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The Spirit(s) of Science: Paradoxical Positivism as Religious Discourse among Spiritualists

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ABSTRACT *Language is but the means the spirit employs to give expression to itself [and] as the development of spirit progresses, words have to be laid aside, to give place to those more suitable to the growth of the spirit, as it advances in knowledge and refinement [but] whatever term may be applied to any condition of life, to give it comprehension in our minds, does not change the nature of the object spoken of . . . In regard to those internal principles of life . . . that give birth to worlds and creations vast, —the God-power, in other words, pervading immensity . . . we give today the scientific terms of . . . magnetism and electricity (Woodruff, 1862, pp. 156–158).*

One of the remarkable things in the history of science is the number of respectable scientists in the nineteenth century who found themselves sitting in the darkened séance rooms of Spiritualists. Spiritualism is a religion that originated in the United States in the mid-nineteenth century, and was based on the practice of communication with the dead. It is also a religious movement that makes claims to scientific legitimacy, and in the nineteenth century there were seemingly endless numbers of scientists willing to put this claim to the test. Several prominent scientists, including the Nobel prize-winning physiologist Charles Richet, chemists Robert Hare and Sir William Cookes, and noted evolutionary naturalist Alfred Russel Wallace, became convinced of Spiritualist claims following scientific investigations into Spiritualist phenomena. A great many other scientists, including Benjamin Silliman, Louis Agassiz, and Benjamin Peirce, rejected Spiritualist claims. While scientific interest in Spiritualism peaked in the 1870s, Spiritualist interest in science has never waned. Spiritualists still argue that theirs is a religion that is compatible with science. What is intriguing about this claim is what it reveals about popular perceptions of science, and the symbolic power of science to articulate truth.

Spiritualism provides a case study to illustrate the appropriation, reinterpretation and transformation of 'science' by individuals outside the confines of the scientific community. Drawing upon fieldwork with Spiritualists in Canada and the United States, as well as historical research, this paper explores how members of one religious community

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Figure 1. Professor Crookes's Test to Show That the Medium and the Spirit Were Separate Entities. From a drawing by S. Drigin. *Credit*: Arthur Conan Doyle, *History of Spiritualism*

understand 'science', and suggests that the Spiritualist acceptance of science as a path to truth is shaped in part by both the positivist strategies of nineteenth century scientists, and by the ongoing appeal to the positivist dimensions of science by members of the contemporary scientific community. It further suggests, however, that Spiritualists' constructions of science as authoritative are contextualized within the conviction that reality encompasses a spiritual dimension: Spiritualism paradoxically reifies science as the path to truth while disputing scientific conclusions that deny the spiritual realm.

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Religion and Science

The relationship between religion and science is an issue of concern in many new and emergent religious traditions, just as it is of concern to many members of the scientific community and to members of mainstream faiths. According to science and technologies scholar Jon Turney (2001, pp. 235–238) this relationship can be conceptualized in several different ways. The simplest way, he suggests, is to see religion and science as independently co-existing: each asking different questions and providing different contributions to human knowledge. Since religion and science are addressing different questions, there is room for both to co-exist in the world. In contrast to this, Turney suggests (2001, p. 38), is the view adopted by the majority of science writers, who argue that any proper appreciation for the implications of scientific discovery will reveal the fallacy of religious faith. This model assumes that science and religion are truly incompatible.

Mediating these two extremes is a model that, according to Turney (2001, p. 236), requires a degree of 'theological agility' to maintain, for it requires that principles of faith be reconciled with science. If such principles of faith touch on features of the natural world, he suggests, this integrative model is usually threatened by ongoing scientific discovery. Given the rejection of religious claims to scientific legitimacy or relevance by most mainstream scientific writing, therefore, and given the difficulty of maintaining an integrative model for the understanding of the relationship between religion and science in the face of ongoing scientific discovery, why is it that Spiritualists insist that their religion is not only compatible with science, but that it is 'scientific' in its own right? What perceptions of science do Spiritualists hold, and what do these perceptions tell us about how science is viewed by and presented to the general public?

Spiritualism and Science

Spiritualism is a religious movement based on communication with the spirits of the dead. It began on 31 March 1848, when two little girls played 'repeat after me' with the ghost they believed to be haunting their Hydesville, New York cottage. When the youngest daughter of the Fox family (12-year-old Kate) shouted out the phrase, 'Mr Splitfoot, do as I do!' and clapped her hands, the ghost reportedly duplicated the number of claps. Within a year, hundreds of séance circles had been established, and within five years, there were a conservatively estimated one million Spiritualists within the United States alone.[1]

Integral to the success of Spiritualism in the nineteenth century was the assertion that communication with spirits could be scientifically established. Attempts to 'prove' or 'disprove' through scientific means the spiritistic nature of ghostly phenomena flourished in tandem with the movement. Beginning with the 'Rochester Rappings' Investigation in 1849 and the State University of New York at Buffalo Investigation in 1851, scientific investigations into mediumistic phenomena became commonplace. The desire of Spiritualists to obtain scientific verification of their experiences and the willingness of scientific investigators to conduct experiments in séance rooms became hallmarks of the new religion.

According to sociologist Eva Garroutte (1993), the willingness of scientists to examine Spiritualist phenomena must be contextualized within the professionalization of science

that was taking place in the mid- to late-nineteenth century. The professionalization of science entailed the success of a positivist discourse of science over an older, Baconian model. The Baconian paradigm of science asserted the right of all careful observers to contribute to the body of scientific knowledge. In addition, the Baconian model of science affirmed the existence of two 'types' of facts—'natural' facts which could be observed empirically, and 'Revealed' facts which could be found in the Bible. Both types of facts were considered 'scientific', and were necessarily non-contradictory. The role of the true scientist was to 'reconcile' seemingly divergent religious and scientific claims, with the ultimate and eventual goal of accurately describing the universe in its material and spiritual entirety.

In contrast to this Baconian model as understood in the nineteenth century, the emergence of a positivist discourse of science tightened the boundaries of what could be considered scientific 'fact', of what might constitute scientific 'proof', and of who could be considered to speak authoritatively about such facts, proofs and scientific truths. On the first point, positivist speakers in the nineteenth century insisted that only those 'facts' which could be clearly and unquestionably demonstrated to fit within empirically observed and tested natural laws could legitimately be considered 'scientific' facts. Spiritual intuitions, experiences, and Revelation were therefore excluded from the domain of science. On the second point, the new positivist discourse narrowed the confines of what might constitute scientific 'proof'. The authority of Scripture and tradition for providing 'proof' for scientific claims was rejected in favour of purely empirical, measurable and comparative processes by which proof could be established. And on the third point, nineteenth century positivist speakers denied the right to speak authoritatively about scientific truths to non-practitioners of science. Nineteenth century philosopher of science Charles Peirce, for example, wrote that science 'is not so much a natural gift [of common sense] as a long and difficult art . . .' and one that, we can presumably conclude, should rightly be left in the hands of those trained to it (Buchler, 1955).

