

PARAPSYCHOLOGY: NATURALISING THE SUPERNATURAL, RE-ENCHANTING SCIENCE¹

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Introduction

Parapsychology has helped facilitate a modern discourse on purportedly “occult” and “supernatural” phenomena in which the authority of science occupies the high seat. In this article, parapsychology is defined as the organised attempt to create a scientific discipline out of a field of knowledge typically associated with the occult and supernatural. Taken in this sense, we may date its beginnings to the establishment of the Society for Psychical Research (SPR) in England in 1882, representing a group of scientists, philosophers and other scholars organised on the model of the scientific society or club, striving towards serious recognition by other scientific communities and professional societies.² In the early decades of the 20th century the approach of the SPR spread to other countries, spawning a discourse which transformed, in the 1930s, into modern professional parapsychology, famously headed by Joseph Banks Rhine at Duke University.

The attempt to establish a discipline for scientific research on phenomena typically considered “supernatural” attests, on the one hand,

¹ The research for this article was carried out as part of a PhD project on “Esotericism and Scientific Naturalism in the 20th Century”, supported by The Netherlands Organisation for Scientific Research (NWO). The chapter title has been audaciously borrowed and adapted from Frank Podmore’s *Naturalisation of the Supernatural* (1908), one of the earliest histories of psychical research written by a sceptical insider.

² Genealogies of psychical research can however be drawn in several different ways. A more comprehensive and global study would likely want to begin with mesmerism in the late 18th century, its reception in German *Naturphilosophie*, and the scientifically oriented segments of romanticism. The famous episode of the Swabian physician Justinus Kerner (1786–1862) and the mesmeric experiments with his patient Friederike Hauffe, the “seeress of Prevorst”, is one relevant early episode, while Baron Karl von Reichenbach’s (1788–1869) theories on the vitalistic “odic force” emanating from organic matter is another. For the present purposes I am more interested in the developments connected with what may be called “classical” psychical research, embodied in the psychical research societies of the late 1800s, which gave way to professional parapsychology in the 20th century. This story may conveniently be started in Britain.

to the central presence of the panoply of esoteric religious practices in the Victorian “occult revival”, especially spiritualism.³ On the other hand, organised psychical research also bears testimony to the unparalleled authority of the scientific project around the turn of the 19th century. Psychical research was born from an encounter between the scientism of the Victorian naturalists, who considered the methods of science the *via regia* to robust knowledge, and the worldview, practices and rhetorical claims of spiritualists, occultists and liberal Christian reformers (cf. Turner 1974; Oppenheim 1984). This nexus gave rise to a discourse in which the invocation of scientific authority remained the primary legitimising strategy, while the ontology and worldview of scientific naturalism came under contestation.

Opting for a thematic approach to the history of parapsychology, I will look at three interrelated types of questions:

- I *Philosophical* issues, of an epistemological nature, raised or implied by the project of “naturalising the supernatural”;
- II Sociological issues concerning the *professionalization process* of parapsychology, and;
- III Strategies for *claiming and maintaining legitimacy* for what was, and still remains, a contested field of knowledge.

Assessing the final impact of parapsychology and the degree to which its strategic choices and alignments succeeded I argue that the project largely failed in its intended ambitions of creating a “science of the supernatural”. Instead I suggest that it has been highly influential in the context of contemporary religion and popular culture. By relating parapsychological discourse to the analytical concepts of “paraculture” (Hess 1993) and “occulture” (Partridge 2004/5), I argue that parapsychology has been central to the dynamics of disenchantment and re-enchantment playing out in the late modern West. While it originally set out to naturalise the supernatural, the cultural significance of parapsychology is rather that it facilitated a re-enchantment of science and secular culture in the process.

³ For the context of spiritualism and the question of science and verifiability, see Cathy Gutierrez’ article in the present volume.

*Naturalising the Supernatural: Philosophical Issues**The Birth of Psychical Research from the Spirit of Naturalism*

The discourse of psychical research emerged from the engagement of occultism and spiritualism with the ideology and epistemic assumptions of Victorian scientific naturalism.⁴ Following intellectual historian Bernard Lightman (1987, p. 28), scientific naturalism emerged as “the English equivalent of the cult of science in vogue throughout Europe during the second half of the nineteenth century”.⁵ The philosophical influence of the British empiricists, particularly Locke and Hume, together with interpretations of Kant helped form the epistemological foundation of the movement, while the major scientific theories and discoveries coming out of the physical and life sciences were used to construct a consistent, monistic worldview.

The new perspectives on man’s place in nature suggested by evolutionary biology, the workings of the cosmos as uncovered by an expanding mechanistic physics, and the increasingly more refined laws of thermodynamics, were coaxed together and used in a polemical campaign to establish the authority of professional science in society (e.g. Barton 1998; Luckhurst 2004, p. 13; Turner 1993c, p. 181). Combining “research, polemic wit, and literary eloquence”, Frank Miller Turner (1993b, p. 131) writes, people like T. H. Huxley and John Tyndall “defended and propagated a scientific world view based on atomism, conservation of energy, and evolution”. Victorian naturalism became more than just a worldview and philosophical position, resembling an *ideological settlement* in Bruno Latour’s sense (1999, p. 310; cf. Luckhurst 2004, p. 12). By the 1870s the naturalists had largely succeeded in binding together and proposing answers for “the epistemological question of how we can know the outside world, the

⁴ The term “scientific naturalism” is typically used with several meanings. Primarily, I distinguish between two: 1) the Victorian intellectual movement described here, and 2) a set of philosophical positions that developed during the 20th century, some passing on the torch from the Victorians, others relying more on other intellectual developments, including American pragmatism and Vienna-circle logical positivism. For the latter variety, see Kitcher 1992; De Caro & McArthur, eds., 2004; Flanagan 2006.

⁵ Corresponding developments on the Continent include German (Prussian) scientific materialism (Gregory 1977), and Comtean “positivism” in France (Hecht 2003). For an overview, see Olson 2008.

psychological question of how a mind can maintain a connection with the outside world, the political question of how we can keep order in society, and the moral question of how we can live a good life" (Latour 1999, p. 310). "Agnosticism" was put forward as the proper epistemological and religious attitude; the soul was nailed to the material brain, itself a product of natural selection; varieties of social Darwinism and related evolutionisms offered solutions to societal problems; and a whole programme for educational, industrial and governmental reform was put forward as the way to advance Imperial ambitions and alleviate poverty and disease (Lightman 1987; Turner 1974, pp. 8–37; 1993b; Olson 2008, pp. 240–3).

The naturalists initiated an expansionist policy which aimed to introduce scientific thinking to all compartments of society, from medicine and education, to industry, economy and politics. This policy affected the founders of the SPR, and underpinned the project of psychical research (e.g. Turner 1974; Gauld 1968). While often revolting against certain implications of the naturalistic worldview, the early psychical researchers generally took the naturalistic *project* very seriously. In a sense, they took it to an extreme, holding that the obscure category of the "supernatural" could become a legitimate object of scientific inquiry; it was possible to naturalise the supernatural.

In order to fulfil the ambition of making a proper scientific study out of allegedly "supernatural" phenomena early psychical researchers needed to claim and redefine the category so that it could be accommodated within a naturalistic approach. In doing this, they were positioning themselves against a number of opponents, from various religious spokespersons to competing naturalistic perspectives. Indeed, even outside of the psychical research discourse the category of the supernatural had become a site of contestation in the 1880s, which was especially visible in the controversy over Christianity and agnosticism which followed in the wake of naturalist attacks on the authority of religion.⁶ In the following I will consider some of the major epistemological fault lines in the debates over naturalism and the supernatural.

