11

Patañjali Yoga and Siddhis: Their Relevance to Parapsychological Theory and Research

WILLIAM G. BRAUD

[There is a] well-known law of Nature according to which meditation or deep pondering over any idea or principle tends to bring down the corresponding force gradually into our life.... the whole science of acquiring *Siddhis* or occult powers as expounded in ... the *Yoga-Sûtras* is based on this axiomatic truth of Yogic philosophy.... The word used is *Samâpattibhyâm* which means 'fusing the mind with.' This is really what happens when we ponder deeply or meditate on an idea and open up a channel for the influx of its corresponding power.

I. K. Taimni (The Science of Yoga, 1975, p. 256)

This chapter treats the Patañjali *Yoga-Sûtras* and their relevance to contemporary theory and research in parapsychology. A constant feature of this chapter is its description of ways in which Indian psychophysical practises and principles, as illustrated in the Patañjali *Yoga-Sûtras*, both inform and are supported by psi (parapsychological) research and theory. Like the *Yoga-Sûtras* themselves, the chapter has four major sections. These sections will address the context, principles, and practises of the *Yoga-Sûtras*; the nature, methods, and findings of current parapsychological research; the interrelationships of the *Yoga-Sûtras*, the *siddhis*, and psi research; and additional and alternative considerations of Yoga principles and practises.

I. Patañjali Yoga-sûtras: Principles and Practises

The Patañjali *Yoga-Sûtras* is the basic text of Yoga, one of the six great orthodox schools or systems (*darœuna*, views) of Indian philosophy/psychology. These six systems of thought – grouped as three pairs that share metaphysical similarities – are Vaiúeșika and Nyâya, Sâmkhya and Yoga, and Mîmâmsâ and Vedânta. The "founders" of these six systems are considered to be, respectively, Kaṇadâ and Gotama, Kapila and Patañjali, and Jaimini and Vyâsa. The six systems can be characterized by their major emphases: particularity, distinctions, metaphysics, ontology, cosmology, and the atomic nature of reality for Vaiúeșika; logic and epistemology for

Nyâya; exegesis of the dualism of nature (*prakṛti*, matter and mind) and spirit (*puruṣa*, pure consciousness) for Sâmkhya; control of physical and mental processes through disciplined practise, with the ultimate aim of isolation, independence, or liberation (*kaivalya*) from the motions and changes of matter and mind for Yoga; testimony and proof, establishing the authority of the *Vedas* and interpreting them, especially their ritual, liturgical aspects, for Mîmâmsâ; and the philosophy of pure consciousness and non-dualism for Vedânta.

Patañjali and Yoga-Sûtras

The composition date for the Patañjali *Yoga-Sûtras* is uncertain. Some place it as early as the second or third century BCE, a period during which the aphoristic style was especially prevalent. Some have identified the author of the *Yoga-Sûtras* with the grammarian Patañjali who wrote, in the first or second century BCE, a commentary (the *Mahâbhashya* or *Great Commentary*) on Pâṇini's grammar. Others dispute these early dates, arguing – on the basis of stylistic and content considerations, particularly of the fourth section of the *sûtras* – that at least portions of the *sûtras* seem more appropriate to the fourth or fifth century CE It has even been suggested that Patañjali was a contemporary of Tirumular, author of the *Tirumantiram* (sometime between the first and seventh century CE), and that Tirumular and Patañjali had a common guru, Nandi (Govindan, 2001).

In the *Yoga-Sûtras*, Patañjali was a codifier and formalizer of pre-existing principles and practises. The term *yoga* had already appeared in early sacred writings of India (e.g., in the *Taittirîya* and *Kaṭha Upaniṣads*), and the practises mentioned in his *Yoga-Sûtras* no doubt had been taught and conveyed orally to a long line of spiritual aspirants.

The term *yoga* suggests *uniting*, *joining*, *bonding*, *binding*, *linking*, *harnessing*, *yoking together*; this conveys one of the two important aims of Yoga: the union of the conditioned and limited self with the true Self, of the individual soul with the Supreme Soul, the identification with *puruşa* (pure consciousness). Curiously, the term *yoga* also suggests the contrary meaning of *separating* (Feuerstein, 1974, p. 69). For example, the commentator Bhoja described Patañjali's yoga as "an effort to separate the Âtman (the reality) from the non-Âtman (the apparent)" (cited in Prabhavananda and Isherwood, 1969, p. 11), and Bhoja also wrote, "Yoga is separation" (cited in Feuerstein, 1974, p. 69). Eliade (1975) pointed out that the union that is the aim of Yoga presupposes a prior "severance of the bonds that join the spirit and the world ... [and] ... detachment from the material, emancipation with respect to the world" (p. 10). These dual meanings of *yoga* as both *union* and *separation* very closely resemble the dual meanings of the English word *cleave*, with meanings of both *clinging*, *sticking*, *firmly adhering* and *splitting*. The double meanings of yoga are evident in the bivalent aim of Yoga: to achieve separation, independence, isolation, liberation (from the conditioned, from *prakrti*) in order to achieve oneness, union (with the unconditioned, with *puruşa*).

The term *sûtras* literally means *threads* but has been generalized to refer to *terse statements* or *aphorisms*; *sûtras* can also be taken to mean *rules*, *principles*, or *formulae*. Patañjali's preparation of his treatise in the form of collections of interrelated aphorisms is a carry-over from the ancient Indian practise of oral transmission of knowledge directly from person to person (usually, from teacher to student). Brief, pithy statements allowed the material to be more easily remembered, and it also provided a mere skeletal outline, the details of which would have to be filled in by the teacher. The latter allowed more selective control of what was

taught, when, and to whom, safeguarding the information from possible misunderstandings or misuse.

The filling out and interpretation of the *Sûtras* took the form of *commentaries*. In the case of the *Yoga-Sûtras*, important early commentaries were the *Yogabhâsya* of Vyâsa (sixth and seventh centuries), the *Tattvavaisaradi* of Vâcaspati Miora (ninth century), the *Rajamartanda* of King Bhoja (eleventh century), the *Yogavarttika* of Vijñâna Bhikşu (sixteenth century), and the *Maniprabhâ* of Sarasvati Ramananda (sixteenth century) (see Eliade, 1975). Modern English translations of the *Yoga-Sûtras*, along with selected commentaries, can be found in Rama Prasada (1910/2003), Woods (1927), Mishra (1963), Prabhavananda and Isherwood (1969), Taimni (1975), Vivekananda (1982), Brown (1999), and Govindan (2001).

The Patañjali *Yoga-Sûtras* is a collection of 196 interrelated *Sûtras* or aphorisms, organized into four chapters or books (*pada*). The first chapter (*samâdhi pada*) consists of 51 *Sûtras* that deal in a general way with special forms of attention and consciousness that are the goals of yoga. The second chapter (*sâdhana padâ*) consists of 55 *Sûtras* that describe the most important practises of this spiritual discipline. The 56 *Sûtras* of the third chapter (*vibhûti padâ*) describe the extraordinary powers or attainments (*siddhis*) that can result from intense yogic practise. The fourth and final chapter (*kaivalya padâ*), which some believe to be a later addition to the earlier three chapters, consists of 34 *Sûtras* and describes the independence and emancipation that can be the fruit of diligent yogic practise.

The Yoga-Sûtras treatise has been highly praised:

The four books of Patañjali's *Yoga-Sûtras*, together with their ancient commentary (the *Yogabhasya*, which is attributed to Vyâsa, the legendary poet-sage of the *Mahabharata*), must be reckoned among the most astounding works of philosophical prose in the literature of the world. They are remarkable not only for the subject matter, but also, and particularly, for their wonderful sobriety, clarity, succinctness, and elasticity of expression.

(Zimmer, 1989, p. 283)

Nakamura (1971) has identified several characteristics of Indian thought: stress on universals, preference for the negative, minimizing individuality and specific particulars, a concept of the unity of all things, the static quality of universality, subjective comprehension of personality, primacy of the universal Self over the individual self, subservience to universals, alienation from the objective natural world, its introspective character, its metaphysical character, and its spirit of tolerance and conciliation. It is possible to detect many of these tendencies in the Patañjali *Yoga-Sûtras*.

Yoga's Aims and Practises

Yoga builds upon the metaphysical foundation of the ancient Sâmkhya system, but whereas Sâmkhya is intellectual and theoretical, Yoga is experiential and practical. As mentioned earlier, the goal of Yoga is bivalent - to achieve emancipation from conditioned matter and mind (*prakrti*) and to achieve oneness or union with unconditioned, pure consciousness (*purusa*). This bivalent aspect is also operative, more mundanely, in the practise of ordering and unifying the usually dispersed and undisciplined activities of the mind in order to eventually transcend even this more organized and controlled mental condition.