Facts, Proofs and Truths

Nineteenth century Spiritualists largely adhered to a Baconian model of science, in which spiritual experiences could count as 'facts', in which 'proof' of such experiences could be obtained through the personal testimony of 'reputable' persons, and in which laypersons could, through common sense, participate in and contribute to the scientific endeavour. Prominent nineteenth and early twentieth century Spiritualists such as Emma Hardinge Britten (1870, 1884), John Arthur Hill (1918) and Arthur Conan Doyle (1919, 1921, 1926) all argued that their personal experiences, duly witnessed by reputable observers, constituted scientific proof of Spiritualist claims. Given this implicit Baconian paradigm, therefore, it is somewhat paradoxical that Spiritualists also adopted the central and defining characteristic of nineteenth century scientific positivism: the conviction that 'science' represented the pre-eminent path to 'truth'. For nineteenth century Spiritualists, it was ultimately 'science', and not 'Scripture', that could accurately describe the world. This acceptance of the positivist conviction that science represented the pre-eminent (and hence sole legitimate) means to truth about the world meant that Spiritualist truth claims *must* be in accord with science. It was for this reason that Spiritualist mediums (those with the ability to talk to the dead) consistently participated in scientific investigations into Spiritualist phenomena. After all, as every Spiritualist knew, the universe included spirits: science

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must consequently be able to accurately measure and describe their existence just as it could measure and describe the rest of the world.

The Language and Symbols of Science

Given this understanding of the nature of science, the authority and prestige of science for Spiritualists has been and continues to be immense. Informed by both the Baconian and the positivist paradigms, science came to represent for Spiritualists the authoritative and legitimating path to *true* knowledge about the *spiritual* world. Over the course of several decades, from 1848 to the late 1870s, the discourse of science became *the* authoritative discourse for Spiritualists. This gradually resulted in a shift in emphasis from claims to scientific verifiability for Spiritualist experiences (as the professionalization of science continued, and more and more scientists lost interest in investigating Spiritualist claims) to the adoption of scientific language and symbols as a means of articulation or *expression* of spiritualist experience. Although Spiritualists have tended to accept the positivist assertion that science represents the pre-eminent means by which truths about the world can be obtained, this world has still been understood to encompass a spiritual as well as a material dimension. The language of science, therefore, has become the symbolic language of truth, and 'truth' has been understood in both spiritual and material ways.

This spiritualization of the language of science can be seen clearly in the writings of Charles Woodruff, the nineteenth century Spiritualist physician quoted at the beginning of this paper. According to Woodruff, language is simply the means by which spiritual truths are articulated. As history progresses and culture changes, so too does the language used to articulate spiritual truths. Within a scientific culture, it is only reasonable that scientific terms symbolize spiritual truths. For Woodruff and other nineteenth century Spiritualists, the terms 'magnetism' and 'electricity' were the best terms they could find to articulate the spiritual reality they perceived. Clearly, however, these terms held quite distinct meanings from those understood within the scientific establishment. The scientific definitions of these terms, which Woodruff characterizes as 'vague', were limited to descriptions of natural, empirical forces. Spiritualist conceptualizations of electricity and magnetism, in contrast, encompassed both the physical and spiritual universe. 'Magnetic and electric relations', Woodruff (1862, p. 161) wrote, 'work in and through the universe, to bring about change upon change, and give progress upon progress eternally, [for] by the affinity or attraction they sustain towards each other, [they] give motion; and motion is life, and life is God'.

This perception of science as the symbolic language of truth is maintained in the contemporary twentieth/twenty-first century Spiritualist context. During fieldwork with Spiritualists in southern Ontario and Western New York between 1990 and 1995, 'scientific' discourse was consistently used by Spiritualist informants to articulate their religious experiences and convictions. One Canadian Spiritualist, for example, explained the presence of the language and symbols of science within contemporary Spiritualist discourse in much the same way as Charles Woodruff explained it above. According to my informant,

> Vibrations, or energy fields, or electro-magnetism, are the words we use because we live in a scientific culture. Everyone has their own library of symbols, and science is the set of symbols that most people are familiar with, to talk about reality. That's

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> why spirits give messages the way that they do, and that's why we talk about spiritual vibrations . . . It's the universal energy, the God-energy, of the universe, and we're all part of it.

For both nineteenth and twentieth century Spiritualists, the language of science represents the means to communicate truth about Spiritualist experience. Within the Spiritualist perspective, the universe is understood to be one of continual progress and development, in which humans participate by virtue of their access to the 'God-energy' which pervades all things. It is this 'God-energy', or 'electromagnetic energy', as Spiritualists refer to it, which makes spirit communication possible. Terms such as 'electromagnetic energy', however, are conceptualized as *symbolic*, as a means of communicating religious truths. These truths, nevertheless, are understood as compatible with, and as part of, the natural world. In adopting the language of science, Spiritualists have not given up their conviction that spiritual truth exists 'out there' and that such truth is knowable through human experience. Instead, they have transformed the language of science into a religious discourse—one that is capable of communicating, within the spiritualist context, both material and spiritual truths, and one that implicitly criticizes members of the scientific community for ignoring the spiritual realm.

Spiritual Vibrations

The term 'vibration' or 'electromagnetic vibration' as used by Spiritualists is the clearest indicator of the Spiritualist appropriation of scientific or scientistic language to articulate religious experience. It is through Spiritualists' usage of this term that fundamental assumptions regarding the compatibility of science and Spiritualist belief are revealed. In contemporary Spiritualist usage, the term 'vibration' represents both the 'fact' and the 'theory' of mediumistic phenomenon. As a 'fact', the term represents 'what' mediums experience: vibrations are the 'object' of experience when mediums claim to 'see' or 'sense' spiritual essence. In this usage of the term, Spiritualists assert that the objects of their perception are 'real' in an empirically verifiable sense. Establishing the 'fact' of mediumistic perceptions to Spiritualist satisfaction is the first way in which usage of the term 'vibration' reveals the continuing importance of 'science' for contemporary Spiritualists, and reveals one fundamental assumption about the nature of science as understood by Spiritualists: namely, that science is the process whereby facts about the natural world are established.