Philosophically, naturalism is a somewhat elusive concept which has proved difficult to define (e.g. Stroud 1996; Putnam 2004; Flanagan 2006). On any reading, naturalisms across the board are opposed to

⁶ The papers collected in Huxley, Wace et al. 1889 testify to the significance of the late Victorian debate on agnosticism and the possibility of supernatural agency.

supernaturalism, leaving perhaps the real discussion at how each position defines “nature” (e.g. Stroud 1996, pp. 43–4; Flanagan 2006, pp. 432–3; cf. Kitcher 1992; Papineau 2007; De Caro & Macarthur, eds., 2004). Putting this question aside for the moment, it should be noted that naturalists have tended to disregard supernaturalism in a *specific sense*: it is primarily the inference of supernatural agency in *explaining* and *accounting for* occurrences in the natural world which is problematic. An “objectionable” kind of supernaturalism, argues the philosopher Owen Flanagan (2006, p. 433), is one that holds all of the following three statements to be true:

- i There exists a “supernatural being or beings” or “power(s)” outside the natural world;
- ii this “being” or “power” has causal commerce with this world;
- iii the grounds for belief in both the “supernatural being” and its causal commerce cannot be seen, discovered, or inferred by way of any known and reliable epistemic methods.

In other words, “naturalism” and “supernaturalism” are not to be seen as pairs of a strict dichotomy, but rather as extremities on a continuum. Since the objectionable supernaturalism holds *all* of the above, it is still possible to retain some concept of the supernatural without leaving the naturalistic project altogether. Differently put: there is not one, but several different ways in which the “supernatural” can be naturalised. Against this background we can make sense of the various solutions that were advanced in the late 1800s, homing in on the particular disagreement between the strict scientific naturalists and psychical researchers.

Huxley’s Agnosticism

The position most commonly associated with scientific naturalism in the late Victorian period explicitly rejects (ii) and (iii), while keeping the possibility of (i) open. This is the view of T. H. Huxley’s agnosticism; the facts counted, it differs from atheism (the rejection of all three) only in its suspension of judgment regarding the possibility of an entirely “unknown and unknowable God”. However, agnosticism remains free to emphasise the absence of any *reasons for belief* in such a deity. For this reason, critics often saw the two types of unbelief as indistinguishable.

Agnosticism for Huxley meant the absolute faith in an *epistemic principle*:

This principle may be stated in various ways, but they all amount to this: that it is wrong for a man to say that he is certain of the objective truth of any proposition *unless he can produce evidence which logically justifies that certainty....* That which agnostics deny and repudiate as immoral is the contrary doctrine, that there are propositions which men ought to believe, without logically satisfactory evidence; and that reprobation ought to attach to the profession of disbelief in such inadequately supported propositions. (Huxley 1889b, pp. 96–7. My emphasis).

While the agnostic position does not dismiss *a priori* the possibility of “supernatural agency” of some sort, it is important to appreciate the qualifying statement: certainty should not be stated *unless* one can produce evidence which “logically justifies that certainty”. Huxley’s agnosticism stressed the importance of suspending judgment in situations where the reasons for some phenomenon remain unknown. This principle was meant to contravene “God of the gaps” arguments, which jump to conclusions regarding supernatural agency in situations where explicable natural causes have not, as of yet, been forthcoming (e.g. Huxley 1889a, pp. 15–16). In the case of Huxley, this leads to a *de facto* or *a posteriori* denouncement of supernatural agency in the form of Flanagan’s second proposition. Huxleyan agnosticism may in this sense be described as “qualified disbelief”.

The psychiatrist Henry Maudsley’s tellingly entitled *Natural Causes and Supernatural Seemings* (1886) provides a good illustration of the naturalist’s expulsion of supernaturalism. Taking a reductionistic approach Maudsley concluded that claims about the supernatural could be accounted for by man’s inherent tendencies towards “malobservation and misinterpretation of nature”, sometimes coupled with genuine psychological disturbances; hallucinations, hysteria and the sort (Maudsley 1886, p. 354). Maudsley illustrates the Huxleyan point that one should start to look for explanations of seemingly inexplicable occurrences (and claims of such) among mechanisms that we *do* know something about. In Maudsley’s case, secure ground was found in our established knowledge of human nature, perception, and psyche.

From “Supernatural” to “Supernormal”

The naturalising strategies of hardliners such as Huxley and Maudsley stressed finding well-established natural causes for claimed supernatural occurrences to the extent where the category dissolved altogether.

Psychical researchers, seeking to establish an autonomous science of the supernatural, could not go so far. They needed a kind of naturalisation that could accommodate the phenomena without reducing them away as mere epiphenomena, illusions, or inferential errors.

Much of the intellectual effort to redefine the supernatural in the context of the SPR was carried out by the erudite classicist Frederic W. H. Myers (1843–1901), one of the founders of the society. With his Latin and Greek erudition, Myers composed a whole regime of neologisms to serve as technical terminology for the prospective discipline, most of which are listed in the glossary accompanying his posthumously published *Human Personality* (1903). Together with established psychological and biological terms we find such words as “panæsthesia”, “telæsthesia”, “cosmopathic”, and “metetherial”, along with the more enduring concept of “telepathy” (Myers 1903, Vol. 1, pp. xiii–xxii).⁷ To cover all these phenomena, states and pathologies, Myers introduces the concept “supernormal”, explicitly coined to replace the problematic “supernatural”.

Trying to get around the problem of contrariety with nature and natural law inherent in the concept of the supernatural, the supernormal refers instead to a deviance from “normality”. As Myers explained:

The word supernatural is open to grave objections; it assumes that there is something outside nature, and it has become associated with arbitrary interference with law. Now there is no reason to suppose that the psychical phenomena with which we deal are less a part of nature, or less subject to fixed and definite law, than any other phenomena. (*Ibid.*, p. xxii).

Similar to the strategy of the agnostics, Myers proposes a definition that moves away from the unexplainable towards the as of yet unexplained. We start to see the contours of a *residual* category: psychical research simply considers experiences and phenomena that fall outside the pale of established science. Implied is the claim that science has missed something.

Whereas Huxley had called for a patient suspension of judgement concerning such phenomena, the psychical researchers were not afraid to start theorising, and were also less concerned with restricting explanations to well-understood mechanisms. When Myers wrote that

⁷ Myers attaches an asterisk to the words that he claims to have personally coined. All the terms mentioned here appear with asterisks.

the supernormal comprised any “faculty or phenomenon which goes beyond the level of ordinary experience, in the direction of evolution, or as pertaining to a transcendental world”, he opened up for an entirely new order of explanations. This becomes clear when he adds that some psychical phenomena

appear to indicate a higher evolutionary level than the mass of men have yet attained, and some of them appear to be governed by laws of such a kind that they may hold good in a transcendental world as fully as in the world of sense. In either case they are above the norm of man rather than outside his nature. (*ibid.*, xxii)

In terms of Flanagan’s propositions, Myers accepts both (i) and (ii), but rejects (iii) by boldly placing any incursions from a “transcendental world” within man’s epistemic reach.

This does not mean that Myers and the other psychical researchers had to take claims about ghosts and spirit communications during séances at face value. The most popular explanatory models proposed for “supernormal” activity by psychical researchers in the 1880s and 90s did in fact imply a kind of reductionism of its own. The concept of *telepathy*, Myers’ most successful neologism, was put forward as the researchers’ pet theory for explaining the psychical phenomena of spiritualism, as well as some claims about apparitions, ghosts, and apparently “clairvoyant” dreams (e.g. Luckhurst 2002). To attach some conceptual flesh to these epistemological bones we should briefly look at the development and theorisation of telepathy in the SPR.

Telepathy: Towards a Naturalistic Model

Telepathy was coined, conceptualised and given an evidential basis through experiments early on in the SPR’s history, during the winter of 1882/3 (see Luckhurst 2002, pp. 69–75). Defined as “the communication of impressions of any kind from one mind to another, independently of the recognised channels of sense”, telepathy was hardly a satisfying explanatory *model* in the scientific sense. However, the oxymoronic “distant touch” (*tele-pathēin*) that it signified provided a starting point for alternative accounts of how mediums in “trance” seemed to know intimate details about deceased relatives. If they did not communicate with the dead there was still the possibility that they could read minds—in some cases perhaps even the minds of people not present at the séance.

After rudimentary experiments with people who claimed to possess the ability to read minds, most notably the infamous experiment with

the priest daughters Creery of Derbyshire, the SPR hastily concluded that there was indeed evidence for a telepathic effect. The conclusion would appear much too hasty: the young Creery sisters soon revealed by their own account that they had been using a simple signalling system to forge the impression of thought reading (for an early exposé, see Blackburn 1884). Nevertheless, telepathy immediately acquired a solid position in the psychical research programme, and its application as an explanatory model spread rapidly. In the most important major publication of the early SPR, the monumental *Phantasms of the Living* (1886), telepathy was brought in as explanation for hundreds of anecdotal reports of “apparitions” of the newly dead. The researchers hypothesised that instead of ghosts, it could be that hallucinations were produced through spontaneous cases of long-distance telepathy at the moment of death (Gurney et al. 1886, Vol. 1, p. xii).