The Yoga-Sûtras provide step-by-step instructions for ceasing to identify with the fluctuations or modifications (thought waves, whirlpools) of the mind (*citta-vṛtti*) and for ultimately achieving

220

complete independence and isolation from matter/mind and liberation as pure consciousness. In the course of this spiritual discipline of constant practise (*tapas*) and detachment (*vairâgya*), one encounters various obstacles or hindrances ($k l e \alpha a$, afflictions) that disturb the equilibrium of the mind: ignorance (avidyâ), egoism (asmitâ), attachment (râga), aversion (dvesa), and clinging to life (abhiniveau). These five hindrances are the chief causes of confusion and suffering in life. Patañjali identified eight practises that help one overcome the hindrances, increase discriminative discernment, and move forward in one's psychospiritual development. These are the eight limbs (*astânga*) of yoga praxis: abstentions or restraints (*yama*), observances or disciplines (niyama), posture (*âsana*), control of breath/prâna (prânâyâma), withdrawing sensory activity from control by external objects (pratyahâra), concentration (dhâranâ), meditation (*dhyâna*), and absorption (*samâdhi*). By engaging in these practises diligently and intensively, the yogi can acquire progressively greater control of body, senses, emotions, and thoughts: recognize and discriminate these limited and limiting disturbances (the seen) from one's true Self (the Seer); become capable of direct supersensory knowing; and ultimately become fully Self-realized in attaining liberation (kaivalya). At certain stages of the yogi's progressive development, various attainments or accomplishments (siddhis, powers) emerge. These *siddhis*, the practises with which they are associated, and their relevance to parapsychology are treated below, in Section III of this chapter. First, however, it is necessary to provide a brief overview of the subject matter, methods, and findings of parapsychology.

II. Paranormal Functioning and Psi Research

Even today the scientific mind, by definition, must be skeptical and perhaps exhaust its powers in justified "No" to this and that. Only the mystic knows something to which he can say "Yes!"

 Raymond Blakney ("Introduction" to Meister Eckhart: A Modern Translation, 1941, p. xxv)

Any sufficiently *advanced* technology is indistinguishable from magic.

– Arthur C. Clark (Profiles of the Future, 1962)

The Discipline of Psi Inquiry

For this chapter, *psi inquiry* is used as the most general name for the scholarly approach to the study of paranormal or psychic experiences and phenomena. Other names for the discipline devoted to the formal and systematic study of paranormal functioning include *psychical research*, *parapsychology*, and *psi research*. The subject matter of this discipline usually is designated by the general term psi - a relatively neutral technical term that suggests psychic functioning. Psi is used to describe instances in which information or knowledge is directly acquired, or influences are directly exerted, through means other than the conventionally-recognized senses, rational inference, and motor systems. Such unorthodox, anomalous, or exceptional knowing or action can involve events that are either distant (in space and/or in time) or remote (conventionally inaccessible).

Although psychic experiences have been reported throughout history and within virtually all cultures, to many modern psychologists the very existence of psi remains controversial, and psi usually remains outside the domain of conventional psychology. However, careful studies of psi have been undertaken for at least 120 years by scientists and scholars in professional psychical societies and organizations, institutes, and university departments in many countries. In addition, there has always been widespread interest in psi phenomena in the general public, and there has been special interest in these phenomena within the world's major religious, spiritual, mystical, and wisdom traditions, as well as within certain philosophical systems and schools of esoteric thought.

Varieties of Psi Experiences and Phenomena

Psi inquiry addresses three major types of paranormal experiences and phenomena. The first type is *receptive psi* or *direct knowing*, in which one acquires accurate knowledge or information about events or experiences beyond the reach of the conventional senses. This form of psi has been described as *extrasensory perception (ESP)*, *psi cognition*, or *anomalous cognition*. Receptive psi can manifest itself as *telepathy* (paranormal knowledge of the mental content or experiences of others, often at a distance; a kind of direct mind-to-mind communication), *clairvoyance* (paranormal knowledge of some objective events, objects, or occurrences, often at a distance; a kind of mind-to-object interaction), *precognition* (paranormal knowledge of future events; a kind of foreknowledge or future-telling beyond what is possible through rational inference), and *retrocognition* (direct, paranormal knowledge of events in the past, especially of events that one might not have personally encountered, and which, therefore, are beyond the range of personal memory). Recently, the terms *remote viewing* and *remote perception* have been used to describe cases of clairvoyance, and *premonition* and *presentiment* sometimes are used to describe cases of precognition.

The second form of psi can be described as *active psi* or *direct mental influence*, but the most commonly-used terms are *telekinesis* (movement at a distance) and *psychokinesis* (*PK*; mind-induced movement or mind-over-matter). Recently, the term *anomalous perturbation* has been used to describe these instances in which physical events apparently are influenced – directly and often at a distance – without the use of conventional muscular or motor systems or by their extensions or tools. Psychokinetic influences may manifest as gross movements or any other changes in remotely or distantly situated objects or living systems or as more subtle changes (especially in large numbers of randomly varying events) that may not be immediately obvious to the naked eye but can be revealed through statistical analysis.

The third form of psi can be described as *survival* (of bodily death) or *afterlife evidence*. This refers to various kinds of experiences or occurrences that suggest that some form of personality, individuality, or consciousness might survive the death of the physical body. Phenomena and experiences suggestive of postmortem survival include apparitions, hauntings, poltergeist occurrences, mediumistic communications, physical mediumship phenomena, some out-of-body experiences, near-death experiences, and past-life recall and reincarnation memories.

Research and Inquiry Methods

Scientific and scholarly inquiries into psi experiences and phenomena can be carried out using four major approaches: case studies, field investigations, experimental/laboratory studies, and experiential explorations. *Case studies* involve the careful documentation and study of spontaneously-occurring instances of psi, with emphases on the nature of the psi experience or event, its surrounding circumstances and outcomes, the testimonies of possible witnesses, and

other supporting evidence. An exemplary case study collection is the monumental two-volume work, *Phantasms of the Living*, published by Gurney, Myers, and Podmore in 1886, and later abridged and expanded with additional cases, respectively, by Sidgwick in 1918 and 1923 (Gurney, Myers, and Podmore, 1886/1970; Sidgwick 1918/1975, 1923/1975). These four investigators were leaders in the professional Society for Psychical Research, founded in London in 1882 for the express purpose of carefully evaluating various claims involving paranormal phenomena. Other noteworthy spontaneous case collections and analyses include L. E. Rhine's study of patterns of psi in everyday life (L. E. Rhine, 1953, 1962a, 1962b); Sannwald's (1963) analysis of 1,000 verified reports; Schouten's (1979, 1981, 1982) quantitative and comparative analyses; Stevenson's (1970) study of spontaneous telepathic impressions; Crookall's (1961) and Green's (1968) compilations of spontaneously occurring out-of-body experiences; Osis's (1961; Osis and Haraldsson, 1977) surveys of deathbed observations of physicians and nurses; reports of Kubler-Ross (1969, 1975), Moody (1975), Sabom (1982), Ring (1980), and Krishnan (1985) on near-death experiences; and Stevenson's (1974, 1975), Pasricha's (1990), and Akolkar's (1992) studies of cases – chiefly in India – suggestive of reincarnation.

Whereas case studies deal with experiences that usually occur non-recurrently and sporadically, *field investigations* are possible if paranormal phenomena tend to recur for particular individuals or at particular locations. Researchers can visit such persons or locations and conduct investigations that are more thorough, and possibly more convincing, than those that more limited case studies allow. Field investigations are common in studies of *hauntings* (in which possibly paranormal sights and sounds recur at particular places) and *poltergeist* outbreaks (possibly paranormal disturbances usually involving recurrent movements and breakages of objects; often, such outbreaks are associated with particular persons), as well as of locations – such as the Catholic shrine at Lourdes, France – at which unconventional *healings* are purported to take place (see Houran and Lange, 2001; Leuret and Bon, 1957; West, 1957). In addition, field studies of the efficacy of purported psychic or spiritual *healers* are possible (see Krippner and Achterberg, 2000). Field studies are also possible in therapeutic contexts in which paranormal content might emerge in connection with dreams or with close interactions with clients (Ehrenwald, 1977; Eisenbud, 1970; Ullman, 1959, 1975).

In *experimental/laboratory studies*, psi is studied under well-controlled conditions. Researchers take precautions to rule out conventional factors (confounds, artifacts) that could account for the results. Possibilities of conventional sensory knowledge, subtle intentional or unintentional cues, rational inference, chance coincidences, and fraud on the part of the research participants or of the investigator must be eliminated. If positive results are obtained under these strict and carefully-arranged conditions, and if the experiment had been thoughtfully designed and the experimental protocol had not been violated, it may be concluded with some confidence that psi actually occurred under these conditions.

In a fourth possible approach to psi inquiry, investigators may study their own paranormal experiences. This might be called an *experiential approach* – one that involves careful introspection and reflections on one's own experiences, their circumstances and possible triggers, their accompaniments and outcomes, and their interpretations and meanings for the experiencer. Such an approach has been most strongly advocated by White (1997, 1998), especially in connection with what she described as *exceptional human experiences*. This first-person approach to psi inquiry has been explored only rarely (see, for example, Braud, 1994; Garrett,

1949; Heywood, 1964; Swann, 1975, 1993); however, it is an approach that is closely aligned with the aims and practises of Yoga.

Each of these four psi inquiry approaches has its advantages and disadvantages. The case studies approach involves experiences that are rich in meaning and life-relevance, and that sometimes serve important adaptive functions; however, the conditions under which the experiences are recorded may allow faulty observations, distorted memories, and misinterpretations. Field investigations add an element of reproducibility and fuller and more considered observations and measurements; but because the situation remains uncontrolled, troublesome confounding variables may continue to mislead investigators and contribute uncertainties to conclusions. Carefully carried out experimental/laboratory studies may effectively eliminate confounds and artifacts, but often at the cost of removing or diluting the meaningfulness and psychological salience of what is required by the test conditions. Experiential explorations allow intimate, first hand acquaintance with the studied phenomena, but this investigatory process is extremely subjective and heavily reliant upon the dispositions and skills of the individuals involved. An integral inquiry strategy (see Braud, 1998) that combines several methods can avail itself of the advantages of the various methods while countering their respective disadvantages.