The second way in which usage of the term 'vibration' reveals the importance of 'science' for contemporary spiritualists is in the use of the term to represent not just 'what' mediums perceive, but also 'how' and 'why' mediums are able to sense the spirits of the dead. In this respect, the word 'explains' the process whereby mediumistic perception is possible. In offering an explanation, the term 'vibration' expresses the Spiritualist belief that 'natural' as opposed to 'supernatural' causes underlie mediumistic awareness. Mediums 'see' spirit vibrations through a natural, 'scientific' process. The term 'vibration', therefore, represents both the object of mediumistic perception and the 'explanation' for it. The use of the term 'vibration', as an explanation of the process whereby spiritualist mediumistic experiences occur, reveals another key element within the Spiritualist conception of science: namely, that science is the process whereby causal connections between events are revealed.

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As the 'object' of mediumistic awareness, the term 'vibration' has numerous possible referents. Spiritualists use the term to refer to spirits, emotional patterns, and individual 'auras'. It represents a spirit entity when a Spiritualist medium tells you, 'I have with me a grandmotherly vibration'. In this sense of the term, 'vibration' is synonymous with the word 'spirit'. It represents a problematic emotional 'residue' when the medium tells you that 'The house was filled with bad vibrations'. It represents the spiritual 'energy' of individuals, when the medium says 'You have a high vibration', or 'May I come into your vibration?'. Any of these vibrational 'objects' are understood by Spiritualists to be 'real' in an empirically verifiable, 'scientific' sense.

As an explanation, 'vibration' conveys for Spiritualists not just 'what' mediums perceive, but 'how' and 'why' Spiritualist mediums are able to sense the spirits of the dead. The explanation provided through this usage of the term is perceived as 'scientific' because it shows how mediumistic perception 'works' in terms of natural as opposed to 'supernatural' causation. Spirit vibrations are 'spiritual' in nature, but the mediumistic perception of them occurs through natural, explainable means. According to one Spiritualist informant, 'Vibrations are signals of energy which strike our own energy systems and create a vibrational pattern or resonance. We communicate with the Spirit World as two wave forms vibrating at compatible frequencies'. He later went on to say,

> Now, when we heal, when we take messages, or give messages, when we communicate with beings in a dimension that is removed from our everyday existence, we are opening ourselves up to receive a specific energy wavelength . . .
>
> There is always an alternating current going back and forth, and as you practice, you can open yourself up and slip yourself into that stream [of energy]. So the stream goes through you, back and forth, and as you become conscious of whatever information is being carried on that stream, you become able to channel it off and direct a small amount of that stream . . . You attune the frequency of your thought patterning to the frequency that you already find there . . .

This kind of 'mechanistic' explanation of vibration can also be seen in the following exchange. The narrator disclaims any knowledge of or interest in 'science', and yet presents an 'explanation' of 'vibration' which she assumes is 'scientific':

> Q: When you said you could 'sense her vibrations', what did you mean exactly?
> Leah: Well, everything in the whole world is energy. Everything is a form of pulsating energy. You knew that, right? And our thoughts and our feelings are all part of this energy field. And we're all vibrating at different rates. So if you put yourself into a different vibratory field, you can pick up the things that are in that vibratory field.
>
> Q: So if you do a reading, you are as they say, 'entering someone else's vibration'?
> Leah: Well, what we learned in Carol's [development] class, 'cause she's very practical and down to earth', she says [first] you roll in your own aura. I roll it in . . . like a fishing rod. I roll in my own energy field, and bring it in, the whole thing. And then you take this energy, and I have no idea [how]—I have no understanding of science or anything but that's okay, because I don't care—and it goes into your aura. And I'm kind of like in your aura at that point . . . Some people can feel the energy as it changes, too. But it's all a matter of energy, 'tuning in the knobs', or something

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> like that. You tune it in by your vibratory level, which I think is your spiritual thoughts, don't you think? That's what changes your vibration, are your spiritual thoughts or not your spiritual thoughts.

In both of these passages, 'sensing vibrations' is understood to be the process of receiving energy signals or 'wavelengths' from spirit sources or from the 'auras' of other living beings. Mediumistic perception is a matter of 'tuning' one's 'vibration' to match that of the being one wishes to communicate with. Spiritualist mediums can 'see' spirit vibrations, and 'read' auras because each emits a vibrational 'signal' that the medium has been trained to 'receive'. There is a cause and effect relationship implied in this usage of the term 'vibration', therefore, which avoids for Spiritualists any 'supernatural' overtones.[2] Mediums don't simply instantaneously and inexplicably 'know' what spirits think; rather, they 'know' because they have attuned their 'vibrational frequency' to that of the spirit entity, allowing messages to be received.[3]

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Testing the Spirits

Anthropologist Irving Zaretsky notes (1977, pp. 188–189) that terms such as 'vibration' as used by Spiritualists are difficult to define because they 'do not have demonstrable material referents'. Spiritualists themselves often have a difficult time defining argot terms to outsiders for this very reason. Nevertheless, for many Spiritualists, it is entirely possible not only to define the term 'vibration', but to demonstrate the empirical reality of spirit vibrations in a scientific sense. Spiritualists have established their own criteria for establishing the legitimacy of Spiritualist perceptions, and articulate a view of science in which evidential testimony, coupled with empirically verifiable data, constitutes scientific evidence. According to Spiritualist perceptions, messages from Spirit are understood to constitute 'proof' of continued existence after bodily death. However, as such, both the source and content of messages must be open to verification for Spiritualists if the 'fact' of mediumistic perception is to be established. Alternative explanations for Spiritualist perceptions are always possible, and consequently the 'truth' of the spirit hypothesis requires empirical support.[4]

According to Lily Dale development class leader Tom, not all messages come from Spirit. Some, he pointed out, come from the medium's own subconscious mind. He told us,

> It's not that those thoughts can't be right also. It's only, when you stand on the platform and claim to speak for Spirit, you must be sure you are speaking for Spirit . . . When you heard those voices, did you know it was Spirit? You must test them out. Ah, suppose Sister Mary comes. Sister Mary tells me strange things, and I think maybe I've lost my marbles. 'Ok, Sister Mary, tell me. Where were you born? Where'd you come from? If you can tell me all that stuff . . . you can identify yourself. Let's go check it out. Where were you buried?' You understand? Test the spirits! The Bible says, test the spirits! For God's sake people, test the spirits! If they can't stand the test, to hell with them!

For Spiritualists, the point of 'testing' the spirits is to establish that mediumistic perceptions are genuinely true in an empirically verifiable sense. When a Spiritualist medium claims to perceive a 'grandmotherly vibration', for example, s/he is making a truth

claim about the objective reality of the spirit entity, based on a subjective experience. Although such experiences are subjective, the spirit itself is considered objectively real. Since the perception of spirit vibrations is not inter-subjectively testable, however, the 'truth' of spirit existence must be verified in other ways.

