 2013: 15) and, we might add, feel, smell, touch, taste, intuit, think about, get a sense of and so on.

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Rafael G. Locke undertook doctoral research on spirit mediumship at the University of Western Australia followed by a CSIRO (Australia) post-doctoral fellowship and a post- doctoral fellowship in behavioral science at Harvard and MIT. Rafael has been involved with the research program established at Duke University and now at UVA Charlot-tesville since 1979, focusing on cross-cultural analysis of states of consciousness and psi, with Prof. Ed Kelly. His current research at UVA is concentrated on first-person science in relation to the major research emphasis and especially neurophenomenology. Rafael has undertaken extensive research on shamanism with specific attention to states of consciousness and psi (especially healing phenomena) and established a training program in shamanic practice in Australia 20 years ago. He is the head of Ikon International Institute and the Spirit of the Earth Medicine Society which focus, respectively, on transpersonal psychotherapy and medicine and research and practice in ethnomedicine. Rafael has published with Ed Kelly the monograph, Altered States and Psi (Parapsychology Foundation, NY), The Gift of Proteus: Shamanism and the Transformation of Being (SCI: Durham, NC) and Visionary Practice: Shamanic Foundations of Psychotherapy (Ikon Institute: Perth, WA). He is currently producing a handbook of shamanic practice as well a comprehensive program set in the Central Australian Desert called The Australian Dreaming Project.

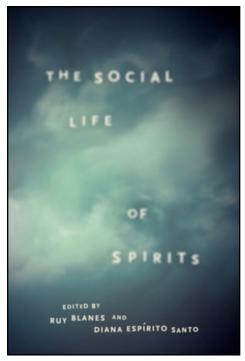
A Call for an Open, Informed Study of All Aspects of Consciousness - Etzel Cardeña

Science thrives when there is an open, informed discussion of all evidence, and recognition that scientific knowledge is provisional and subject to revision. This attitude is in stark contrast with reaching conclusions based solely on a previous set of beliefs or on the assertions of authority figures. Indeed, the search for knowledge wherever it may lead inspired a group of notable scientists and philosophers to found in 1882 the Society for Psychical Research in London. Its purpose was "to investigate that large body of debatable phenomena... without prejudice or prepossession of any kind, and in the same spirit of exact and unimpassioned inquiry which has enabled Science to solve so many problems." Some of the areas in consciousness they investigated such as psychological dissociation, hypnosis, and preconscious cognition are now well integrated into mainstream science. That has not been the case with research on phenomena such as purported telepathy or precognition, which some scientists (a clear minority according to the surveys conducted) dismiss a priori as pseudoscience or illegitimate...

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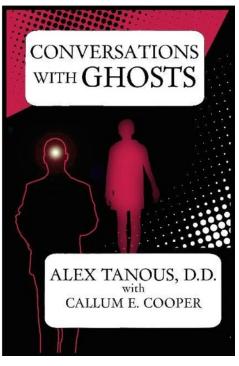
"Spirits can be haunters, informants, possessors, and transformers of the living, but more than anything anthropologists have understood them as representations of something else—symbols that articulate facets of human experience in much the same way works of art do. *The Social Life of Spirits* challenges this notion. By stripping symbolism from the way we think about the spirit world, the contributors of this book uncover a livelier, more diverse environment of entities—with their own histories, motivations, and social interactions—providing a new understanding of spirits not as symbols, but as agents.

The contributors tour the spiritual globe—the globe of nonthings—in essays on topics ranging from the Holy Ghost in southern Africa to spirits of the "people of the streets" in Rio de Janeiro to dragons and magic in Britain. Avoiding a reliance on religion and belief systems to explain the significance of spirits, they reimagine spirits in a rich network of social trajectories, ultimately arguing for a new ontological ground upon which to examine the intangible world and its interactions with the tangible one."

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"Dr. Alex Tanous was a prolific scholar and acclaimed psychic of the latter part of the twentieth century. Having created quite a career for himself internationally, and commanding a great deal of respect amongst scholars and the general public, he spent nearly twenty years as an active researcher, and research participant, for the American Society for Psychical Research. He reached an untimely end in 1990, but established the Alex Tanous Foundation for Scientific Research shortly before his death to preserve his memory and share his research and teachings.

Conversations with Ghosts was an idea for a fourth book for Dr. Tanous, and it was intended to be written by Dr. Karlis Osis and himself, outlining their various investigations of ghostly phenomena while working with the American Society for Psychical Research. The existing short manuscript - of no more than a couple of chapters - was archived by the Alex Tanous Foundation for Scientific Research, and left incomplete. Now, thanks to the Foundation's support, the book has finally been completed using additional notes and writings of Dr. Tanous, and interviews that were conducted with him on his thoughts and theories into ghosts and conscious survival beyond death. Additionally, this book provides not only a first-hand insight into the Tanous/Osis investigations, but also draws on people's personal experiences with Dr. Tanous during his various explorations of ghosts and hauntings. This is a rare insight into the work and mind of a psychic psychical researcher."

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