Important Research Findings

Case studies, field investigations, and experiential explorations may provide indications, clues, and suggestions that can be followed up by more conclusive experimental/laboratory work. However, because of their more naturalistic nature, the former three methods might be able to yield unique information that even the finest laboratory studies might never be able to provide, due to the latter's intrinsic artificiality and limitations. Similar considerations apply to investigations of Yoga: Some of the more profound accompaniments and outcomes of yoga practise remain beyond the grasp of current physicalistic and "rational" laboratory methods.

Some of the major findings of psi inquiry are presented in this section. Although these have been supplemented, in some cases, by findings from the other three approaches, most of these findings derive from experimental/laboratory work. The designs of the studies generating these findings are relatively straightforward. Findings that apply to receptive psi (ESP, telepathy, remote viewing) derive from experiments in which research participants are asked to psychically perceive which of a known set of objects (e.g., cards) is being displayed beyond the reach of their conventional senses (in so-called restricted response or forced-choice studies) or, alternatively, asked to psychically describe a randomly selected distant image, picture, geographical site, or location – either by itself or as it is viewed by someone else (in so-called free response studies). Findings that apply to active psi (psychokinesis [PK]) derive chiefly from studies in which research participants are asked to influence, mentally and at a distance, randomly varying physical systems (e.g., bouncing dice, electronic random event generators based on random physical processes such as radioactive decay or thermal noise in semiconductors) or freely varying living systems (e.g., changing physiological activities of other persons, changing behaviours of distant animals). In all of these studies, precautions are taken to rule out possibilities that the results might be contaminated by subtle sensory cues (ruled out by separating the participant from the target stimuli by means of distance and/or shielding), rational inference or guessing what the target might be (ruled out by truly random selection of target events), motivated errors (ruled out by the use of blind judging techniques),

chance coincidence (ruled out through appropriate statistical analyses), or normal influence (ruled out in psychokinesis experiments by choosing target systems such as radioactive decay that cannot be influenced by normal means).

For the purposes of this chapter, three types of findings are considered: (1) proof-related findings that simply demonstrate the existence of certain forms of psi, (2) process-related findings that indicate the modulating influence of particular physiological or psychological variables on the strength or likelihood of psi, and (3) process-related findings that explore variables directly or indirectly related to the principles and practises of the Patañjali *Yoga-Sûtras* (see Section III for this third set of findings).

Proof-related findings

Only a selected sample of a large number of studies that demonstrate the existence of various forms of psi can be mentioned here, and mentioned only briefly. Details of the study designs and results can be found in the cited sources.

- 1. A very large number of experiments have been conducted in which relatively unselected research participants were asked to "guess" which cards are being presented or viewed at a distant, shielded location. These are restricted-response studies in which obtained results can be statistically compared with results expected on the basis of chance alone. Meta-analyses (the application of statistical tests to the results of large bodies of comparable experiments) have indicated that participants were able to identify significantly more cards than would be expected on the basis of chance alone, effectively demonstrating the existence of psi (in the form of ESP) in these studies (see Radin, 1997).
- 2. Similar restricted-response card-guessing studies have been conducted in which the cards to be guessed were randomly selected and displayed at some *future* time; again, meta-analyses have indicated significant extra-chance scoring in these studies, demonstrating the existence of psi in the form of precognition (see Honorton and Ferrari, 1989).
- 3. Extended experimental series, using the two designs mentioned above, have also been conducted with specially selected high-scoring research participants; many of these studies have yielded significant results, indicative of psi (e.g., Rhine and Pratt, 1954; see Parker and Brusewitz, 2003, for a listing of similar studies).
- 4. Many free-response ESP studies have been conducted, in which participants in their normal, everyday state of consciousness were asked to describe pictures that were either displayed or viewed by another person at a distant, shielded location; meta-analyses have indicated significant evidence for psi in such experiments (see Milton, 1997).
- 5. Many free-response, remote viewing studies have been carried out, in which participants were asked to accurately describe distant geographical sites, buildings, and natural and human-made features that were being visited by another person; these remote viewing experiments have yielded significant evidence for psi (see Nelson, Dunne, Dobyns, and Jahn, 1996; Utts, 1996).
- 6. Very large numbers of experiments have been conducted in which research participants were asked to influence, mentally and at a distance, the outcomes of mechanical (e.g., bouncing dice) or electronic (e.g., random generators based on radioactive decay) random processes; meta-analyses have indicated the presence of psi (in the form of psychokinetic

influences of inanimate target systems) in these experiments (see Dunne and Jahn, 1992; Dunne, Nelson, and Jahn, 1988; Radin and Ferrari, 1991; Radin and Nelson, 1989; Steinkamp, Boller, and Bosch, 2002).

7. Experiments have been conducted in which research participants were asked to influence, mentally and at a distance, the physiological or behavioural activities of other persons, animals, or cells; meta-analyses have revealed significant evidence for psi (in the form of psychokinetic influences on animate target systems) in such experiments (see Braud, 2003; Schmidt, Schneider, Utts, and Walach, 2004). These are described as distant mental influence (DMI) or direct mental interactions with living systems (DMILS) experiments.

Process-related findings

Laboratory studies have been conducted to determine how certain physiological and psychological factors might influence the likelihood, magnitude, or accuracy of psi functioning. Such experiments not only illuminate the roles of these studied variables, but they also provide additional evidence for the existence of psi. Here is a small sampling of investigations of factors that are relatively unrelated to Yogic principles and practises.

There may be similarities in the processing of information acquired via subliminal perception and extrasensory perception, in terms of the psychological and brain processes involved, and there are relationships between memory functioning and ESP functioning (see Rao, 2002, pp. 83-85, 88-89).

Attitudes and beliefs influence psi performance; for example, one of the classic findings in parapsychology is that persons who believe in the possibility of ESP (so-called sheep) score higher than those who disbelieve in this possibility (so-called goats) in ESP tests (see Lawrence, 1993).

Research participants who are less defensive tend to score higher in ESP experiments than persons who are more defensive (see Haraldsson, 1978).

Outcomes of psi experiments depend not only upon the characteristics of the ostensible research participants but also upon those of the researchers themselves and even those of other personnel connected with the conduct of the experiments; these observed experimenter effects point to the difficulty of localizing the sources of psi in any experiment (see White, 1977).

Psi functioning can occur and be revealed not only through conscious imagery, drawings and verbal descriptions, but also through more "unconscious" physiological reactions and through changes in behaviour, perception, and memory (see Braud, 1981a, 1981b; Stanford, 1974a, 1974b).

Psi functioning can be sufficiently reliable and accurate to allow the transmission of specific information and messages (e.g., for transmitting the word peace, without error, in the psi equivalent of International Morse Code; see Carpenter, 1975; Ryzl, 1966).

Additional comprehensive and detailed information about psi functioning may be found in the following resources: Edge, Morris, Palmer, and Rush (1986); Griffin (1997); Krippner (1977, 1978, 1982, 1984, 1987, 1990, 1994); Kurtz (1985); Parker and Brusewitz (2003); Radin (1997); Rammohan (2002); Rao (2001, 2002); Targ, Schlitz, and Irwin (2000); Thalbourne and Storm (2005); and Wolman (1977).

With this background on the evidence for the existence of various forms of psi, and some of the important variables that may modulate psi functioning, we can now move on to the heart of this chapter, which is a consideration of the specific ways in which the Patañjali *Yoga-Sûtras* are supported by certain psi research findings and how the principles and practises of the *Yoga-Sûtras* might enhance our understanding of psi functioning.

III. Interrelationships of Yoga-sûtras, Siddhis, and Psi Research

By teaching the normal mind methods of restraining its own vagaries, with the aim of gaining supreme mastery over itself, and of ultimately rising above itself. Indian philosophy distinguishes its beliefs from those of all other known systems of philosophy or psychology. The Yoga system of Patañjali deals specifically with the process of mind control.

Swami Prabhavananda (*The Spiritual Heritage of India*, 1969, p. 21)

If we examine in greater detail the various exercises described in the Yoga-Sûtras, especially in the second and third chapters, we find that several of these practises are quite relevant to research in parapsychology. These practises – which have variously been described as forms of royal $(r\hat{a}ja)$, eight-limbed (aatanga), or action $(kr\hat{v}a)$ yoga – are designed to systematically and progressively free the practitioner from disturbances or distractions at various levels social, environmental, somatic, emotional, and cognitive. Their chief applicability to psi inquiry is that these practises might help practitioners become generally less distracted and calmer in body and mind, and this increased quietude, accompanied by a more inwardly-directed focus of attention, might facilitate access to more subtle, internal carriers of psychically-sourced information. Honorton (1974, 1977, 1981) likened the Patañjali yogic practises to a systematic program of psychophysiological noise- or distraction-reduction that might help reduce factors that ordinarily interfere with or mask psi "signals". Braud (1975, 1978) identified several sources of psi-interfering "noise" or distractions and described methods for reducing interferences at these various levels; many of these noise-reducing, psi-conducive procedures closely resemble the yogic self-regulation practises described by Patañjali. In addition, some of the attainments (siddhis) themselves, described in the third chapter (vibhûti padâ) of the Yoga-Sûtras, closely resemble forms of psi that are of great interest to parapsychologists.

The Eight Limbs in Greater Detail

Limb One: Yama

This refers to the five major restraints or abstentions from violence and injury (*ahimsâ*), falsehoods (*satya*), stealing (*asteya*), lustful sensuality (*brahmacarya*), and greed (*aparigrahah*). These restraints regulate the yogi's social life and serve to eliminate or reduce interpersonal distractions.