However, as long as telepathy was not supported by an explanatory theory, and its evidential support was weak and questionable, the psychical researchers would have to tolerate the reluctance of colleagues. All they did, it seemed, was to replace one obscurity by another: *obscurum per obscurius*. To establish legitimacy it therefore became paramount for the scientists of the SPR to postulate some appropriate mechanism.

While psychical research has later come to be associated primarily with fringe psychology, it is worth pointing out that at this time, the main strategy was to make incursions into the territory of physics. The late 1800s was a period of great and startling discoveries in physics, the full significance of which were far from clear. In this context, psychical researchers found scientific “discursive levers” in the physical puzzles related to electromagnetism, the luminiferous ether, and the strange waves and rays that proliferated from physics laboratories (Luckhurst 2002, pp. 75–92; Noakes 1999; 2004; 2008b). It has even been suggested that psychical research in this period can be seen entirely as “an episode in late-classical physics”; the attempted explanatory models came from physics, and were related to state-of-the-art research (Noakes 2008b, pp. 326).

The most central mechanical model in the 1880s and 1890s concerned postulated “brain waves” and “fields” of consciousness. This theory was fleshed out by William Crookes (1892), E. J. Houston (1892) and J. Knowles (1899), pioneered by the leading SPR physicist Oliver Lodge. Lodge was a leading researcher of wireless telegraphy and radio technology, an authority on mechanical ether physics, and one of the central characters in the group of physicists that explored

Maxwell's equations and enhanced his theories on the electromagnetic field (Hunt 1992; Rowlands 1990; cf. Jolly 1974). This expertise was invested in his approach to psychical research as well (e.g. Grean Raia 2005; 2007).

Although he claimed not to support any definite theory of telepathy, Lodge offered the following suggestive analogy in 1884:

Just as the energy of an electric charge, though apparently on the conductor, is not on the conductor, but in all the space round it; just as the energy of an electric current, though apparently in the copper wire, is certainly not all in the copper wire, and possibly not any of it; so it may be that the sensory consciousness of a person, though apparently located in the brain, may be conceived of as also existing like a faint echo in space, or in other brains, though these are ordinarily too busy and pre-occupied to notice it. (Lodge 1884, p. 191).

With the development of wireless telegraphy and the discovery of strange phenomena such as Röntgen's "x-rays" and Becquerel's uranium emissions, the linking of telepathy to Maxwellian physics seemed plausible and convincing to many.

But one problem proved fatal in the longer run: there seemed to be no correspondence between the distance of the communicating minds and the accuracy of the effect. This was troublesome to physicists and philosophers with an understanding of classical mechanics. It clearly violated the inverse-square law, which states that the force of any physical effect is inversely proportionate to the square of the distance from its source. If telepathy were indeed an electromagnetic phenomenon, occurring within mechanical physics, its effect would be expected to decrease with distance. By the early 1900s the leading physicists of the SPR were forced to conclude on this basis that telepathy was just as badly in need of an explanation as any spiritualist hypothesis (e.g. Lodge 1902; Barrett 1904; cf. Noakes 2008b, pp. 327–8). Indeed, the explanatory failure helped facilitate a new regard for spiritualism which was going on within the psychical research communities in the early decades of the 20th century.⁸ It was not until the 1920s and 1930s that serious attempts were again made to link psychical research with the professional sciences.

⁸ Lodge played a vital role in this development for other reasons as well, through his immensely popular book *Raymond* (1916).

*Paranormal Professionalism: From Psychical Research to Parapsychology**Networks, Boundary-Work, and Professionalisation*

In the 1920s, after 40 years of organised psychical research, there was still no consistent “research programme”, in the Lakatosian sense (Mauskopf & McVaugh 1980; cf. Lakatos 1970). Researchers could not agree on fundamental issues such as what constituted proper methodology, what should be the frame of interpretation, or even what kinds of phenomena properly belonged to the program (Mauskopf & McVaugh 1980, pp. 1–24). The common view is that it was the work of Joseph Banks Rhine (1895–1980), at the experimental parapsychology lab at Duke University in the 1930s, which presented the first real “paradigm” for psychical research (e.g. Collins & Pinch 1979; Alison 1979; Mauskopf & McVaugh 1980: 102–130; Beloff 1993, pp. 125–51).

While J. B. Rhine is often seen as the father of modern professional parapsychology, the stage had been set for professionalization already. This was largely due to the strategic choices of the somewhat overlooked British anthropologist, psychologist and social critic, William McDougall (1871–1938). McDougall launched a professionalising campaign in the 1920s, following the pattern of earlier professionalisers. He argued the importance of his field for allegedly threatening social and scientific challenges; he attacked rivalling disciplines, and challenged epistemological assumptions in a similar manner as the naturalists and early psychical researchers had done. On the one hand McDougall engaged in scientific “boundary-work” (Gieryn 1983; 1999), positioning psychical research vis-à-vis opponents and competitors. On the other, he attempted to conscript allies and build networks extending to other prominent discourses, including politics, ethics and religion. The importance of enlisting and mobilising extensive networks to scientific professionalisation is especially emphasised in approaches within science studies inspired by “actor-network theory” (ANT) (e.g. Latour 1985; 1999; 2005). The successful establishment of a scientific discipline depends on conscripting allies from extra-scientific as well as scientific discourses, in order to accumulate the necessary degree of social, cultural, and economic capital (cf. Bourdieu 1986).

Some of the abovementioned features are recognisable already with the early SPR. Indeed, the SPR’s relative success may primarily be explained by three factors, all of a social character. First, it was constructed over the model of a scientific society or club. It had regular

meetings where papers would be presented, it published proceedings, ran a journal, and various scientific committees. The founders took considerable care to emulate the social form of professional sciences, which made it easier to establish legitimacy. Secondly, the SPR managed to recruit among strategically important constituencies, mobilising an influential network. In addition to the Cambridge based founders were important physicists like William Barrett and Oliver Lodge, as well as later Nobel laureates Lord Rayleigh, J. J. Thomson, Charles Richet, and Henri Bergson. The network was extended to the realm of politics through Arthur Balfour, Sidgwick's brother-in-law and later Prime Minister of the U.K.

The social and cultural resources thus pooled together were crucial for establishing credibility and legitimacy for the pursuit of psychical research at the *fin de siècle*. Even if many of the scientific celebrities of the society were less than active members, sometimes even quite sceptical of the more enthusiastic members' research, sporting their names on the membership list provided the SPR with a cultural legitimacy-by-association which made the pursuit of psychical research impossible to neglect. A third reason for the SPR's success in this period was that its boundary-work towards spiritualist and occultist communities was swift and effective. Under the leadership of the ever more sceptical Henry Sidgwick it dissociated itself completely from the interpretations of the spiritualists, and was ready to dismiss the most extravagant claims associated with the "physical mediums" (i.e. those claiming to produce physical phenomena, such as levitation, rappings, and spirit manifestations) as universally fraudulent. In light of these factors it is interesting to note that the frail cultural legitimacy of psychical research largely disintegrated with the death of central members such as Henry Sidgwick, Frederic Myers and William James and the ensuing generational shift (collapse of network), together with the reorientation of the society towards spiritualism (collapse of boundary-work).

McDougall's Professionalising Campaign

Although interesting developments happened in European psychical research in the early decades of the 20th century, the professionalising campaign which concerns us here took place in the USA.⁹ William

⁹ See for instance Lachapelle 2005 for developments in France, and Gruber 1978, Wolffram 2003, 2006 for Germany. For overviews, see Beloff 1993, pp. 93–124; Mauskopf & McVaugh 1980, pp. 1–44.