Spiritualists have established their own criteria by which spiritual and revelatory experiences can be 'verified'. By 'testing' the spirits, secondary 'objective' evidence, such as records of birth and death for the spirit in question, becomes potentially obtainable. While the experience of communication with the spirits of the dead is in itself subjective, therefore, Spiritualists believe that objective evidence of mediumistic claims is available. As a consequence, most Spiritualists believe that the 'fact' of spirit existence can be demonstrated through empirical means. 'Testing the spirits' allows Spiritualists to claim 'objective' as well as testimonial 'proof' of their perceptions, and reinforces their conviction that Spiritualist truth claims are scientific.

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Scientists as Spirit Guides

Another way that Spiritualists see their religion as scientific is in the adoption of popular, deceased scientists as spirit guides. Some of the most prestigious and authoritative spirit guides claimed by Spiritualist mediums have been scientists. Benjamin Franklin was an extremely popular spirit guide in the nineteenth century, and Albert Einstein is drawn upon frequently by contemporary Spiritualists to articulate and explain mediumistic phenomena. In the adoption of deceased scientists as sources of spiritual wisdom, Spiritualists reveal yet another element of their perception about the nature of science: science is authoritative, and scientists are the pre-eminent sources for authoritative knowledge about reality as such.

In the nineteenth century context, Benjamin Franklin was the spirit guide of Spiritualism founder Kate Fox; British reformer and 'father' of British Spiritualism Robert Owen; and American Supreme Court Judge John C. Edmonds, among others. Well-known nineteenth century Spiritualist and Quaker Isaac Post (1852, pp. 148, 150) also claimed Benjamin Franklin as one of his spirit guides, and recorded the following message from him:

> Because I desire to promote truth, and not error . . . I [tell you that] there *is* a way to gain *certain* information, and that is, to strip the mind of everything acquired by books, by education, by tradition, or by any external source whatever, and then to apply to spirits that have been foremost in reforming the world.

According to this message, true knowledge about the world is not to be found in books, but rather in the wisdom of departed human spirits. Not just any spirits will do, however: only those who have been 'foremost in reforming the world' can provide certain knowledge of the world. As it is Benjamin Franklin, the man popularly credited with the discovery of electricity that makes this claim, the assumption that *science* is the path to knowledge is emphasized, for it is Franklin and other scientists like him who are the true world reformers. Indeed, from the Spiritualist perspective, Benjamin Franklin did more than any other scientist to transform the world, for it was he, they believe, who worked out the scientific method whereby spirits could communicate with the living. According to the editor of the nineteenth century Spiritualist newspaper *Shekinah* (1853): 'We are assured that *he* first worked out the problem by which beings in

heaven can communicate with beings on earth through the potential agency of magnetic forces. What spirit gone heavenward would be more likely to have accomplished it?'

Symbol of Einstein

In the contemporary twenty-first century context, it is Einstein rather than Franklin who has become the 'scientific' source of spiritual knowledge and authority. Einstein and Einstein's theory of relativity are consistently drawn upon by Spiritualists to legitimate and explain Spiritualist phenomena. Einstein himself is understood to take an active role in ongoing scientific breakthroughs. As one Spiritualist minister from the Spiritualist community of Lily Dale, NY told me,

> Where do you think inspiration comes from? It comes from your spirit guides. Everyone who has ever lived on earth now lives in the spirit world. Adam's there and everyone else since. Albert Einstein. Sigmund Freud. They're all there, the whole mob of them, waiting to be of service. Mind, they're all busy—Freud, for example, he probably works in the hospitals [and] Einstein, he's helping some research physicist with a math problem ... Where do you think most inventions come from? They come from the spirit world ...

If inspiration and inventions come from the spirit world with the assistance of spirits such as Freud and Einstein, then three conclusions follow from this fact for Spiritualists. First, science is dependent upon spirits for advancement: without the aid of deceased scientists in the spirit world, living scientists would not receive the inspirations needed to help scientific progress. Even Einstein himself was the beneficiary of this kind of spirit help, according to one informant, who told me that the formula $E = MC^2$ came to Einstein in a vision. Second, science is a worthy pursuit, since scientists continue to work on their science in the spirit world, and to communicate that work to living scientists. If science had no redeeming spiritual value, one presumes, spirits would not continue to pursue it in the afterlife. And third, science as properly understood supports, reinforces and proves the reality of the spiritual dimension, for science is the means by which the world can be accurately and entirely understood and described, and the world clearly contains (for Spiritualists) a spiritual dimension.

Although the language and symbols of science generally are drawn upon in support of Spiritualist claims, the scientific theories of and the symbol of Einstein are some of the most prestigious sources for explanation and legitimation of Spiritualist claims. As science writer David Cassidy (1995) notes, Einstein's theories and Einstein himself as an iconic symbol of the modern scientist has had a huge impact on the modern western imagination. Within the context of Spiritualism, Einstein is drawn upon to support a whole range of spiritualist phenomena, from astral travel and telepathy to precognition. According to the Lily Dale, NY minister cited above, for example, it was Einstein who 'scientifically proved' that precognition is possible. She told me,

> As far as time, I think it's irrelevant. We only have time on the earth plane anyway. I think it was Einstein who said that. You know, time is relevant (sic) and 'cause they [material objects] go through space', it, everything, slows down. I think we can go forward in time, we can go backwards in time, we can go sideways in time. We see it

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> as [if] we're just going this way with time [forward], but I don't think so. I don't have the scientific verbology to explain it, but I think [that] there are many scientists who could explain away time. I think it's our belief that makes it a reality for us . . . There's only limitations to the physical, the mind transcends all of that, the mind can go in any direction, forward, backward, sideways. And they've proven it with all the inventions they've made.

This passage expresses a viewpoint held by most Spiritualists regarding the nature of time. Only our 'belief' in time makes it 'a reality for us'. We can step outside the bounds of linear time to travel forward, backwards, and 'sideways', because time is not 'real' except as a concept to which we are accustomed. A Toronto-based medium reiterated this claim when he told me 'there is a part of your brain that doesn't know time. That's why when you sleep at night you can dream into the past, present, future . . . time is a belief system [within which] you can learn a lot of things [but] its just a belief system'. According to both informants, the human mind is capable of 'transcending' time. And according to Ilene, the Lily Dale minister, it was Einstein who proved this to be true, for it was Einstein who said that 'we only have time on the earth plane anyway'.

If time is just a 'belief' that we mistakenly hold, it should be possible to transcend linear time and travel to both past and future. According to Tom, the Toronto-based Spiritualist medium and psychic, this is precisely what Einstein's theory of relativity proved to be true. He told me,

> I don't believe in predetermination. I don't buy it. Time is not set. There's a whole different kind of theory involved [in visionary experiences]. Let me throw this out to you, it's fascinating, fascinating. Einstein, time, and travel in time. Einstein proved that time was not set. His whole theory that one is able to travel in time by being able to see the future, it's possible, it's possible. It's been scientifically proven that that is indeed possible. And if we can travel in time physically, can we not travel in time in our own mind? And if we can travel in our own mind, is it not possible to perceive what that life is like, and what is happening there [in the future]? I think THAT is how our visions come, very often.