Limb Two: Niyama

These are observances that can foster a disciplined, orderly, and harmonious life. They include purity (*auca*), contentment (*santoṣa*), constant practise (*tapas*), self-study (*svâdhyâya*), and self-surrender and attention, devotion, and surrender to the Lord (*lúvara-praṇidhâna*). *Niyama* helps assure equanimity and a reduction of intrapersonal distractions.

Limb Three Âsana

This limb (*anga*) refers to the establishment of a steady, comfortable posture (*âsana*). This fosters relaxation; reduction of tension, effort, and striving; and can lead to profound cognitive absorption; somatic distractions are reduced.

Limb Four: Prâņâyâma

This refers to restraint or control (*yama*) of the vital airs, life force, or vital energy (*prâna*) through the regulation of the respiratory process. This process leads to further quieting of the body and mind, and further reduces somatic and emotional distractions.

Limb Five: Pratyâhâra

This is withdrawing sensory activity from control by external objects. "The senses disunite themselves from their own objects and resemble, as it were, their own form of consciousness" (Govindan, 2001, p. 121). The sensory processes remain active, but there are no external sources of information for them to detect; the senses, now, are akin to searchlights that shine upon nothing in particular. This sensory restriction frees the attention from external, environmental distractions; the mind becomes more tranquil and pure.

Limb Six: Dhâranâ

Dhâraṇâ usually is translated as *concentration* – the binding of consciousness to one place, object, or idea. Attention is exclusively focused upon one object or idea for some time. As a result, the mind becomes steady and less disturbed. The ambit in which the mind is allowed to wander is greatly reduced; thought waves lessen in number and magnitude. In discussing *dhâraṇâ*, Prabhavanada (1969) adds the qualification that this concentration should involve "holding the mind within a centre of spiritual consciousness in the body, or fixing it on some divine form, either within the body or outside it" (p. 254) – i.e., it is important that concentration have a spiritual focus.

Limb Seven: Dhyâna

Dhyâna usually is translated as *meditation*. This is the unbroken flow of thought toward the object of concentration. *Dhyâna* is prolonged and well-mastered concentration; it is more effortless than *dhâranâ*.

Limb Eight: Samâdhi

In both *dhâraŋâ* and *dhyâna* there is still an object and a subject; there continues to be mental self-awareness. In *samâdhi*, both distractions and self-awareness disappear and the "object" of attention, alone, remains in the field of awareness. In *samâdhi*, the distinction between subject, object, and their interrelationship vanishes; one "becomes" the object upon which one is meditating. The "meditator" disappears, and the true nature of the meditative object shines forth, undistorted and untainted by the mind of the meditator. The essence of the "object" is known directly. This *samâdhi* process is often translated as *absorption, cognitive absorption*, or *ecstasy*. Govindan (2001) has provided an important alternative translation of the *sûtra* describing *samâdhi*: "Cognitive absorption [*samâdhi*] is that meditation [when] the whole object [i.e., consciousness] shines forth, as if devoid of its own form" (p. 128). Here, what "shines forth" seems to be not the meditative object itself (unless that object were a spiritual object, as Prabhavananda suggests), but consciousness itself – i.e., *puruṣa*. According to Vivekananda (1982), *samâdhi* occurs when *dhyâna* "gives up all forms and reveals only the meaning" (p. 183).

The first five limbs (*angas*) are preparatory and set the stage for the successful practise of limbs six, seven, and eight – the three inner limbs (*antar-angam*) that constitute yoga proper. Their practise reduces internal, cognitive distractions. When *dhâranâ*, *dhyâna*, and *samâdhi* (concentration, meditation, and profound absorption) are practised together, the composite

process is called *saṃyama*. *Saṃyama* might be translated as *constraint*; *thorough*, *complete*, *or perfect restraint*; or *full control*; it might also be translated as *communion* or *mind-poise*. *Saṃyama* conveys a sense of knowing through being or awareness through becoming what is to be known. Through mastery of *saṃyama* comes insight (*prajñâ*), and through its progressive application, in stages, comes knowledge of the Self and of the various principles of reality (*tattvas*). With increasing yogic practise come a variety of mystical, unitive experiences, states, conditions, or fulfillments – the various *samâdhis*.

The Siddhis

The third chapter (*vibhûti pada*) of the *Yoga-Sûtras* describes the various attainments or accomplishments (*siddhis*, powers) that arise when *samyama* is applied in various ways and to particular objects. Patañjali provides a selective listing of these attainments. Some (e.g., Taimni, 1975) have suggested that Patañjali may deliberately have introduced incomplete and even misleading information into the *siddhi* listings, in order to minimize their misuse by inappropriately prepared or ill-motivated practitioners. It might also be argued that some of these *siddhis* should not be understood literally but, rather, metaphorically or anagogically; this possibility is treated in Section IV of this chapter.

Here attainments (*siddhis*) are associated with various forms of *samyama*: knowledge of the past and future; knowledge of all things; knowledge of previous births; knowing the thoughts of others; invisibility; knowledge of death; power to transmit friendliness; the strength and other characteristics of animals; knowledge of the subtle, concealed, and remote; knowledge of the world and cosmic regions; knowledge of the stars arrangements and movements; knowledge of the body's constitution; cessation of hunger and thirst; motionlessness; a vision of perfected ones; knowledge of the nature of consciousness; Self-knowledge; spontaneous intuitive flashes based in hearing, touching, seeing, tasting, and smelling; entering into another body of consciousness; imperviousness to water, mud, and thorns; levitation; radiance; clairaudience; the power to travel across space; mastery over the five elements; bodily perfection and invulnerability of its functions; mastery over the principles of nature; supremacy over all states of existence and omniscience; knowledge arising from discrimination; and absolute freedom.

According to the Yoga-Sûtras, specific siddhis are acquired or manifested through samyama on specific "objects," thoughts, or phenomena. For example, samyama on the navel cakra yields knowledge of the body's constitution; samyama on the spiritual heart (hrdaya) – the centre of our being – yields knowledge of the nature of consciousness; samyama on the relationship between the ear and the ether ($\hat{a}ka\hat{u}a$) yields clairaudience; samyama on the illuminated inner senses yields knowledge of the subtle, concealed, and remote; and so on.

It can be seen that some of the aforementioned *siddhis* are relatively mundane, some physiological, some psychological, some paranormal, some spiritual and mystical. Some of these might be understood as the fruits of ordinary deep thinking or pondering, whereas others might be resultants of other forms of knowing – direct knowing, insight, intuition, or revelation. Some of the *siddhis* (e.g., knowing the thoughts of others; clairaudience, knowledge of the subtle, concealed, and remote) are identical, or similar, to the forms of psi mentioned in Section II of this chapter.

The relevance of the *siddhis* to psi inquiry becomes clear. Study of the *siddhis* could help in elaborating the nature of some psi manifestation already familiar to psi researchers and could also help reveal other forms that have not yet been explored in parapsychology. Of greater interest, in the context of process-related psi studies, examination of the eight-membered (limbed) path of yogic practise – in the course of which the *siddhis* are believed to spontaneously or deliberately manifest – could reveal methods through which psi functioning might be fostered or enhanced. A greater production of psi experiences could, in turn, facilitate both the study and understanding of psi.

Yogic Practises and Psi Research

In certain areas of process-related psi research, researchers have explored the possible psi influences of factors directly or indirectly related to the eight major forms of yogic praxis. Representative examples of these areas, and their correspondences with the eight practises, are presented in Table 1. Table 1 is organized simply to indicate concentrations and patterns of research, rather than precise one-to-one correspondences; it is recognized that the various yogic practises are interrelated, as are the processes at work in the various psi research areas.

PSI RESEARCH AREAS	YOGIC PRACTISES		
	Yama (restraints) Niyama (observances)		
Relaxation research Hypnosis research Physiological research	<i>Âsana</i> (postures) <i>Prânâyâma</i> (vital energy/breath control)		
Dream telepathy research Ganzfeld research	Pratyâhâra (sensory withdrawal)		
Concentration/visualization in receptive psi Concentration/visualization in active psi Meditation research Absorption research	Dhâraṇâ (concentration) Dhyâna (meditation) Samâdhi (absorption)		

Table 1: Areas of Psi	Research and	Corresponding	"Limbs" of	Yogic Practise

Somatic quietude

The cluster of relaxation, hypnosis, and psychophysiological psi studies are related to the cluster of *âsana* and *prâņâyâma* practises in that all of these involve a reduction in somatic distractions. The muscular, autonomic, and emotional quietude that accompany *âsana* and *prâņâyâma* praxis have been produced, in psi research, not by those particular techniques but have been mimicked by related methods of progressive muscular relaxation, autogenic training, hypnosis, biofeedback, and self-regulation procedures. In receptive psi studies, research participants have been asked to describe hidden pictorial targets under conditions of induced relaxation, and relaxation results were compared with those obtained under suitable control or contrast (nonrelaxed or tension-induced) conditions. In some cases, degree of relaxation was monitored via electromyographic recording. Analyses of bodies of research using relaxation techniques have yielded strong evidence for accurate psi functioning under conditions of relaxation, and some studies indicated significant positive correlations between degree of relaxation and degree of psi accuracy (see Braud, 2002; Honorton, 1977; Storm and Thalbourne, 2001).

Hypnosis studies are relevant here, because of the strong relaxation component present in most hypnotic conditions. Reviews and meta-analyses of research findings indicated that hypnosis was conducive to receptive psi functioning (see Braud, 2002; Honorton, 1977; Schechter, 1984; Stanford and Stein, 1993).

Somatic quietude is also reflected in reduced physiological arousal, as indicated by reduced sympathetic nervous system activity. A review of relevant laboratory studies indicated enhancement of receptive psi under conditions of reduced sympathetic nervous system activity (Braud, 1981b, 2002).