McDougall arrived in Boston in 1920 after being offered William James' prestigious chair of psychology at Harvard. He was elected president of the American SPR in 1921, a position he used to combat the avid interest in spiritualism which at that time characterised the society. Instead he used public lectures and pamphlets to insist on a renewed alliance with the professional sciences, urging that psychical research be accepted as a university discipline. Going through the arguments McDougall advanced in the 1920s we may identify three integrated (and by now familiar) strategies:¹⁰

- I Aligning psychical research with other scientific, political and ethical discourses (creating networks);
- II Attacking competing disciplines within the universities (boundary-work), and;
- III Contesting epistemological principles seen as barring the inclusion of psychical research.

In his attempt to argue the relevance of psychical research McDougall linked the discipline to several discourses that today largely belong to the scrapheap of superseded or rejected ideas. McDougall was not afraid of defending controversial standpoints, and his attempts to knit psychical research together with other scientific and social discourses led quite unavoidably to several fascinating links. He was simultaneously a proponent of the Lamarckian theory of evolution, a neo-vitalist, a dualist with regards to the mind/body problem, and an ardent supporter of eugenic policies and reforms (Asprem 2010). Immediately after arriving in the US he delivered a series of lectures which were later published with the provocative title *Is America Safe for Democracy?* (1921). Here he argued the need for eugenic policies to improve the American genetic stock. This made him rather unpopular, even earning him the epithet “an American Nietzschean reactionary” (McDougall 1924, p. vii; cf. Jones 1987; Alvarado & Zingrone 1989).

In his 1922 support of scientific method in psychical research McDougall confessed that eugenics and psychical research were two of his greatest hobbies, adding that most people in the audience would probably find this an odd combination. Not so for McDougall, who contended that “these are the two main lines of approach to the most

¹⁰ For a thorough discussion of McDougall's role in the professionalisation of parapsychology, see Asprem 2010.

vital issue that confronts our civilisation—two lines whose convergence may in the end prevent the utter collapse which now threatens.” (McDougall 1934 [1922], pp. 58–9).

The perceived threat was that of biological *degeneration*, a concern that had haunted many critics since the late 19th century—especially those holding Lamarckian views on evolution (Olson 2008, pp. 277–94). These feared that a serious demographical imbalance would result from declining birth-rates among the educated classes. Since Lamarckians believed that social ailments such as alcoholism, crime and illiteracy had a strong hereditary basis, there was a concern that the imbalance would perpetuate, spin out of control and lead to social collapse. The response was found in eugenics.

McDougall argued that psychical research could assist eugenics in counteracting degeneration in two different ways. First, eugenics would seem more persuasive if Lamarckian evolution could be established as a fact. But a serious problem for Lamarckism was its incompatibility with the mechanistic conception of life, demanding instead some teleological theory. If properly established, the data of psychical research suggested some non-mechanical, perhaps vitalistic theory of mind and life that could better accommodate the principles of Lamarckian evolution. McDougall’s own theory of mind (which he termed “animism”) resembled the neo-vitalisms of Henri Bergson and Hans Driesch, and was, as theirs, defended partly on evidence from psychical research (McDougall 1961 [1911], pp. 347–54). The first role of psychical research, then, was as the empirical branch of a new non-mechanistic science of life, which could in turn act auxiliary to Lamarckian evolutionism and eugenic policies.

The second way in which psychical research could help eugenics in counteracting degeneration was more direct, and closely connected with the question of religion. Ever since the 19th century attacks on religion in context of the professionalisation of the sciences people had feared that a decline in religious sentiments under the growth of a materialistic philosophy would lead to a withering away of ethics. Indeed, the founders of the SPR had considered psychical research a possible way to counter this trend by finding reasons to believe in the existence of something like an immortal soul. Throwing in a bit of boundary-work towards other university disciplines, McDougall argued that psychical research was superior to both theology and philosophy in this regard, since it was truly scientific in character, and not merely speculative as the others (McDougall 1934 [1922], pp. 56–8).

But the argument to religion and ethics took a different turn as well, enforced with the logic of eugenics. The real problem with scientific materialism was, according to McDougall, that a materialist might see no reason to procreate. Materialists are not compelled to considering the “sanctity of human life”, which had been integral to Christian civilisation, and thus they feel no moral obligation to keep populating the world with new generations. McDougall saw this as perpetuating the demographical problem because, according to him, loss of faith and morals due to materialism was most widespread among intellectuals. Providing the intellectual elite with new reasons to procreate was paramount, and psychical research could do exactly this (McDougall 1934 [1922], p. 59).

As part of an argument for the professionalisation of psychical research and its inclusion as a university discipline, it was, in short, presented as a possible saviour of Western civilisation amidst the impending dangers of a loss of religion and the degeneration of society.¹¹ As McDougall put it with regards to the importance of eugenics in 1927, the “western civilization declines and decays”, while it soon remains “for some non-Christian people to carry on the torch of civilization” (McDougall 1927b, p. 304). Similar to the strategic manoeuvres of the 19th century publicists in science, McDougall had linked the pursuit of psychical research to the future welfare of the state and its people (cf. Turner 1993c; Gieryn 1999, pp. 37–64; Olson 2008, pp. 240–3).

While a sense of urgency and utility was communicated by linking psychical research to problems that were simultaneously social, ethical, and religious, there were still other important issues to address in the professionalising campaign. At a seminal 1926 conference at Clark University, McDougall read a paper on “Psychical Research as a University Study” (1927a). The speech contained further attempts to legitimise the presence of psychical research in a university setting, including polemical attacks on the established sciences and disciplines. He rebutted accusations that psychical research harbours irrationalism and a lack of critical sensibilities. To the contrary, he argued that psychical research, properly conducted, demands such amounts of critical thinking, reflection over presuppositions and limitations of

¹¹ Neither was his synthesis of Lamarckism, vitalism, religion and eugenics entirely idiosyncratic; as Bowler (2001, pp. 160–90) has shown, their convergence received much attention among scientists, philosophers, critics, and politicians in the early decades of the 20th century.

observation, etc., that it is especially well suited as a university discipline (McDougall 1927a, pp. 150–1).

He continued by discussing what the proper functions of a university should be, consequently showing how psychical research could fulfil all of these. The three primary functions of any university, according to McDougall, are providing education, exerting “a controlling influence in the formation of public opinion on all vital matters”, and extending the bounds of knowledge through research (*ibid.*, p. 152). The first function was eminently fulfilled through the thorough methodological training that McDougall envisaged for professional psychical research, and the second we have already seen exemplified through the role that it could have in forming qualified opinions on religion and ethics. In addition, McDougall felt that the universities had a responsibility to provide the public with qualified opinions on such popular topics as spiritualism, ghosts, and psychic phenomena. Even if the verdict on their genuineness would happen to be negative, the university’s opinion would only be legitimate if it had been established through carefully directed investigations (*ibid.*, p. 160).

The last function, concerning research, was a more sensitive subject. Even McDougall was forced to recognise that psychical research seemed completely barren if judged from the number of breakthroughs, novel predictions, or practical applications it had led to over its nigh 40 years of existence. Instead of focusing on results, McDougall directed his attack against the *epistemic foundations* of science, by returning to the problems associated with agnosticism and the core principles of naturalism.

McDougall opened a direct polemical diatribe against unremitting scientific sceptics with a defence of the familiar “absence of evidence is not evidence of absence”-type: even if results have not been forthcoming so far, there is nothing *a priori* that prevents a possible breakthrough in the future. He went on to claim that any opposition to psychical research must simply

arise from narrow dogmatic ignorance, that higher kind of ignorance which so often goes with a wealth of scientific knowledge, the ignorance which permits a man to lay down dogmatically the boundaries of our knowledge and to exclaim “*ignorabimus*.” This cry—“we shall not, cannot know!”—is apt to masquerade as scientific humility, while, in reality, it expresses an unscientific arrogance and philosophic incompetence. (*ibid.*, 154).

McDougall takes on the very principle of methodological agnosticism in the sciences, or, as he insists, that “higher kind of ignorance” which

tries to state authoritatively where the boundaries of possible knowledge go. But the kind of agnosticism that he attacks is *not* equal to that heralded by Huxley. It is rather the kind of agnosticism that withdraws “the supernatural” from the “natural”, and states dogmatically (or by recourse to the *a priori*) that the former is, by definition, unreachable, ineffable, transcendent. This is a crucial distinction, because it separates the question of what we *do* not know from what we *cannot* know.