Tom's claim that time travel was a 'scientifically proven' possibility is a clear reference to Einstein's theory of relativity. As Tom claims, it was Einstein who 'proved' that 'time was not set'. Einstein's whole theory, according to Tom, is that 'one is able to travel in time by seeing the future'. As Tom says, 'It's been scientifically proven that that is indeed possible'. Tom is drawing on Einstein's theory explicitly here to 'prove' that precognitive visions are a possibility. In a fascinating twist, Tom also uses Einstein's theory in the above quote to justify the fact that predictive visions are not always correct. After all, 'time is not set', and as a result, a precognitive vision can only reveal what *might* happen, not what *will* happen: human action through the exercise of free will might invalidate the content of the vision. In this context, therefore, both 'true' and 'false' mediumistic visions of the future receive 'scientific' legitimation. It is through the 'scientifically proven' possibility to travel in time that mediumistic visions 'come', but since 'time is not set', these visions are given a 'scientific' rationale for being wrong. Clearly, as sociologist Eileen Barker (1980, p. 99) notes, science can be used to provide a powerful explanation for almost any religious claim.

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Spiritualization of Science

The adoption of Einstein and the theory of relativity as symbols of legitimating authority into the Spiritualist idiom of spirit possession reveals the status that 'science' holds for many Spiritualists today. Einstein is admired as a larger than life figure by many Spiritualists precisely because his status is that of the 'foremost scientist of the twentieth century' (Paul, 1982, p. ix). The theory of relativity is used by Spiritualists to 'explain' their experiences because they believe it to provide orthodox scientific support for their beliefs. Because 'science' is understood by Spiritualists to be 'factual', and 'descriptive of reality', incorporating Einstein and the theory of relativity into their belief system allows Spiritualists to present their own beliefs and experiences as 'true' in an empirical, 'scientific' sense. Since Spiritualists 'know' that what they experience is 'true', they also 'know' that it must be compatible with and explainable through 'scientific' means.

The Spiritualist idealization of 'science' as 'truth' does not prevent many Spiritualists from being critical of what they perceive to be the 'narrowness' of orthodox science, however. The incorporation of Einstein into the Spiritualist idiom of spirit possession does not simply reveal the prestige in which science is held. It also reveals the 'spiritualization' of a major scientific figure. Einstein may have been a genius when he lived on 'the earth plane', for example, but as mentioned earlier, the formula $E = MC^2$ is said by Spiritualists to have appeared to Einstein in a vision. Now that Einstein is a spirit himself, he is giving other scientists the benefit of the knowledge he has gained in the spirit realm. Scientific advances on earth depend upon the help of spirits like Benjamin Franklin and Albert Einstein. By refusing to recognize this 'fact', mainstream science itself is 'unscientific', for it fails to accurately describe 'reality' as it 'truly is'.

Reality, for Spiritualists, includes more than the physical world around us. It also includes a spiritual realm. Although Spiritualists insist that the spiritual realm is as 'natural' as the physical realm, they argue that it both supersedes and encompasses the material world recognized by orthodox science. The 'vibrations' of the spiritual realm are simply 'higher' than earthly vibrations, and have consequently gone unnoticed and unmeasured by scientists. As a result, orthodox science is failing to describe reality in its fullness. In the lengthy narrative below, Hamilton, Ontario medium Richard argues that until orthodox science takes the spiritual realm into account, scientists will continue to fail in their attempts to understand and accurately describe 'reality'. He told me,

> One of the first things that came through to me, and it's one of things that I've never passed on to anybody, my guides told me the reason that Einstein's theory of relativity is still a theory and not a law is because they're using **c** as the wrong coefficient. They're using the speed of light as a constant, but **c** is not a constant, **c** is a variable. **c** is the living vibratory rate of the mass being used. So at any rate, I've got all these formulas, how to arrive at **c**, how to arrive at the frequency of living matter. And all matter is living, by the way ...
>
> Anyway, wavelength frequency is basically the inverse of Lambda, okay, if you're listening to one hundred megahertz, right? Which is one hundred times ten to the eighth power, okay? Then the wavelength is the reverse of that, the actual length of it, is the inverse of that, one over that. So if it was one times ten to the eighth, you'd have one times ten to the minus eighth, or sorry, ten nanometres.
>
> So, knowing that from electronics, [I came up with] the frequency for the living

> vibratory patterning after I went through a bunch of pretty simple mathematical equations ... So I think the formula, I can't remember exactly but I thought Lambda was one over twelve pi 'r', I'm pretty sure that's what the formula worked out to be. Oh, no it wasn't, it was one over twelve pi co-sign 'r', wham! That was it.
>
> At any rate, that gives you the reason why Einstein's theory of relativity doesn't work, because all of our mass tables are off. They actually measure something like that, and it's vibrating so fast they haven't been able to slow it down to measure it accurately. They're measuring more. Right? The size, cause it's going back and forth, it's taking up more space, than it actually is. So it's throwing all our mass tables out, just a little bit, but they are out.

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In Richard's narrative, the importance and prestige of science are clearly apparent. Richard uses the language and symbols of 'science' to articulate his revelatory mediumistic experience, and the content of the 'message' he receives is itself 'scientific'. Within the context of Richard's vision, the importance of 'science' as a legitimating discourse has influenced not only how the vision should be expressed, but also what the vision itself revealed. Richard's vision can therefore be seen as an illustration of the importance of 'science' in the contemporary Spiritualist context.

Richard's vision reveals more than just the importance of 'science' to contemporary Spiritualists, however. It also reflects the critique of mainstream science prevalent within contemporary Spiritualism. In his narrative, Richard claims that new scientific knowledge was revealed to him by his 'spirit guides'. This claim echoes those made by nineteenth and early twentieth century Spiritualists that it is through the intervention of spirit entities that scientific advancement on 'the earth plane' is possible. The spiritual realm plays a role in the development of science, according to Spiritualists, a role that mainstream scientists refuse to acknowledge.[5]

The content of the new 'scientific' knowledge revealed to Richard also reflects the critique of science prevalent within Spiritualism. Richard's spirit guides informed him that the reason why Einstein's theory was 'still a theory and not a law' was because orthodox scientists were failing to make accurate measurements of the mass of the universe. 'Einstein's theory doesn't work', according to Richard, 'because our mass tables are off'. Mainstream scientists keep making faulty measurements because they fail to account for the spiritual vibrations of all matter in the universe. They are using '**c** as the wrong coefficient'. Since all matter is actually vibrating 'back and forth' so rapidly that it can't be measured using orthodox means, scientists will never be able to discover the correct coefficient for **c**. It is only when 'the frequency of living matter' is taken into account ('and all matter is living, by the way ...') that accurate measurements can be made. Once the 'fact' of the spiritual vibration of matter is accepted, 'a bunch of pretty simple mathematical equations' will give scientists the correct measurements to describe the universe accurately. According to Richard, the necessary equation to arrive at 'lambda' is 1 over 12 pi co-sign r. This equation could only have been achieved with the help, guidance, and knowledge of the spirit realm.