Sensory restriction

In the yogic practise of *pratyâhâra*, attention is withdrawn from external objects that usually provide stimulation of the senses. Two conditions that duplicate this sensory restriction process have been studied extensively in the laboratory, and both have been found to be psi-favourable. These two conditions are the nocturnal dream and the Ganzfeld procedure. In both of these, there is a reduction in the processing of external sensory information, an inward-turning of attention, and an increase in imaginal activity and (internal) visual imagery. Receptive psi has been studied in the laboratory under both of these conditions. In dream-telepathy studies, persons were monitored in a sleep laboratory and awakened and asked to describe dream content when electrophysiological monitoring equipment indicated the presence of dreaming (rapid eye movements, an activated electroencephalographic pattern, and reduced muscular tension). In Ganzfeld studies, uniform visual and auditory fields were produced by means of unpatterned light and sound stimulation; such sensory restriction or privation can produce an altered state of consciousness that resembles the twilight (hypnagogic/hypnopompic) state between waking and sleeping. In both sets of experiments, the research participant's task was to become psychically aware of the content of a visual target picture hidden from normal sensory access – i.e., placed at a distance or viewed by another person at a distance. Reviews and meta-analyses of the results of many dream telepathy and Ganzfeld telepathy experiments indicated that both of these conditions of sensory restriction/sensory withdrawal were favourable to receptive psi functioning (see Braud, 2002; Child, 1985; Rao, 2002).

Cognitive quietude

Like bodily, emotional, and sensory quietude, cognitive quietude – a stilling of the thought ripples that can disturb a quiet, tranquil mind, such as the condition that can accompany meditation – also might be psi-favourable. This inference that meditation might be psi-conducive is supported by findings that meditation tends to be accompanied by reduced muscular tension and reduced autonomic (sympathetic) arousal, and also by traditional Indian beliefs and anecdotal observations that paranormal events (*siddhis*) may occur spontaneously at certain stages of meditative practise (see, e.g., Kanthamani, 1971; Rao, Dukhan, and Rao, 1978; Smith, 1966). With these possibilities in mind, Honorton (1977) reviewed 16 experimental studies of psi performance during or immediately following meditation and found that 9 of the 16 studies yielded significance evidence for psi (in both receptive [ESP] and active [PK] forms). Some of this research was further reviewed by Rao (2002), who warned that some of these studies – like studies of meditation and other processes – suffered from a lack of appropriate control or contrast conditions. Another review – focusing on the possible role of meditation in psychokinesis performance – found that results of all but one of eight studies were consistent with the expectation that the practise of meditation would be favourable to the occurrence of

psychokinetic effects (Braud, 1989). It should be pointed out that in many of the meditationpsi studies, the "meditation" process studied has been of a rather "mild" form, rather than the much more intensive forms of *dhâraṇâ*, *dhyâna*, and *samâdhi* (and their conjoint practise, as *samyama*) treated in the *Yoga-Sûtras*.

Related to meditative conditions is the construct of *absorption*, as used in psychological research. In the latter, absorption typically is defined as "a 'total' attention, involving a full commitment of available perceptual, motoric, imaginative, and ideational resources to a unified representation of the attentional object" (Tellegen and Atkinson, 1974, p. 274). Note that this form of absorption is not necessarily identical to the form of absorption that may occur in the yogic practise of *samâdhi*. A standardized measure of (the psychological form of) absorption has been used in some psi studies. Only some of these studies (e.g., Stanford and Angelini, 1984) have found significant positive correlations between psi performance and absorption. However, Stanford (1987) has suggested several aspects of the psi-absorption studies that might have obscured the predicted relationship between these two variables.

Concentration has not been formally studied in psi research. More informal observations have suggested that concentration on target events, and then the release of such concentration, has often been used by successful participants as they prepare for their psi "testing" (e.g., White, 1964); and concentration on target events in ESP tests and on desired outcomes in PK tests invariably is present to some degree in nearly all experimental studies. The degree and quality of concentration, in a sense that more closely resembles *dhâraṇâ*, would seem to be a useful topic for future psi research.

In summary, the roles of the last three limbs of yogic praxis have, thus far, not been tested adequately in contemporary psi research.

Siddhi-relevant Indications from Psi Research

Findings from experimental psi research studies are relevant to the *Yoga-Sûtras* comments on *siddhis* in two ways:

- 1. Certain "attainments" mentioned in the *Yoga-Sûtras* third section have, indeed, been found to exist (viz., telepathy, clairvoyance, precognition, psychokinesis). Evidence for these forms of psi functioning has been questioned by various skeptics, counter-advocates, and debunkers. However, positive and replicable psi findings continue to occur even when possible confounding, artifactual factors have been eliminated from the studies. The results of many well-controlled psi studies cannot be accounted for adequately by alternative interpretations based upon the possibilities of subtle sensory cues, rational inference, or chance. The reader is referred to the resources mentioned near the end of Section II for additional information about criticisms of psi research and their refutations.
- 2. Some of the yogic practises mentioned in the *Yoga-Sûtras* have, indeed, been found to be associated with enhanced psychic functioning. As indicated above, significant evidence for psi functioning has been found in association with at least rudimentary forms of practises (such as sensory withdrawal and meditational or protomeditational techniques) that reduce sensory, somatic, and cognitive distractions or disturbances. Because significant results have been observed in connection with limited forms of these practises, it is possible that more extensive and intensive practise of the same or similar techniques might yield even stronger or more consistent psi results.

There has been a curious absence of systematic psi research on the possible roles of the first two foundational limbs of yogic practise – *yama* and *nîyama*. Additionally, the possible effects of *âsana* and *prâņâyama* have not been directly assessed in formal psi research, although very preliminary and partial forms of such exercises are included in at least some of the psi-conducive procedures employed in psi research laboratories. Finally, the progressive and intensive conjoint presence – as *saṃyama* – of *dhâraṇâ*, *dhyâna*, and *samâdhi*, has not been adequately explored. Investigations of these neglected areas can be ways in which future psi inquiry might be usefully informed by the *Yoga-Sûtras*.

Still other psi findings are relevant to the Patañjali *Yoga-Sûtras* and *siddhis*. There is a nonlocal aspect to psi functioning. Both receptive (ESP) and active (PK) forms of psi can operate at a distance – through space (when distant targets are involved and in findings derived from group or global consciousness studies; see Nelson, 2001; Radin, 1997) and through time (in instances of precognition and retroactive intentional influences; see Braud, 2000). These findings are congruent with *Yoga-Sûtras* claims of processes that are not bound by the usual constraints of space, time, and agency. In addition, some psychical researchers accept that a case may be made for the possibility of past lives (see Mills and Lynn, 2000), which is consistent with certain reincarnation claims found in the *Yoga-Sûtras* claims are findings regarding out-of-body experiences (see Alvarado, 2000) and other psi-related experiences and events (see Cohen and Phipps, 1992).

The foregoing findings indicate that psi functioning may be especially likely and effective under special conditions induced by practises similar to those described in the *Yoga-Sûtras*. However, psi functioning also occurs spontaneously in lived experience and also under more "ordinary" conditions in the laboratory. For example, it has been claimed that no special conditions or psychological preparations are needed for successful "remote viewing." One of the *Yoga-Sûtras* (IV:1) suggests that *siddhis* might be the result of birth, herbs, *mantras*, intense practise, and cognitive absorption. Thus, certain individuals might have greater predispositions for psi functioning than others due to genetics (and, in Indian worldviews, "birth" would include possible *kârmic* influences from past lives in which yogic or yogic-like practises might have occurred) and environmental influences and practises (other than yogic praxis). Forms of "preparation" such as those just mentioned could be responsible for some instances of facile psi functioning seemingly unconnected with formal yogic or yogic-like practise and their resultant conditions. According to Yogic views, although psi might occur spontaneously and sporadically in anyone's experience, strong, consistent, and controllable forms of psi may require the support of the processes and practises described in the *Yoga-Sûtras*.

Theoretical Considerations

Yogic techniques reduce sensory, somatic, and cognitive distractions and foster an inward deployment of attention. The reduction of usual sources of interfering or masking "noise" can allow the more facile detection and description of subtle carriers or vehicles of psi information – i.e., thoughts, images, and feelings that otherwise might be ignored. According to this interpretation – the so-called "noise reduction model of psi optimization" – the techniques allow the more effective detection of psi "signals" that already are present (see Braud, 1978; Honorton, 1974, 1977). In addition to reducing noise, however, the various techniques also reduce various internal and external *constraints* on the brain-mind. This de-structuring of the

brain-mind can allow changes to occur more readily. Thus, under conditions of less structure and increased freedom of "movement", it becomes more possible for the brain-mind to change or adjust itself in ways that correspond to the content of what is to be accessed psychically. Freed from internal and external constraints, the brain-mind can remain more delicately poised – being able to change in many possible ways, but having no strong tendency to change in one particular way. Such a delicately poised brain-mind is neither too active nor too inert; rather, it is characterized by a great degree of potential free variability or readiness to change ("lability"). Such lability can allow the brain-mind to change in ways that can better represent or reflect hidden, distant target events in cases of receptive psi – allowing more frequent or more accurate psi impressions to be formed in the first place. Lability (free variability) in physical or other systems can allow those systems to change more readily and be more susceptible to direct intentional (psychokinetic) influences. In the context of this so-called "lability/inertia" model of psi functioning (see Braud, 1981a; Stanford, 1981, 1987), yogic techniques might facilitate not only the detection but also the very production (initial occurrence) of psi.