Indeed, McDougall speaks with all the epistemic optimism of an empirical naturalist when he states that

To cry *ignorabimus* in face of the problems of Psychical Research, and to refuse on that ground to support or countenance its labour, is disingenuous camouflage; for the assertion that we shall not and cannot know the answers to these problems implies a knowledge which we certainly have not yet attained and which, if in principle is attainable, lies in the distant future when the methods of Psychical Research shall have been systematically developed and worked for all they may be worth. The history of Science is full of warnings against such dogmatic agnosticism, the agnosticism which does not concern itself with the frank and humble avowal that we do not know, but which presumes to assert that we cannot know. (*ibid.*, 154).

The gist of the argument is that most knowledge is empirical; even epistemology, or “knowledge about knowledge”, how it is, or whether it can be, obtained, is empirical to begin with.¹² Ironically, “dogmatic agnosticism” succumbs to a specific kind of supernaturalism in holding some types of (claimed) phenomena to be beyond the pale of empirical inquiry. In the picture that McDougall seeks to portray, psychical researchers are “more scientific” than that, holding that the question of whether or not positive knowledge about these phenomena can be obtained is itself an issue which only persistent and critical empirical inquiries can establish.

Towards an Autonomous Discipline

McDougall’s professionalising campaign succeeded in 1927, when he was offered the position as head of the newly established psychology department at Duke University. The appointment was largely due to his knitting together the discourses of psychical research, vitalism,

¹² For similar reflections on the basis of knowledge among contemporary naturalising philosophers, cf. Kornblith 1994; Flanagan 2006, pp. 430–1.

Lamarckism, eugenics and religion, pitted up against “mechanistic-materialism” and the dominant behaviourism in psychology. The young university in Durham, North Carolina, had a distinctly conservative outlook, and McDougall was head-hunted by its president William Preston Few much because of his emphatic opposition against materialistic and mechanistic philosophy generally, and American behaviourism specifically (Mauskopf & McVaugh 1980, pp. 133–4).¹³

In the position to develop policies and administer budgets, McDougall could authorise research projects that were dear to him. This led to the commencement of Lamarckian and parapsychological experiments, side by side in the new psychology department.¹⁴ It was at this point that McDougall embraced Louisa (1891–1983) and Joseph Banks Rhine (1895–1980), an ambitious botanist couple who, inspired by McDougall’s earlier pleas for the institutionalisation of psychical research, eagerly wanted to conduct such work in a university setting.¹⁵ Their cooperation with McDougall led to the foundation of the first autonomous research institute for parapsychology at an American university, marking the beginning of the discipline as we know it today. Psychical research was about to transform into modern professional parapsychology.

Claiming and Maintaining Legitimacy: The Contested Status of Experimental Parapsychology

While McDougall prepared the ground for the professionalisation of parapsychology, it was up to J. B. Rhine to give the new research programme its specific form and content. Occupying a disputed space on the borders of the scientific project Rhine and later parapsychologists have continuously needed to resort to a range of strategies for claiming and maintaining legitimacy for their project. I will list four different types of strategies.

¹³ For his role in the controversy over behaviourism, see e.g. McDougall & Watson 1929.

¹⁴ For McDougall’s Lamarckian experiments—which caused a temporary stir due to their apparent success—see McDougall 1927b; 1930; Rhine & McDougall 1933; McDougall 1938; cf. 1934b, pp. 209–10.

¹⁵ See McDougall’s (1934b) foreword to *Extra-Sensory Perception* (Rhine 1934) for some details about this history.

- 1) Most importantly, parapsychologists from Rhine onwards claim the scientific method, signified by an emphasis on *experimentalism*, the creation of *taxonomies*, and an increasing emphasis on *instrumentation*. In short, this strategy entails using the whole panoply of the “symbolic and technical hardware of science” (Collins and Pinch 1979, p. 242).
- 2) *Popular appeals* have continued to be important for parapsychology, through the publication of popular science books and pamphlets, the use of radio shows, and even marketed products.
- 3) Linking the discipline to political, religious and ethical issues has also continued in the post-Rhine era, even providing an important channel for financial support.
- 4) Lastly, in the face of constant professional criticism parapsychologists typically resort to a strategy which may be characterised as a philosophically fuelled antagonism to the “scientific establishment”, particularly in the wake of Thomas Kuhn’s (1962) work on paradigms and incommensurability in scientific revolutions.

In the present section I will discuss these four strategies, interspersed in a historical narrative of the development of modern parapsychology.

From Anecdote to Experiment: Claiming Scientific Legitimacy

Rhine’s work at Duke was part of a move away from anecdotal to experimental evidence in psychical research (e.g. Thouless 1972). Even though crude experiments had been performed at an early stage in the history of the SPR, the main strategy to gain evidential support had been to gather anecdotes, systematise them, and make theoretical speculations. This approach had been at the basis of both Gurney et al.’s *Phantasms of the Living* and Myers’ *Human Personality*.

Rhine’s project also signalled a move away from qualitative to quantitative methods. Telepathic ability had commonly been thought of as evenly distributed in the population, although possibly more developed in some than others. While amateur psychical researchers were typically interested in observing mediums (presumed “super-psychics”) performing tricks in darkened rooms, the university discipline imagined by McDougall and the Rhines needed to move investigations into proper laboratories, repeat experiments on a mass of subjects, and employ rigorous statistical analyses to the data produced.

Rhine was not the first to take these methodological steps. One important precursor was the extensive experimentation conducted by John Edgar Coover at Stanford between 1912 and 1917. Coover's systematic and rigorously designed tests of telepathy using playing cards have even been identified as the first consistent use of randomisation in addition to control and blinds in the history of scientific experimentation (Hacking 1988, pp. 445–9). Over the course of five years Coover conducted some 10,000 tests of telepathy which were analysed and published in a volume of more than 600 pages, fully equipped with tables and statistical calculations (Coover 1917). His conclusion was negative: a hypothesis of supernormal perception could not be substantiated.

Rhine's method, as expressed in his paradigmatic *Extra-Sensory Perception* (1934) also centred on variations of card-guessing. He had the psychologist of perception Karl Zener produce a set of five distinct symbols, which should be easy to recognise and memorise. The symbols (star, circle, cross, square, and waves) were printed in 25-card decks for use in the experiments, later known as "Zener cards". By deploying a specially designed standard deck of cards it would be easier to repeat experiments and calculate probabilities.

In addition to streamlining experimental procedures, Rhine was concerned with making distinctions between various types of extrasensory perception (ESP) and creating taxonomies. In his 1934 book he introduced a distinction between two main types: telepathy (ESP of mental conditions) and clairvoyance (ESP of physical objects) (Rhine 1934, p. 14). In addition to these "differentiated" types, Rhine's worked with a category of "undifferentiated ESP" for experiments where clairvoyance and telepathy could not be clearly distinguished from each other as explanatory mechanisms. The inventory of technical terminology and experimental procedures was expanded in the years that followed (see Mauskopf & McVaugh 1980, pp. 169–83; Beloff 1993, pp. 140–2). Rhine had already mentioned the possibility of a temporal dimension to ESP in *Extra-Sensory Perception* (1934, p. 14). Further development of that idea gave rise to the terms *precognition* (knowledge of the future) and *retrocognition* (knowledge of the past). Although Rhine would later acknowledge that no support of retrocognition had been forthcoming, precognition became one of his favourite effects (e.g. Rhine & Pratt 1957, pp. 13, 55–9, 69–70, 123). Experimentation also started on the more spectacular *physical* phenomena, re-invented as *psychokine-*

sis (PK): “the direct action of mind upon matter” (*ibid.*, p. 13). Since research had now ventured beyond perception as such, the general term *psi* was introduced, encompassing both ESP and PK phenomena. At this point, the basic nomenclature of modern parapsychology was in place.

In addition to introducing experimental methodologies, statistical figures, and differentiating taxonomies, parapsychologists have developed an increasing focus on instruments of measurement. Instrumentation is a particularly persuasive aspect of scientific activity because it seems to provide a way out of the subjectivity and fallibility of the human observer, producing “objective data” presumably unmediated by human agency (e.g. Galison 1997; Latour & Woolgar 1979). Instrumentation *translates* the confusing mishmash of nature to simple, ordered signs that can be read, tabulated and interpreted by the scientist. As Peter Galison writes, laboratory machines are

dense with meaning, not only laden with their direct functions, but also embodying strategies of demonstration, work relationships in the laboratory, and material and symbolic connections to the outside cultures in which these machines have roots (Galison 1997, p. 2).