Richard certainly made the most use of 'scientific' discourse of any of the Spiritualists with whom I worked, making ready use of 'scientific' language and symbols to express his experiences and beliefs. Acceptance of the central meaning of the narrative above,

however, is not confined to Richard alone. In the narrative above, Richard claims that the physical world and the spiritual world are part of the same reality: attempts by mainstream scientists to 'measure' the physical world are incomplete, because they fail to account for spiritual 'vibrations'. Several of the Spiritualists with whom I worked during the fieldwork period expressed similar ideas, although not in quite the same elaborate fashion.[6] The belief that reality encompasses both 'spiritual' and 'material' existence, however, is integral to Spiritualist belief. No matter what the degree of idealization of 'science' found within Spiritualism, therefore, all Spiritualists agree that orthodox science is too 'narrow' if it cannot encompass this 'truth'. As a consequence, Richard's narrative can be taken as illustrative not only of his own idiosyncratic experience, but also of communal Spiritualist assumptions about the nature of 'science' and 'reality', and of communal Spiritualist critiques of mainstream science.

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Popular Science

According to theologian and science writer Langdon Gilkey (1987, p. 167), 'we live in an advanced scientific culture. The first implication of this is that science is now thoroughly established . . . By established I mean, first, that science is now utterly necessary for almost every aspect of our life—for the production of goods, agriculture, medicine, communication, travel, self-defense, and so on—and thus does the society unquestionably support it, pay its bills, and revere it'. One result of this scientific pre-eminence in everyday life has been the acceptance of scientific knowledge as authoritative by individuals themselves untrained in the scientific disciplines. Often, however, the perception of what constitutes 'scientific knowledge' undergoes a transformation in the eyes of the lay public. A lot of contemporary scientific theory, knowledge and practice are no longer comprehensible to those outside of specific scientific disciplines.

'Science' in popular perception frequently differs from that of members of the scientific community. Sociologist Oscar Handlin (1972) has called this transmuted concept of science 'popular science'. According to Gilkey, the concept of 'popular' science has been borrowed from the study of religion. In the terms of religious studies, he notes (1987, p. 168), 'popular religion' develops when 'an established religion then takes on, as a part of itself, local, age-old, often deviant or bizarre . . . syncretistic forms'. Within the realm of science, 'popular science' builds upon the basis of orthodox science, but is not confined to orthodox interpretations or understandings. As Handlin (1972, p. 266) argues,

> Since the explanation of the scientists was remote and incomprehensible, a large part of the population satisfied its need for knowing in its own way. Side by side with the formally defined science there appeared a popular science, vague, undisciplined, unordered and yet extremely influential. It touched upon the science of the scientists, but did not accept its limits. And it more adequately met the requirements of the people because it could more easily accommodate the traditional knowledge [excluded or ignored in orthodox science].

Members of the scientific community call popular science and the popular perceptions of orthodox science 'misconceptions'. According to McCain and Segal (1982, p. 12), two of the most common misconceptions of science are that science is primarily aimed at accumulating facts and that science is exact (that it accurately describes reality and can

therefore prove without question its own presuppositions). Both of these 'misconceptions' are linked to the perception of orthodox science as 'authoritative'. Gilkey (1987, p. 170) calls science the 'paradigmatic and so sacral form of knowing' for North Americans. Barnes and Edge (1982, p. 2) call science 'near to being *the* source of cognitive authority: anyone who would be widely believed and trusted as an interpreter of nature needs a license from the scientific community'. Science, therefore, carries immense weight and prestige in popular perceptions as a pre-eminent means of knowing. As Gilkey (1987, p. 171) then notes, 'in a scientific culture the step ... from regarding science as the most immediately useful and so the paradigmatic form of knowing (which it is) to regarding it as the *only* form of knowing is ... short'. With the perception of science as the sole authoritative means of knowing, any body of knowledge accepted by individuals or groups as legitimate must, *ipso facto*, be scientific within the conceptions of popular science.

Within Spiritualist perceptions, science represents that means to knowledge which is ultimately authoritative, factual, and exact. As a result, 'truth' and 'science' are often equated, if not confused. If an observation or perception is 'true', it must also be scientific. This blurring of the boundaries between 'science' and 'faith' results, as Handlin (1972, p. 267) notes, in the acceptance of 'no test of validity save experience ... One took the little pills; the pain went away. One heard the knocking; the spirits were there. The observable connections between cause and result were explanation enough' to make them 'scientific' within popular views.

The acceptance of science as paradigmatic for articulating truth claims about the world does not mean that Spiritualists or other members of the lay public blindly accept every claim made by mainstream scientists. Rather, research has shown that the public is increasingly mistrustful of conflicting and competing claims by scientists (Wynne, 1995). As sociologist of science Doroth Nelkin (1995, p. 453) notes, 'the willingness of scientists to lend their expertise to various factions in widely publicized disputes has undermined assumptions [held by the general public] about the objectivity of science, and these are precisely the assumptions that have given scientists their power as the neutral arbiter of truth'. Within the Spiritualist context, this scepticism of the authority of science extends not to the ultimate value of science for articulating truth, but to what sociologist of science Thomas Gieryn (1995, p. 405) calls the 'cultural map' of science, wherein competing individuals and groups attribute to science those qualities that best support their ideological agendas. What Spiritualists share in common with members of the scientific community is the positivist assumption that science is fundamentally the means by which accurate descriptions of 'reality' may be obtained. Where they differ is in terms of the methods whereby knowledge about reality can be obtained, and in the cognitive map of reality that they perceive. While Spiritualist perceptions of science might well be 'misconceived' according to orthodox scientific views, therefore, both draw upon the same epistemological concern to understand and describe reality 'as it truly is' (Barnes, 1985).

Extending Science?

It is clear that Spiritualist perceptions of science reflect popular rather than orthodox views of science. It is equally clear, however, that seeing their religion as legitimately 'scientific' is integral to the Spiritualist belief system. The adoption of scientific language and symbols reveals the ongoing importance of 'science' in the Spiritualist context. For many Spiritualists, the language, symbols and theory of science have become the means

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to express the 'truth' of Spiritualist belief. However, this 'truth' surpasses the boundaries of establishment science even while it uses 'science' as the medium of its expression.