The Yoga-Sûtras, and the Yoga and Sâmkhya systems in general, have relevance to this lability/inertia model in terms of their concepts of the three gunas. These are the three fundamental characteristics, qualities, or ways of being of matter/mind (prakrti) - rajas (the principle of energy, excitement, force, restlessness, activity, projection), tamas (the principle of mass, inertia, sluggishness, resistance, passivity, obscurity), and sattva (the principle of balance, orderliness, information, intelligence, essence, calmness, clarity, expressiveness). An aspect of sattva is its harmonizing tendency – a balancing of tamas and rajas so that appropriate "movements" or paths involving either of those two tendencies are possible. The three gunas qualities are reflected in both material and psychological realms. An aim of yogic praxis is to reduce *tamasic* and *rajasic* qualities and increase *sâttvic* qualities of the human psyche. The relevance of these gunas to psi is that systems that are characterized by an excess of inertial constraints (similar to tamas) or by over-drivenness or over-activity constraints (similar to rajas) are less susceptible to psi interactions than are systems characterized by more balanced (similar to sattva) modes of functioning (see Braud, 1981a). What are viewed, in the Yoga-Sûtras, as optimal conditions for human psychospiritual development also correspond to optimal conditions of psi functioning, as revealed in both laboratory findings and lived experience.

Models for Understanding and Explaining Psi

Many models or theories have been advanced in attempts to explain psi functioning (see Stokes, 1987, for an extensive treatment of these theories). These models can be summarized in three categories: *transmission* models, *reorganization* models, and *holonomic* models.

The *transmission models* assume that information or energy is transferred from point to point – from a sender to a receiver – carried by some form of mediator through some sort of channel. Many hypothetical carriers have been proposed for these psychic transmissions, including electromagnetic waves, neutrinos, tachyons, and so on. The latest contender is extremely low frequency (ELF) radiation. All such transmission models face serious difficulties in explaining the operating characteristics of psychic effects – their reach over great distances, our inability to shield or amplify these effects, their great acuity or discriminating power, difficulties in encoding and decoding any "signals" that might be involved, and their apparent disregard of usual temporal constraints.

In *reorganization* models, nothing is posited to be transmitted from point to point. Rather, the "noise", randomness, or disorder (i.e., the free variability and readiness for change; "lability") already present at one site (the "target" in cases of psychokinesis or the brain-mind in cases of telepathy, clairvoyance, or precognition) reorganizes in a manner that matches the high degree of structure or organization present at another site (the influencer's strong and focused intentions in psychokinesis or the well-structured target event in telepathy, clairvoyance, and precognition). In such cases, the desired goal outcome (either knowledge or physical influence) would be reconstructed out of raw materials already available at the site of action, in a manner analogous to resonance, but without the typical mediators of familiar forms of resonance. The challenges facing such models are determinations of what precisely "feeds" the reorganization will take.

In the third class of models, which could be called *holonomic* or *correspondence* models, there is neither transmission nor reorganization. All information is already present throughout all parts of all systems, in some implicate or potential form, in a manner not unlike the complex interference patterns in which information is represented in a hologram. This is an attentional deployment model, in which what appears to be the accessing of new information is really a case of knowing or remembering where and how to look within ourselves for knowledge that is already present. The problem then becomes one of accessing or reading out information that is already available at all points, specifying the grounds or fields that make all of this possible, and accounting for creation of novelty within such a system. How do the *intended* read-outs or effects occur at some particular time, as opposed to a vast number of alternative possibilities? This selective attention/selective read-out process is not unlike the *anamnesis* (unforgetting) process that some early philosophers used to explain the apparently "new" acquisition of knowledge: The knowledge had been already present, but forgotten, and had to be remembered or restored later on through deliberate, conscious attempts.

Of the three types of models just described, the principles and concepts of the Patañjali *Yoga-Sûtras* are most consistent with those of the reorganization and holonomic models. Perhaps the focusing or selecting process demanded by the holonomic model could be provided by the *saṃyama* process, directed to particular foci of attention. Regarding the holonomic model, a passage in Taimni (1975) is apropos:

Whatever knowledge can be acquired on the lower planes through external agencies is present in him already in its totality. Whatever powers and faculties are developed in the course of evolution are present in him potentially from the very beginning and are merely brought out or unfolded from a latent state into activity provided by *Prakrti*... After the mind has been evolved to a certain stage and the powers of consciousness have been sufficiently unfolded by direct contact with the *Puruṣa* the cognitive faculty can function as a whole without the aid of the five sense-organs. (pp. 341-342)

IV. Additional and Alternative Considerations

A person can truly know the Self only by becoming one with the Self.

– Haridas Chaudhuri "Yoga Psychology," 1975, p. 236

Alternative Modes of Interpretation

Thus far, the *siddhis* have been interpreted literally – as actual "powers" that can yield results observable in the physical world. Psi research findings support at least some literal interpretations of some of the *Yoga-Sûtras*. A major conclusion is that yogic or yogic-like praxis can be associated with certain extraordinary accomplishments and with more effective ordinary accomplishments. There are, however, other possible interpretations of the *siddhis* – psychological, metaphorical, analogical, allegorical, symbolic, and anagogical (spiritual, mystical) interpretations.

Many of the *sûtras* that address *siddhis* can be related to *psychological* processes or attainments and to various aims and rewards of psychospiritual practise and development. For example, qualities and processes such as levitation (lightness), motionlessness, radiance, invulnerability, "traveling" to other places, and even "previous births" (in the sense that everyone lives, "dies," and is "reborn" to and from many different ways of being, during one's ordinary lifetime) could be given psychological rather than physical meanings; these could be subjective or symbolic experiences. Similarly, knowledge of the past and future, knowing the thoughts of others, and similar attainments could be interpreted psychologically – as expected natural outcomes of deep and thoughtful consideration, pondering, and deliberation (i.e., through "meditation" and "contemplation" in the more mundane, nonyogic meanings of those terms).

Additionally, subtle differences in the reading, translation, or meaning of various terms can result in very different interpretations. For example, "knowing the thoughts of another" (in $s\hat{u}tra$ III:19) might be interpreted as "knowing *that* one's thoughts are of another" – that is, there could be increased discernment of the *sources* of one's thoughts: Are they really one's own, and fully aligned with one's own needs and desired path, or are they reflections of the imposed thoughts of others or of various forms of propaganda? Similarly, by practicing *saṃtyama* on the intentions or bodily signs of another person, the content of one's own mind, or the principle by which objects are known (these are alternate translations of the object of *saṃtyama* in different translations of *sûtra* III:19), one can know not only that one's thoughts are, or are not, or are similar to, those of another person, but also one can know some things about another person's mind–from deep reflection and inference. Further, various yogic practises might help one understand better the *nature* of certain possible experiences, without necessarily directly providing the experiences themselves.

Still another mode of interpreting the *siddhis* is that they might occur not necessarily in the physical (gross) realm, but in another realm (a *subtle* or *imaginal* realm) – different from the physical but nonetheless equally "real". Such a realm remains virtually unexplored in professional psi research, yet it has been described in Indian metaphysics and in other spiritual and wisdom traditions (see Braud, 2003). The possibility of *siddhis* occurring at the subtle level is hinted at by Yajnavalkya: "In the *Veda* the wise declare that Yoga bestows the eight excellences [*guṇa* = *siddhi*], [but] they say that the eight excellences [pertain to] the subtle [body], not to the other [i.e., physical body]" (*Mahâbhârata* XII.318.7, cited in Feuerstein, 1974, p. 126).

The eight excellences are the eight great *siddhis* that are listed and commented upon in other yogic works, but only alluded to by Patañjali in Sûtra III:45. These eight *siddhis* are the ability to become as minute as the atom, to expand one's consciousness to the greatest possible expanse, levitation, the power to reach anywhere, power of command and dominion over all of

nature and natural energies, power to create, freedom and omnipotence of will, and ability to fulfill all desires and wishes.

Functions and Limitations of Siddhi Experiences

Traditionally, aspirants have been warned of the dangers inherent in the *siddhis*. Although the *siddhis* are said to develop spontaneously during the course of one's intensive yoga practises, the recommendation is that one should not seek these out, pay special attention to them, or cling to them, but rather, one should treat them as natural byproducts of one's psychospiritual work and move forward in that work. For instance, Ramakrishna is said to have discarded his attained paranormal powers as futile, vain, and heaps of rubbish (Prabhavananda, 1969, p. 259), and Buddha is reported to have said "...It is precisely because I see the peril of the practise of the mystic marvels [i.e., *siddhis*] that I execrate and abhor them and am ashamed of them" (*Dîghanikâya*, I, 212 ff, cited in Eliade, 1975, p. 174).

In an often cited *sûtra* (III:38), Patañjali advised that "these" are obstacles to *samâdhi*, but they are accomplishments or powers in the waking, worldly, outwardly-turned state of mind. It is curious that Patañjali placed this warning in the middle, rather than at the end, of his listing of the various *siddhis*. In the *Yoga-Sûtras*, the referent for "these" is unclear. Some maintain that all *siddhis* listed in chapter 3 are obstacles, others argue that only those *siddhis* mentioned prior to Sûtra 38 should be considered obstacles, and still others contend that this obstacle warning applies only to the *siddhis* in the immediately preceding Sûtra (i.e., spontaneous [supernatural] intuitive flashes based in hearing, touching, seeing, tasting, and smelling).

The *siddhis* might become obstacles because they could shift one's attentional focus to outward things and because they might call attention to egocentric concerns. Both of these emphases could tempt and sidetrack the aspirant from the major aim of yogic practise – to reduce and ultimately eliminate the thought waves of one's mind so that one no longer falsely identifies *purusa* with the manifestations of *prakrti* and achieves Self-realization.