The Zener cards may be seen as an early and crude form of instrumentation in parapsychology, and due to its visual simplicity it has remained one of the most efficient and persuasive ones. Technologically more advanced forms of instrumentation have later been developed. Rhine’s telekinetic test protocols relied on machines to roll dice. A more advanced form was introduced in 1961, by employing radioactive decay as a truly random system to be influenced in PK experiments (Beloff & Evans 1961). The aim would be to mentally slow down or increase the speed of the radioactive decay; in more contemporary research this system has been developed further, through computerisation, into “random number generators” (RNGs) which the test-subject tries to influence with psi (cf. Bösch, Steinkamp & Boller 2006, p. 500). Similarly, tests of ESP have moved from card-guessing trials to the more advanced “ganzfeld”-trials, incorporating a range of technological equipment, from white noise generators and cameras to video players and computers. These forms of instrumentation attest to the willingness of parapsychologists to adopt the symbolic and technical hardware of science, embodying the staunch experimentalism of the discipline.

Maintaining Legitimacy: Handling Criticism and Response

The results Rhine (1934) claimed to have obtained at first captivated both laymen and professional psychologists. A network of correspondents emerged, including both professionals and amateurs interested in setting up experiments and attempting replication (Mauskopf & McVaugh 1980, pp.183–90). Building on the interest, Rhine established the *Journal of Parapsychology* (*JP*) in 1937, aiming to create a peer-reviewed forum for additional scientific recognition. The first issue even featured what seemed to be an independent replication of some of Rhine's findings (*ibid.*, p. 187).

Certain responsibilities follow from seeking scientific recognition through a peer-reviewed journal. One of them is that, when it starts to publish reports of radical breakthroughs, colleagues will want to critically analyse the data, look for flaws, inconsistencies or experimental error, and seek alternative hypotheses. The establishment of *JP* in 1937 marks the beginning of a wave of critical responses to parapsychology, mostly coming from the discipline that it most sought to attach itself to: experimental psychology.

Several features of Rhine's published experiments made critics suspicious. R. H. Thouless, himself both a psychical researcher and a psychologist, criticised Rhine for being imprecise in describing the procedures that had been followed and the controls used in the series of experiments published in *ESP*, a criticism that was quickly followed up by other professionals (Mauskopf & McVaugh 1980, pp. 191–2, 256–72; cf. Thouless 1972, pp. 76–7). An even graver allegation was levelled by B. F. Skinner, the behaviourist, who had made the acute observation that both the original homemade Zener cards and the commercially produced decks were designed such that it was possible, under certain conditions, to see the symbol of a card from the back (Mauskopf & McVaugh 1980, pp. 260–3). This indicated a highly problematic source of error, especially when combined with the imprecise descriptions of how apparently successful experiments had been conducted. It would seem that sensory cues could not be properly discounted, throwing all the results into doubt.

Selection bias was brought forwards as another probable source of error for many of the findings. The mathematician and sceptic Martin Gardner (1952, pp. 302–8) suggested that the way Rhine selected his famous “high scorers” was a simple way of generating a seemingly positive, but entirely artificial result. Later there has been much concern

with Rhine's stated policy for the *JP* that "little can be learned from a report on an experiment that failed to find psi" (cited in Broughton 1987, p. 27). This policy suggests that the journal consistently avoided publishing negative results, an obvious problem for the sake of statistical meta-analyses.

In the early reception there was also much concern with the statistics used by Rhine and his companions (cf. Mauskopf & McVaugh 1979). One correspondent, R. R. Willoughby, pointed out that some of the "astronomical odds" Rhine conjured up from his data were in fact so astronomical as to warrant *ipso facto* suspicion; if they had been calculated correctly, ESP would even appear better established than the prediction that the sun will rise the next morning (Mauskopf & McVaugh 1980, p. 196).

In short, Rhine and his collaborators had a tough time maintaining their newly won professional recognition. To make matters worse, the Duke parapsychology laboratory lost its university funding in the mid 1930s, as McDougall stepped down. These disappointments made alternative strategies necessary in order to maintain the legitimacy of the field. The most significant one was a turn towards lay people (Allison 1979, pp. 283–8). Parapsychology was of ever growing popular interest, and Rhine turned out to be a deft publiciser and fundraiser. Media coverage of the unusual research at Duke peaked in 1937–8, when Rhine published his popularising *New Frontiers of the Mind*, appearing as a Book-of-the-Month-Club selection. The book was further marketed by a commercial radio show broadcasted by the Zenith Radio Corporation. For a year they ran weekly ESP—"tests", often featuring Rhine himself in the studio. Zener-cards were commercially produced and sold, appearing with J. B. Rhine's copyright (Mauskopf & McVaugh 1980, pp. 160–3, 256).

The massive media coverage brought parapsychology to everybody's lips. Incidentally, this made it easier to raise funds as well; over the years, contributions from various "rich uncles" (mostly requesting more research on post-mortem survival) piled up. Rhine's later independent research lab, the Foundation for Research on the Nature of Man, comfortably presided over two million dollars by 1968 (Allision 1979, p. 283). These channels of funding, unconventional and with strings attached, made parapsychology an even easier target for its critics. Indeed, parapsychologists have never had problems with a lack of funding; the problem has rather been the *source* of that money (Collins & Pinch 1979, pp. 254–5).

There are two other significant strategies that should be mentioned, the first of which is closely connected with the public appeal. As David Hess (1993, pp. 52–3, 96–8) has noted, Rhine was anxious to portray parapsychology as a mediator between religion and science, while simultaneously linking it up with notions of “American values”. In his 1953 popularisation of parapsychology, *The New World of the Mind*, Rhine forged links between parapsychology and “The American Way of Life”, pitting it up against the “un-American” ideologies of communism and totalitarianism (*ibid.*, pp. 96–8). Not only did Rhine argue that parapsychology privileges mind over matter, but this is furthermore presented as a “natural” and “scientific” argument for the philosophical position of voluntarism, and even the “correct” political view of American liberalism. Thus, at the height of McCarthyism, parapsychology was sold to laymen and would-be private financiers as a cure for America’s “spiritual ailments” and as a battle station against the impending dangers of materialism and communism.

The last significant strategy to maintain the legitimacy of parapsychology is somewhat more recent, and is linked up with intellectual developments in the history and philosophy of science. In particular, Thomas Kuhn’s *Structure of Scientific Revolutions* (1962) introduced the concepts of paradigms, revolutions and incommensurability into talk about competing views of science. These concepts, which went through a radicalisation when they were put to use by sociologists of science in the 1970s and 1980a (cf. Hacking 1999, Zummito 2002), were taken up by parapsychologists as well, disgruntled by their non-acceptance into mainstream scientific discourse. By the 1980s parapsychologists were claiming that an epistemic revolution was needed to replace the current “paradigm”, urging that parapsychology should be the pioneer discipline bringing about such a transformation (Hess 1993, pp. 79–81). This analysis even gained some support by sociologists of science; Collins & Pinch (1982), for instance, argued that parapsychologists and sceptics could not reach agreement because of a very real “ontological incommensurability”. Despite claims to neutrality, this account is effectively a strategy which empowers parapsychology and undermines “scientific orthodoxy”; in short, it comes very close to the parapsychologists’ emic understanding of their conflict with the “establishment” (cf. Nickles 1984; Northcote 2007, pp. 127–31).¹⁶

¹⁶ Cf. the concluding discussion of this chapter.