In their claims to scientific legitimacy for spiritualist experiences, and in their incorporation of scientific language and symbols into their system of belief, Spiritualists paradoxically reflect the success of the nineteenth century positivist strategy to make 'science' the sole legitimate and authoritative discourse within which to make truth claims about the world, while simultaneously rejecting the materialist and exclusionary emphases of scientific positivism. Spiritualists continue to reflect 'Baconian' ideas about the nature of scientific 'truth', for example, in that Spiritualists uphold the right of all careful observers to claim 'scientific' legitimacy for their experiences. They continue to assert that 'facts' can be learned both empirically, through observation of the world, and through inspiration (or revelation) from the spirit world.

Spiritualists reject positivist criteria by which 'facts' can be established, however, and put forward instead their own criteria for evidence whereby spirit revelations can be confirmed (in principle) by reference to the material world. Spiritualists have taken the fundamental positivist assertion—that science can fully and accurately describe the world—and have transformed it into a platform from which spiritual experiences gain legitimacy and spiritual convictions are expressed. For Spiritualists, their own role and that of the ideal role of scientists is ultimately to describe the universe in its material and spiritual entirety. Science, as culturally 'mapped' by Spiritualists, becomes the ideal tool for doing exactly this, for Spiritualist conceptions of science can encompass both the empirical and the spiritual realms.

Like the utilization of scientific language to communicate religious truths, the adoption of Benjamin Franklin and Albert Einstein as symbols of authority into Spiritualist discourse reveals both the idealization and the criticism of science expressed by spiritualists. Because 'science' is understood by Spiritualists to be the pre-eminent means of communicating truth, incorporating Benjamin Franklin and the concept of 'electricity' or Albert Einstein and the theory of relativity into their symbolic system allows Spiritualists to conceptualize their experiences as in accord with science; as 'true', in other words, in a 'scientific' sense. It also reveals, however, the 'spiritualization' of major scientific figures, and consequently a criticism of the boundaries of mainstream science. Since 'true knowledge' and 'most inventions' are the product of spirit-induced inspiration, according to Spiritualists, incorporation of scientists as religious symbols reinforces both the prestige which science holds for Spiritualists (after all, if spirits are interested in science, surely science is a worthy pursuit), and the perception common among Spiritualists that orthodox science limits itself by refusing to recognize a spiritual realm. If scientific advancement and the accumulation of knowledge about the world is dependent on spiritual aid, the failure of establishment science to encompass a spiritual as well as physical dimension becomes a serious limitation within establishment science, for it means that scientists are failing in their ultimate goal: the goal of accurately describing the truth about the world. They are also, as a result, failing at the ultimate human purpose—that is, to progress, both in knowledge and in wisdom about the world.

Contemporary Scientific Positivism?

Science as understood within the scientific community and science as understood within the Spiritualist community are not the same thing. According to Spiritualist perceptions,

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science is the process whereby 'facts' about the natural world are discovered and laws regarding the nature of the world are articulated. Beyond this, however, science is also understood to be authoritative. The theoretical, falsifiable and contingent nature of orthodox science as articulated by theorists such as Thomas Gieryn (1983, 1995) goes unacknowledged within Spiritualist perceptions.

Although there are many factors to account for this, one of the most significant may be that science is frequently presented to the public in just this way. In the nineteenth century, science emerged as a professional discipline in part because of the strong positivist discourse that emphasized the pre-eminence of science as the path to truth. Religious 'truths' were specifically and intentionally marginalized so as to free the emerging discipline of science from the 'shackles' of religious faith. Although the scientific community at the theoretical level primarily rejects positivism today, it is nonetheless the case that contemporary scientific discourse is frequently structured so as to convince the lay public of the authority, importance and veracity of scientific knowledge (Mulkay, 1979; Gieryn, 1983, 1995; Downey, 1988).

According to anthropologist Gary Downey (1989, p. 32), the discourse of members of the scientific community when speaking to the lay public is often structured deliberately so as to establish the authoritative nature of scientific knowledge. This authority is then drawn upon to emphasize the credibility of the individual's own specific theoretical position owing to its 'scientific' (as opposed to political, ideological, or religious) nature. The rhetorical devices by which members of the scientific community establish their own credibility require them to invoke the authoritative, rather than theoretical and contingent view of science.

The presentation of science in semi-positivist terms as authoritative, 'factual' and 'exact' is particularly prominent in the writings of science writers intent of 'educating' the lay public about the incompatibility of science and religion. As Jon Turney (2001) notes, the majority of science writing that touches at all on the issue of science and religion assumes that religion and science are incompatible. Some science writers take this assumption a step farther and attempt to debunk religious belief by showing just how incompatible it is with contemporary science. Perhaps one of the most paradoxical observations arising from the examination of Spiritualist claims to scientific legitimacy is that similar perceptions of 'science' can be found in the very literature intended to discredit religious attempts to 'colonize' scientific discourse.

There has been a great deal of sceptical literature published since the 1970s criticizing and challenging the religious adoption of 'scientific' language and symbols (Basil, 1988; Edwards, 1988; Gardner, 1988; Harris, 1988; Hines, 1988; O'Hara, 1988; Owen and Sims, 1971; Price, 1978; Radner and Radner, 1982; Rothman, 1988; Seckel, 1988; Sagan, 1997; Stenger, 1988, 1990). This literature is part of what sociologist of science Thomas Gieryn (1983, 1995) has called the 'boundary work' of mainstream scientists, in which claims to authority, resources, and prestige are bolstered through interaction with the 'foil' of non-science. Ironically, as science and technology scholar David Hess notes (1993, pp. 61–69), this literature frequently constructs an image of 'science' as rational, impartial, authoritative and 'true' to combat what is seen as the 'foolishness' and 'pseudo-science' of groups such as Spiritualism or the Creation Science movement. In doing so, sceptical scientists reveal the same perception of science as the paradigmatic means to truth that leads many Spiritualists to adopt 'scientific' language and symbols into their religious discourse. The popular perception of 'science' as 'factual' and 'descriptive of

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reality', therefore, can often be reinforced by the very literature designed to criticize popular perceptions of science.

Conclusion

Spiritualists are concerned to integrate their religious experiences with what they perceive to be the pre-eminent source for authoritative knowledge about reality. Their appropriation and reinterpretation of scientific language and symbols provides one example of how mainstream science is translated or reformulated by those outside the confines of the scientific establishment. In their utilization of such terms as 'electromagnetic energy' to articulate the 'fact' of Spiritualist perceptions, Spiritualists reveal a common (mis)conception about the nature of science: namely, that science is primarily the process whereby facts about the natural world are accumulated and revealed. In their utilization of the term 'vibration' to communicate the 'mechanism' whereby mediumistic perceptions are possible, Spiritualists reveal another common perception about the nature of science: namely, that science is primarily the process whereby causal connections between events are established.