However, the *siddhis* can also serve several useful functions. Because these are considered byproducts of proper practise (especially of *samyama*), their appearances can serve as signposts, as indicators of one's psychospiritual progress. They can provide useful assurances and confidence in what one is doing and in the validity of the principles that inform one's practises. Some *siddhis* can help dispel some illusions – e.g., the illusion that one is always and forever bound by space, time, and agency. Further, acquaintance with certain *siddhis* might help an aspirant's understanding of the more subtle realms explored through yogic practise, and may even serve as useful tools in these explorations.

When Patañjali codified the yogic principles and practises, there was widespread acceptance of other ways of knowing, being, and doing, and of spiritual realities; and remarkable feats and powers were not as necessary to convince one of the reality of these other possibilities. In today's more skeptical age, the existence of "signs" such as the *siddhis* can serve as intimations and reminders of alternative, less familiar aspects of reality. The *siddhis* may serve very different purposes for different times, cultures, persons, and phases of life.

This chapter has focused on formal studies of psi and their relationships to yogic practises and *siddhis*. Equally important, however, are individuals' personal experiences of these phenomena. Personal experiences can provide their own kinds of indications of the validity and usefulness of psi events and of the accompaniments and outcomes of various yogic practises. Both formal research and anecdotal accounts point to the beneficial roles that both psi and yogic practises can play in lived experience. Not only the occurrences of psi, but also their appropriate assimilation, integration, and disclosure, can be associated with benefits in many areas of human functioning and well-being (see, e.g., Palmer and Braud, 2002).

Implications, Applications, and Extensions

Practises similar to those described in the Patañjali *Yoga-Sûtras* – especially meditationrelated practises – are being increasingly applied and their benefits explored in areas of medicine, wellness, counseling, therapy, and spiritual guidance. The practises and principles of yoga psychology are being examined in biofeedback, self-regulation, and psychophysiological research and applications, and they are contributing importantly to academic investigations in areas of transpersonal psychology, mysticism, pure consciousness, and consciousness studies in general. Their relevance to parapsychology is described in this chapter. Thanks to the work of White (1997, 1998) and others, parapsychology is expanding to include a greater range of *exceptional human experiences*. Within conventional psychology, a new emphasis on *positive psychology* is rapidly developing (see Snyder and Lopez, 2002). It is likely that insights that have resided in the Patañjali *Yoga-Sûtras* for centuries soon will find homes in these two more contemporary areas of inquiry, as well.

A serious student begins exploring Yoga not to acquire curious powers, but to attain a greater understanding of oneself and of reality at large. The *siddhis* might be encountered in the process, but quickly transcended. So, too, parapsychologists can, in time, pass beyond an exclusive interest in the well-recognized psi phenomena and advance to a consideration of larger and more spiritual matters. The *Yoga-Sûtras* can provide guidance in such a quest. Prior uses of yoga-related processes in psi research might be likened to stealing jewels from temples. A deeper appreciation of these processes might foster a realization of the purposes for which the temples were constructed in the first place.

References

- Akolkar, V. V. (1992). 'Search for Sharada: Report of a case and its investigation'. Journal of the American Society for Psychical Research, 86, 209–247.
- Alvarado, C. S. (2000). 'Out-of-body experiences'. In: E. Cardena, S. J. Lynn and S. Krippner (Eds.), Varieties of Anomalous Experience: Examining the Scientific Evidence (pp. 183– 218). Washington, DC: American Psychological Association.
- Blakney, R. B. (1941). Meister Eckhart: A Modern Translation. New York: Harper & Row.
- Braud, W. G. (1975). 'Psi-conducive states'. Journal of Communication, 25, 142–152.
- Braud, W. G. (1978). 'Psi conducive conditions: Explorations and interpretations'. In: B. Shapin & L. Coly (Eds.), *Psi and States of Awareness* (pp. 1–41). New York: Parapsychology Foundation.
- Braud, W. G. (1981a). 'Lability and inertia in psychic functioning. In B. Shapin & L. Coly (Eds.), *Concepts and Theories of Parapsychology* (pp. 1–36). New York: Parapsychology Foundation.
- Braud, W. G. (1981b). 'Psi performance and autonomic nervous system activity'. *Journal of the American Society for Psychical Research*, 75, 1–35.
- Braud, W. G. (1989). 'Meditation and psychokinesis'. Parapsychology Review, 20, 9-11.

- Braud, W. G. (1994). 'Honoring our natural experiences'. *Journal of the American Society for Psychical Research*, 88(4), 293–308.
- Braud, W. G. (1998). 'Integral inquiry: Complementary ways of knowing, being, and expression'.In: W. Braud and R. Anderson (Eds.), *Transpersonal Research Methods for the Social Sciences: Honoring Human Experience* (pp. 35–68). Thousand Oaks, CA: Sage.
- Braud, W. G. (2000). 'Wellness implications of retroactive intentional influence: Exploring an outrageous hypothesis'. *Alternative Therapies in Health and Medicine*, 6(1), 37–48.
- Braud, W. G. (2002). 'Psi favourable conditions'. In: V. W. Rammohan (Ed.), *New frontiers of human science* (pp. 95–118). Jefferson, NC: McFarland.
- Braud, W. G. (2003). *Distant Mental Influence: Its Contributions to Science, Healing, and Human Interactions*. Charlottesville, VA: Hampton Roads Publishing Company.
- Brown, D. (1999). The Upanishads: Seven Upanishads and the Aphorisms of Patañjali of Ancient India. Los Angeles: Philosophical Research Society.
- Carpenter, J. (1975). 'Toward the effective utilization of enhanced weak signal ESP effects'. Paper presented at the meeting of the American Association for the Advancement of Science, New York, NY: January, 1975.
- Chaudhuri, H. (1975). 'Yoga psychology'. In: C. T. Tart (Ed.), *Transpersonal Psychologies* (pp. 231–280). New York: Harper & Row.
- Child, I. L. (1985). 'Psychology and anomalous observations: The question of ESP in dreams'. *American Psychologist*, 40, 1219–1230.
- Clark, A. C. (1962). *Profiles of the Future: An Inquiry into the Limits of the Possible*. New York: Harper & Row.
- Cohen, J. M. and Phipps, J. F. (1992). The Common Experience. Wheaton, IL: Quest.
- Crookall, R. (1961). The Study and Practise of Astral Projection. Hackensack, NJ: Wehman.
- Dunne, B. J., Nelson, R. D. and Jahn, R. G. (1988). 'Operator-related anomalies in a random mechanical cascade'. *Journal of Scientific Exploration*, *2*, 155–180.
- Dunne, B. and Jahn, R. (1992). 'Experiments in remote human/machine interaction'. *Journal* of Scientific Exploration, 6, 311–332.
- Edge, H., Morris, R., Palmer, J. and Rush, J. (1986). *Foundations of Parapsychology: Exploring the Boundaries of Human Capability*. Boston: Routledge & Kegan Paul.
- Ehrenwald, J. (1977). 'Psi, psychotherapy, and psychoanalysis'. In: B. Wolman (Ed.), *Handbook of Parapsychology* (pp. 529–540). New York: Van Nostrand Reinhold.
- Eisenbud, J. (1970). *Psi and Psychoanalysis*. New York: Grune & Stratton. Eliade, M. (1975). *Patañjali and Yoga*. New York: Schocken Books.
- Eliade, M. (1975). Patanjali and Yoga. New York: Schocken Books.
- Feuerstein, G. (1974). The Essence of Yoga. New York: Grove Press.
- Garrett, E. J. (1949). Adventures in the Supernormal. New York: Garrett.
- Govindan, M. (2001). *Kriya Yoga Sûtras of Patañjali and the Siddhas*. Bangalore, India: Babaji's Kriya Yoga Order of Acharyas Trust.
- Green, C. E. (1968). *Out-of-the-body Experiences*. Oxford: Institute for Psychophysical Research.
- Griffin, R. R. (1997). *Parapsychology, Philosophy and Spirituality: A Postmodern Exploration*. Albany: State University of New York Press.