New Generations, Old Issues: The Status (Quo) of Parapsychological Research

The history of parapsychology after Rhine's initial attempts at Duke largely continued in the same vein. Claims of new and promising results are followed by critical appraisals that typically expose lacking experimental controls, bogus statistics, or even fraud (e.g. Markwick 1978). Russell Targ and Hal Puthoff commenced their much-discussed "remote viewing" experiments at the Stanford Research Institute in the 1970s, a re-invention of clairvoyance which caught much public attention (Targ & Puthoff 1977). Meanwhile, the American mentalist Kreskin and the spoon-bending Israeli Uri Geller boosted interest in paranormal topics, filling a similar role for post-war parapsychologists as mediums had done to earlier generations. With the massive publicity of "paranormal" topics, there was also a marked increase in organised sceptical responses. The Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) was established in Boston in 1976.¹⁷ It attracted many professional psychologists, and its associated publishing house, Prometheus Books, has been responsible for several important critical appraisals of parapsychology written by professionals (e.g. Hansel 1980; Marks & Kammann 1980; Kurtz, ed., 1985; Hyman 1989; Blackmore 1996).

Despite much professional resistance, parapsychology went through another phase of international expansion in the post-war era. Research carried out in Japan, India, South-America, South Africa, and various European countries largely followed Rhine's experimentalist programme without adding much new (Beloff 1993, p. 159). There are nevertheless two exceptions that are worth mentioning, since they reveal something of the contingency of the interpretations, agendas, and significances found in parapsychology. While Rhine and the wider Anglo-American model casts the discipline as a battle station against materialism, reductionism, atheism and other perceived spiritual and moral dangers, it is significant to note that this conception differs when we move to officially atheist countries such as the Soviet Union and the People's Republic of China. What little existed of psychical research in Russia at the time of the revolution was at first banned by the Stalinist regime. In the context of the Cold War it re-emerged when (spurious!) rumours reached the Kremlin that the Americans had been using

¹⁷ Asbjørn Dyrendal's article elsewhere in this volume provides a closer analysis of the conceptions and strategies of the modern sceptics' movement.

telepathy to direct their first atomic submarine, Nautilus, safely across the icy waters of the North Pole in 1959. A laboratory was opened in Leningrad; significantly, however, the Soviet researchers rejected the Western term “parapsychology”, choosing to name their discipline “psychotronics” instead (Vasiliev 1976 [1962]; Ostrander & Schroeder 1970). This was supposed to reflect that the alleged phenomena were extensions of *physical* science, rather than anomalies to be counted against materialism. Similarly, parapsychological research blossomed in China shortly after the Cultural Revolution. Here, too, researchers rejected the idea that their phenomena were “paranormal”, choosing to talk about “exceptional human body functions” (EHBF) instead (Zha & McConnell 1991; cf. Beloff 1993, pp. 155–61). The contention that psi phenomena would be connected with spooky activities of “consciousness” seems in the end a “Western” bias, arguably an entirely arbitrary one (e.g. Blackmore 2001).

The main controversies in post-war parapsychology have remained the issue of replication, the design of experiments, and the use of statistics. The psychologists David Marks and Richard Kammann attempted to replicate the apparently successful remote viewing experiments of Targ and Puthoff (1977; Marks & Kammann 1980). They did not succeed; instead they were able to localise flaws in the design of the original experiments, which seemed to explain the discrepancy in results (Marks & Kammann 1980, pp. 26–41). Nevertheless, remote viewing experiments became the subject of what is probably the largest public investment in parapsychology of all time, and indeed the closest the discipline ever got to “Big Science”. Starting in 1972, laboratories at the Stanford Research Institute (SRI) and the Science Applications International Corporation (SAIC) conducted research on remote viewing for the US military, in what has been known as the “Star Gate” programme. As late as 1995 the CIA was asked to evaluate the research that had been carried out with government funding for two decades. The report concluded that replication was still lacking, and pointed out that the research had not yet amounted to any practical applications for intelligence operations (Mumford, Rose, & Goslin 1995). Star Gate was disbanded that same year, much to the dismay of its coordinator, who suspected political rather than scientific reasons behind the decision (e.g. May 1996, pp. 21–2).

The most promising case for the parapsychologists in recent history has been the so-called “ganzfeld” experiments. Developed in the 1970s, the ganzfeld is a technique to test psi that relies on total

sensory deprivation under rigidly controlled circumstances (Honorton & Harper 1974). The "recipient" is put in a soundproof room, with white noise on headphones, halves of ping-pong balls covering the eyes, and flooded in red light. Sensory deprivation is good for two things: it serves as an extra safe-guard against sensory leakage, while at the same time producing what is supposed by most parapsychologists to be a "psi-conducive state". While the receiver is so seated, the sender is in another soundproof room, presented with a target to be "sent" through psi. The targets used are typically pictures or short video clips, which, ideally, are picked out from a pool of packets by some random process. The receiver has been instructed to continually report what she is experiencing of visual imagery or hallucinations while in the ganzfeld, and is later presented with a packet of pictures or video clips. At this point she is told to pick out the one that most resembles any experiences during the deprivation; this forms the basis for determining hits and misses.

There has been much controversy over the results generated from ganzfeld experiments. Psychologist Ray Hyman published a critical appraisal of 49 such experiments in 1985, finding statistically significant results, but also significantly inadequate randomisation in the design (Hyman 1985). A highlight in the debate between parapsychologists and their critics resulted, when Hyman and the parapsychologist Charles Honorton co-authored "A Joint Communiqué" on the ganzfeld controversy, agreeing on a proper protocol that should be adopted for further studies to count as valid (Hyman & Honorton 1986). The outcome was the "autoganzfeld", a variety of the old experiments employing more rigid randomisation and blinding by using computers for the selection and presentation of targets.

Honorton went on to use this protocol in new experiments, and caused a temporary sensation when he published a mildly positive meta-analysis in the mainstream journal *Psychological Bulletin*, apparently replicating the results of earlier ganzfeld experiments (Bem & Honorton 1994). Sceptics gave the optimists no rest, however; Honorton's article was followed by a commentary by Hyman (1994), suggesting that the results were still due to artefacts. A new meta-analysis a few years later found that the results had not been statistically significant in the first place (Milton & Wiseman 1999).

In stark contrast, the prolific parapsychologist Dean Radin (1997, p. 88) wrote in his enthusiastic popular introduction to the field that the positive results of ganzfeld research were "unlikely with odds against

chance beyond a million billion to one”, echoing Rhine’s fantastic statistical figures. The dispute has rolled since, and there seems to be no overall agreement between the opposing camps (e.g. Bierman 1999; Parker 2000; Storm & Ertel 2001; Blackmore 2001; Bösch, Steinkamp & Boller 2006; Radin et al. 2006). With researchers still debating over whether or not the effect of psi is even traceable through statistical meta-analyses, the mathematical statistician Frederick Mosteller’s (1991, p. 369) judgment remains apt: if there is something like ESP, it does not look like it will replace the telephone very soon.

Paranormal Re-Enchantment: Parapsychology and Contemporary Religion

Whereas professional parapsychology has had little or no substantial influence on institutionalised scientific disciplines, it has made a deeper impact in other segments of modern culture. Through its popularising strategy parapsychology has helped facilitating a distinctly late modern discourse on certain types of “unchurched religion”. Through continuing quarrels with scientists and sceptics, in popular media rather than scientific forums, parapsychologists have been integral to forging the discursive formation which Hess (1993) has termed the “paraculture”. By extension, I submit that parapsychology plays a central part in the mode of (pop-) cultural re-enchantment which Christopher Partridge (2004/5) recently called “occulture”. Parapsychology has been an important supplier of ideas, concepts, arguments, themes, and, perhaps ironically, “scientific” legitimacy for a variety of emergent forms of religion. In this last section we shall look briefly at the connections and the significance of parapsychology to the contemporary religious landscape.

Occulture, Paraculture, and Re-Enchantment

Partridge recently introduced the term “occulture” to describe a mode of re-enchantment which emerges from the backdrop of a general structural secularisation of Western societies. Expanding Colin Campbell’s (1972) influential concept of the cultic milieu, occulture signifies a “reservoir of ideas, beliefs, practices, and symbols” (Partridge 2004, p. 84), but also includes the sites and channels through which these are mediated, disseminated, and consumed, from Hollywood movies, pop-music, and graphic novels, to festivals, fairs, and fringe magazines. A distinctive feature of Partridge’s claim is that occulture is not merely a “subculture” or a marginal “milieu”, but an emerging, significant culture

in its own right. When it comes to content, the occulture comprises “those often *hidden, rejected* and *oppositional* beliefs and practices associated with esotericism, theosophy, mysticism, New Age, [and] Paganism”, furthermore listing so diverse currents, themes and topics as “extreme right-wing religio-politics, radical environmentalism and deep ecology”, along with belief in angels, spirit guides, channelling, astral projection, human potential spiritualities, astrology, healing, earth mysteries, tarot, alternative science, esoteric Christianity, UFOs, alien abduction, etc. (*ibid.*, pp. 68, 70; *italics original*).