Within Spiritualist perceptions, the establishment of something as 'fact', and the identification of the causal mechanism underlying events, is sufficient in and of itself to establish the scientific nature of phenomena. Spiritualists confirm this 'scientific' nature by establishing criteria for evidence that allows for 'empirical' evidence in support of 'facts' attained via spirit revelation. In their emphasis on 'testing the spirits', Spiritualists reveal both an acceptance of the positivist emphasis on empirical evidence and yet paradoxically reject the materialist emphasis of scientific positivism. This paradoxical acceptance of positivism coupled with a rejection of positivist convictions is further seen in the Spiritualist adoption of deceased scientists as spirit guides. The adoption of figures such as Franklin and Einstein reveals the Spiritualist conviction that science and scientists are authoritative, but also represents the spiritualization of science through the figures of these deceased scientists.

The perception of science as 'factual' and 'authoritative' among Spiritualists may stem in part from the ways in which science is presented to the general public by both practitioners of science, and by those for whom 'science' serves a legitimating function. For example, as science writers McCain and Segal (1982) note, the popular media frequently presents science in just this fashion. They write (p. 10), 'we are all aware of the attempts to link science with such fascinating subjects as deodorants, gasoline additives, and false teeth. Whether or not these links are legitimate, they exemplify the advertisers' confidence that "science" has sufficient glamour and acceptance to be worth a few dollars' extra profit. Implied is the further assumption that the viewing, reading, or listening public does not understand science, so that an oblique reference to "science" will reduce them to helpless acquiescence. Whatever the effectiveness of this approach, it does reflect an assessment of popular views'.

According to the sociologist of science Barry Barnes (1985), such advertising ploys are effective because science has passed beyond what most people consider 'common sense'. He writes (p. 20), 'a good proportion of what today is common sense knowledge is the scientific knowledge of yesterday in another guise . . . but for all that the perceived gap between science and everyday life has never been wider. Most people see science, quite rightly, as an activity beyond their understanding'. As a result, scientific knowledge is

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accepted on faith: certain theories or concepts possess authority simply because they are (or are claimed to be) scientific. Similarly, the pronouncements of scientists possess authority simply because they are made by scientists.

In the Spiritualist context, however, the idealization and appropriation of science reveals much more than any kind of 'helpless acquiescence' or simple incomprehension of science as defined and practised within establishment contexts. Spiritualists have actively appropriated the language and symbols of science to communicate spiritual truth in response to the dominance and pre-eminence of science in our modern world. When members of the scientific establishment draw upon the authoritative image of science to bolster their own claims to legitimacy, or to debunk popular misconceptions of science, the perception of science as 'sacral' in the pursuit of truth is simply reinforced. As a result, science will continue to be colonized by Spiritualists and other religious groups seeking to assert what they know, intuitively and spiritually, to be true, for in Spiritualist perceptions, truth and science are inextricably linked. Although not the 'science' of the mainstream scientific community, this paradoxically positivist view of science does indeed 'more adequately meet the requirements of the people' (Handlin, 1972, p. 266) within the Spiritualist context. Spiritualist science accepts the nineteenth century positivist assertion that science is the pre-eminent path to truth, and transforms it into the basis for asserting the reality of the spirit world.

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Notes

[1]There are an estimated 200,000 Spiritualists in the United States today.

[2]Richard and Adato (1980, pp. 187–188) quote one Lily Dale woman whose ideas support this point. As she told them, 'There is no such thing as a miracle—all things exist and operate in obedience to the laws of nature. A miracle extends reason beyond natural laws ... this we cannot and do not accept'.

[3]In his discussion of parapsychology as 'deviant science', McClenon (1984, pp. 186–187) argues that the search for 'mechanisms' to explain parapsychological phenomena is a key element in parapsychologists' attempts to present parapsychology as 'scientifically legitimate'. 'In the search for mechanisms', he writes, 'the assumption is that, through diligent investigation, factors conducive to psi will be uncovered, replicability of experimentation can then be increased, and a valid theory explaining the factors which are psi conducive will emerge ... This orientation hypothesizes that psi will eventually either be integrated within mainstream science through this uncovering of its physical mechanisms or else science will be changed by the parapsychological research effort'. Contemporary Spiritualists are not as sophisticated in their attempts to discover the 'mechanism' behind mediumistic phenomena as parapsychologists are to find the mechanism behind psi, but the motivating factor—the search for at least the appearance of scientific legitimacy—appears to be the same.

[4]Spiritualists are not naive: alternative explanations for Spiritualist phenomena are always possible, including the possibility of fraud. As Lily Dale medium and healer Joel once told me in reference to the trance mediumship of another medium, 'I've seen better acting on "The Brady Bunch!"' a clear indication that seeing is not necessarily believing for Spiritualists. Spiritualists prefer to accept the spiritualistic explanation for phenomena, however, should empirical referents be available. As Hamilton medium Richard told me, 'Too many weird things have happened to me for me to discount it [the spirit hypothesis]. I've been told too many things that have turned out to be true to ignore what my guides are telling me. I'm not saying there aren't other explanations. But this is the one that makes the most sense to me'.

[5]In this perception, Spiritualists are probably not wrong. Physicist Victor Stenger (1990, p. 304) for example, writes: 'Not only has revelation proved unproductive as a source of knowledge about the universe, it has served to impede progress in knowledge ... still, the belief that knowledge can somehow be obtained by paranormal means persists. I have issued a challenge to New Age channelers or others claiming that they are in contact with spirits or superhuman entities, to prove their claims by asking their sources to provide the answers to certain fundamental questions about the universe. All of these questions should be answered by the normal development of science within the next decade, so this test

can provide us with definitive proof of a world beyond . . .'. Needless to say, Stenger doubts that such 'proof' will be forthcoming.

[6]For example, one visiting Lily Dale medium told me that 'God' 'flows through' the material world 'like an electrical current'. This idea, he suggested, is not easy for people with a materialistic mind set to accept. He said, 'accepting that . . . it's the ultimate leap in faith, a quantum leap, and a person that has the, ah, faith, is the word I'll use . . . can feel it. It's like an electrical current. That's how I would describe it . . . It's like electricity that flows through, the current that goes through the whole universe. God, Universal life force, whatever you want to call it . . . it's, you know, it's out there some place, we know that . . .'. For this medium and for Richard discussed above, spiritual reality is 'out there some place', and cannot be ignored or 'science' will remain incomplete.

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