A decade earlier Hess (1993) argued that there exists a discourse on the paranormal—a “paraculture”—which is largely shared and co-created by the opposing views of New Agers, parapsychologists, and sceptics. The paraculture may be seen as a discursive formation created by the mutual constructions and projections of “noble Selves” and “demonic Others” during polemical clashes between opposing positions on the paranormal (*ibid.*, pp. 43–69). The argument was recently taken up and expanded by sociologist Jeremy Northcote, who sees the participants in the “paranormal debate” as divided into a variety of ideational positions (2007, pp. 55–82). These positions are divided over belief and disbelief in paranormal phenomena, but also over claims to rationality and the degree to which they seek scientific legitimacy. Both Hess and Northcote suggest that participants in clashes over the paranormal get socialised into certain patterns of strategic positioning, and certain modes of rhetoric (e.g. Hess 1993, pp. 43–69; Northcote 2007, pp. 120–85). Thus, for instance, both New Agers and parapsychologists will tend to portray themselves as revolutionary, utopian underdogs vis-à-vis a repressive scientific orthodoxy, while attempting in various degrees to use the paranormal as a mode of scientific re-enchantment (e.g. Hess 1993, pp. 70–85). Sceptics, on their part, see only the growth of irrationalism, and may indeed feel that it is *scientific* values that are really becoming marginalised in (post-) modern society (*ibid.*, pp. 87–9; cf. Hammer 2007).¹⁸

I suggest that the paraculture is integral to the wider occultural re-enchantment posited by Partridge. The dynamics of parapsychology in its public aspect, including religious appropriations and sceptical attacks, has been a generator of premises that find their way into occultural currents. It has provided a form of popular “*doxa*”, a set

¹⁸ Cf. Dyrendal, this volume.

of cultural assumptions regarding “the paranormal” that are widely distributed in society (cf. Hess 1993, pp. 14, 92; Northcote 2007, pp. 140–5). Although this is hardly the place to examine all the manifestations of parapsychological aspects in the occulture, I will outline some important historical and thematic connections in the concluding section below.

Conclusion: Diffusions of ESP

The role of telepathy, clairvoyance and psychokinesis in various forms of “New Age science” is among the more evident ways that paraculture has influenced contemporary occulture. The “New Age” is a notoriously promiscuous concept, but in most definitions and genealogies there is room for psychical research and parapsychology, even though it is typically understated. Wouter Hanegraaff (1996; 2007) has argued that, historically, the roots of New Age thought is found in a secularisation of esotericism which occurred after the Enlightenment. Steven Sutcliffe (2007, p. 54) recently traced the origins of New Age ideas to the concretisation of “a distinctive discourse” in the period between the wars; a formation where theosophical, spiritualist, mystical and occult currents came together in a certain way. On both these readings, psychical research should be regarded as important. Through its struggle to redefine the supernatural, by conscripting and naturalising spiritualism, psychical research was a motor for the secularisation of esotericism in Hanegraaff’s sense. The centrality and popularity of psychical research in the 1920s and 1930s was demonstrated in this article, and it seems that the discourse on vitalism and psychic phenomena in the context of the SPR and the professionalisation of psychical research in the period is an important component which, if taken into account, would sustain Sutcliff’s argument.

Thematically, we find parapsychological discourse to have been highly influential in the New Age’s “sacralisation of psychology”, and its emphasis on “holistic science”. Intellectual currents such as transpersonal psychology and the Human Potential Movement are often mentioned in connection with New Age; increasingly, the use and importance of psychedelics has come into focus as well (e.g. Hammer 2001, pp. 70–8; Hammer 2005; Partridge 2005, pp. 82–134). In this connection, mention should be made of the Esalen Institute, established in 1962 in Big Sur, California. Associated with names such as

Aldous Huxley, Stanislav Grof, Terence McKenna, Carlos Castaneda and Fritjof Capra, Esalen was central to all the above-mentioned developments, and had fundamental influence on the formation of the New Age movement *sensu lato* (see Kripal 2007; Hanegraaff 1996, pp. 94–111). Parapsychology has figured prominently in the history of Esalen as well. A seminar series running in the early years from 1962 to 1964 was dedicated to “exploring recent developments in psychology, psychical research and work with the ‘mind-opening’ drugs”, and again in the mid 1980s the institute hosted several five-day conferences on parapsychology (Kripal 2007, pp. 98–108, 340–3).

Esalen played a major role in bringing about New Age “holistic science”, a branch of modern re-enchantment where parapsychological ideas figure prominently. Lawrence LeShan’s *The Medium, the Mystic, and the Physicist*, published on Esalen’s Viking Press in 1966, was an early book in the genre. Its basic argument stated that ESP had been well-established by parapsychology (invoking scientific legitimacy), that clairvoyant abilities existed, and that this pointed us towards a new worldview. He proceeded to compare quotations from “mystics” and leading physicists, indicating that parapsychology, mysticism and physics were converging. This parallelism, of course, was popularised about a decade later, with Capra’s commercially successful *Tao of Physics* (1975), a classic of New Age science.

Furthermore, the utopian call for a new, non-reductionist, non-materialist paradigm that is so central to New Age science was prefigured in the earlier discourse of psychical researchers and parapsychologists. J. B. Rhine took on “materialistic science” and carefully presented parapsychology as a discipline that could reconcile science with religion, in a fashion similar to the later New Agers (e.g. Rhine 1937). As we have seen, parapsychologists also took up Kuhn’s concepts of paradigms, revolutions and incommensurability, arguing that their discipline would only be accepted after a grand revolution where mechanism and materialism were finally thrown out. Often this brought the parapsychologists’ rhetoric problematically close to that of the New Agers, associating the coming “paradigm shift” with the advent of a social, spiritual and ethical utopia as well (e.g. Hess 1993, pp. 79–81).

Granted these discursive similarities it is hardly surprising that parapsychology has remained an interest to New Age discourses of science. Rupert Sheldrake, for example, made his name in New Age circles with his neo-vitalist theory of “morphic resonance” (1987), but has

since gravitated towards parapsychology and has written several books on psychic powers and related phenomena (e.g. 1999, 2003).

Finally, a central feature of occultual re-enchantment is the importance of popular culture. The consumption of popular (oc)cultural products, as agents of re-enchantment, is paramount to the diffusion of emerging occultual religiosity. Again we find the paraculture baked into the process. Parapsychological concepts are frequently mediated through popular culture; a complete list of Hollywood movies figuring some kind of ESP would be extensive indeed.¹⁹ The omnipresence of parapsychological motifs in popular culture is, furthermore, symmetrical with statistical findings indicating that 60% of the American population believes in ESP.²⁰ Data such as these strongly suggest that parapsychology and paraculture are shaping the re-enchantment process which currently sweeps the late modern West.

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¹⁹ Partridge (e.g. 2004, pp. 119–40; 2005, pp. 165–206) includes an extensive treatment of paranormal and occult topics in film, focusing specifically on "supernatural horror" (particularly vampire movies), and films and shows that sacralise (or demonise) extraterrestrials (from *2001* and *Close Encounters of the Third Kind* to *The X-Files*). Similarly, Hess discusses the place of paraculture in Hollywood by looking at popular movie franchises such as *The Exorcist*, *Poltergeist*, *Anetville Horror*, and the *Ghostbusters* series (Hess 1993, pp. 120–41). A closer study of psi in popular culture seems a promising way to bring the analytical concepts of paraculture and occulture together.

²⁰ This figure appears in the National Science Foundation's report on scientific literacy (April 2002), quoted in Shermer 2002, p. 35. A Gallup poll from 2001, however, found that 50% of the American population believed in ESP, with another 20% expressing uncertainty on the issue. According to the same poll, 42% believed in haunted houses, 32% in pre- and retrocognition, while 28% believed in the possibility of communicating with deceased persons (Newport & Strausberg 2001).

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