- Gurney, E., Myers, F. W. H. and Podmore, F. (1970). *Phantasms of the Living*. Gainsville, FL: Scholars' Facximiles and Reprints. (Original work published in 1886).
- Haraldsson, E. (1978). 'ESP and the defense mechanism tests (DMT): A further validation'. *European Journal of Parapsychology*, 2, 104-114.
- Heywood, R. (1964). ESP: A Personal Memoir. New York: Dutton.
- Honorton, C. (1974). 'Psi-conducive states'. In: J. White (Ed.), *Psychic Exploration* (pp. 616–638). New York: Putnam's.
- Honorton, C. (1977). 'Psi and internal attention states'. In: B. Wolman (Ed.), *Handbook of Parapsychology* (pp. 435–472). New York: Van Nostrand Reinhold.
- Honorton, C. (1981). 'Psi, internal attention states, and the Yoga Sûtras of Patañjali'. In: B. Shapin and L. Coly (Eds.), *Concepts and Theories of Parapsychology* (pp. 55–68). New York: Parapsychology Foundation.
- Honorton, C. and Ferrari, D. C. (1989). "Future telling": A meta-analysis of forced-choice precognition experiments, 1935–1987'. *Journal of Parapsychology*, 53, 281–308.
- Houran, J. and Lange, R. (2001). *Hauntings and Poltergeists: Multidisciplinary Perspectives*. Jefferson, NC: McFarland.
- Kanthamani, B. K. (1971). 'Psychical study in India: Past and present'. In: A. Angoff and B. Shapin (Eds.), A Century of Psychical Research: The Continuing Doubts and Affirmations (pp. 131–138). New York: Parapsychology Foundation.
- Krippner, S. (Ed.). (1977, 1978, 1982). *Advances in Parapsychological Research* (vols. 1–3). New York: Plenum.
- Krippner, S. (Ed.). (1984, 1987, 1990, 1994). *Advances of Parapsychological Research* (vols. 4–7). Jefferson, NC: McFarland.
- Krippner, S. and Achterberg, J. (2000). 'Anomalous healing experiences'. In: E. Cardena, S. J. Lynn and S. Krippner (Eds.), *Varieties of Anomalous Experience: Examining the Scientific Evidence* (pp. 353-396). Washington, DC: American Psychological Association.
- Krishnan, V. (1985). 'Near-death experiences: Evidence for survival?' Anabiosis: The Journal of Near-Death Studies, 5(1), 21–38.
- Kubler-Ross, E. (1969). On Death and Dying. New York: Macmillan.
- Kubler-Ross, E. (1975). *Death: The Final Stage of Growth*. Englewood Cliffs, NJ: Prentice-Hall.
- Kurtz, P. (Ed.). (1985). A Skeptic's Handbook of Parapsychology. Buffalo, NY: Prometheus.
- Lawrence, T. R. (1993). 'Gathering in the sheep and goats: A meta-analysis of forced choice sheep-goat ESP studies, 1947–1993'. Proceedings of the 36th Annual Convention of the Parapsychological Association (pp. 75–86).
- Leuret, F. and Bon, H. (1957). Modern Miraculous Cures. London: Peter Davies.
- Mills, A. and Lynn, S. J. (2000). 'Past-life experiences'. In: E. Cardena, S. J. Lynn and S. Krippner (Eds.), *Varieties of Anomalous Experience: Examining the Scientific Evidence* (pp. 293–314). Washington DC: American Psychological Association.
- Milton, J. (1997). 'Meta-analysis of free-response ESP studies without altered states of consciousness'. *Journal of Parapsychology*, *61*, 279-319.
- Mishra, R. S. (1963). The Textbook of Yoga Psychology. New York: Julian Press.
- Moody, R. A., Jr. (1975). Life After Life. Covington, GA: Mockingbird Books.

- Nakamura, H. (1971). *Ways of Thinking of Eastern Peoples: India, China, Tibet, Japan* (P. P. Wiener, Ed.). Honolulu, HI: University of Hawaii Press.
- Nelson, R. (2001). 'Correlation of global events with REG data: An Internet-based nonlocal anomalies experiment'. *Journal of Parapsychology*, 65, 247-271.
- Nelson, R. D., Dunne, B. J., Dobyns, Y. H. and Jahn, R. G. (1996). 'Precognitive remote perception: Replication of remote viewing'. *Journal of Scientific Exploration*, 10(1), 109– 110.
- Osis, K. (1961). *Deathbed Observations by Physicians and Nurses*. New York: Parapsychology Foundation.
- Osis, K. and Haraldsson, E. (1977). At the Hour of Death. New York: Avon Books.
- Palmer, G. and Braud, W. (2002). 'Exceptional human experiences, disclosure, and a more inclusive view of physical, psychological and spiritual well-being'. *Journal of Transpersonal Psychology*, 34(1), 29–61.
- Parker, A. and Brusewitz, G. (2003). 'A compendium of the evidence for psi'. *European Journal* of *Parapsychology*, *18*, 29–48.
- Pasricha, S. K. (1990). *Claims of Reincarnation: An Empirical Study of Cases in India*. New Delhi: Harman Publishing House.
- Prabhavananda, S. (1969). The Spiritual Heritage of India. Hollywood, CA: Vedanta Press.
- Prabhavananda, S. and Isherwood, C. (1969). *How to Know God: The Yoga Aphorisms of Patañjali*. New York: Mentor.
- Prasada, R. (2003). Patañjali's Yoga Sûtras, with the Commentary of Vyasa and the Gloss of Vachaspati Misra. New Delhi: Munshiram Manoharlal. (Original work published in 1910).
- Radin, D. I. (1997). *The Conscious Universe: Truth of Psychic Phenomena*. San Francisco: Harper Collins.
- Radin, D. I. and Ferrari, D. C. (1991). Effects of consciousness on the fall of dice: A metaanalysis. *Journal of Scientific Exploration*, 5, 61–83.
- Radin, D. I. and Nelson, R. D. (1989). 'Evidence for consciousness-related anomalies in random physical systems'. *Foundations of Physics*, *19*, 1499–1514.
- Rammohan, V. G. (Ed.). (2002). New Frontiers of Human Science. Jefferson, NC: McFarland.
- Rao, K. R. (Ed.). (2001). Basic Research in Parapsychology (2nd ed.). Jefferson, NC: McFarland.
- Rao, K. R. (2002). *Consciousness Studies: Cross-Cultural Perspectives*. Jefferson, NC: McFarland.
- Rao, K. R., Dukhan, H. and Rao, P. V. K. (1978). 'Yogic meditation and psi scoring in forcedchoice and free-response tests'. *Journal of Indian Psychology*, 1, 160–175.
- Rhine, J. B. and Pratt, J. G. (1954). 'A review of the Pearce-Pratt distance series of ESP tests'. *Journal of Parapsychology*, *18*, 165–177.
- Rhine, L. E. (1953). 'Subjective forms of spontaneous psi experiences'. *Journal of Parapsychology*, 17, 77–114.
- Rhine, L. E. (1962a). 'Psychological processes in ESP experiences. Part I. Waking experiences'. *Journal of Parapsychology*, 26, 88–111.
- Rhine, L. E. (1962b). 'Psychological processes in ESP experiences. Part II. Dreams'. *Journal of Parapsychology*, 26, 172–199.
- Ring, K. (1980). *Life at Death A Scientific Investigation of Near-Death Experiences*. New York: McCann & Geoghegan.

- Ryzl, M. (1966). 'A model for parapsychological communication'. *Journal of Parapsychology*, 30, 18–31.
- Sabom, M. B. (1982). Recollections of Death. New York: Harper & Row.
- Sannwald, G. (1963). 'On the psychology of spontaneous paranormal phenomena'. *International Journal of Parapsychology*, 5(3), 274–292.
- Schechter, E. I. (1984). 'Hypnotic induction vs. control conditions: Illustrating an approach to the evaluation of replicability in parapsychological data'. *Journal of the American Society for Psychical Research*, 78, 1–27.
- Schmidt, S., Schneider, R., Utts, J. and Walach, H. (2004). 'Distant intentionality and the feeling of being stared at: Two meta-analyses'. *British Journal of Psychology*, 95(2), 235–247.
- Schouten, S. A. (1979). 'Analysis of spontaneous cases as reported in Phantasms of the Living'. *European Journal of Parapsychology*, 2, 408–454.
- Schouten, S. A. (1981). 'Analyzing spontaneous cases: A replication based on the Sannwald collection'. *European Journal of Parapsychology*, *4*, 9–48.
- Schouten, S. A. (1982). 'Analyzing spontaneous cases: A replication based on the Rhine collection'. *European Journal of Parapsychology*, *4*, 113–158.
- Sidgwick, E. M. (Ed.). (1918). *Phantasms of the Living* [1-vol. abridgment of Gurney Myers and Podmore, same title]. Bound with E. M. Sidgwick, 1923). New York: Arno Press. (Original work published in 1918).
- Sidgwick, E. M. (Ed.). (1923). *Phantasms of the Living* [case from the Journal of the SPR]. Bound with E. M. Sidgwick, (1918). New York: Arno Press. (Original work published in 1923).
- Smith, H. (1966). 'Parapsychology in the Indian tradition'. *International Journal of Parapsychology*, 8, 248–263.
- Snyder, C. R. and Lopez, S. J. (Eds.). (2002). *Handbook of Positive Psychology*. New York: Oxford University Press.
- Stanford, R. G. (1974a). 'An experimentally testable model for spontaneous psi events. I. Extrasensory events'. *Journal of the American Society for Psychical Research*, 68, 34–57.
- Stanford, R. G. (1974b). 'An experimentally testable model for spontaneous psi events. II. Psychokinetic events'. *Journal of the American Society for Psychical Research*, 68, 321– 356.
- Stanford, R. G. (1981). 'Cognitive constraints and ESP performance: On testing some implications of a model'. In: B. Shapin and L. Coly (Eds.), *Concepts and Theories of Parapsychology* (pp. 91–106). New York: Parapsychology Foundation.
- Stanford, R. G. (1987). 'Ganzfeld and hypnotic-induction procedures in ESP research: Toward understanding their success'. In: S. Krippner (Ed.), *Advances in Parapsychological Research*, vol. 5 (pp. 39–76). Jefferson, NC: McFarland.
- Stanford, R. G. and Angelini, R. R. (1984). 'Effects of noise and the trait of absorption on ganzfeld ESP performance'. *Journal of Parapsychology*, 48, 85–99.
- Stanford, R. G. and Stein, A. (1993). A Meta-Analysis of ESP Studies Contrasting Hypnosis and a Comparison Condition. Proceedings of the 36th Annual Parapsychological Association Convention, 105–125.
- Steinkamp, F., Boller, E. and Bosch, H. (2002). Experiments Examining the Possibility of Human Intention Interacting with Random Number Henerators: A Preliminary Meta-Analysis. Proceedings of the 45th Convention of the Parapsychological Association (pp. 256–272).

- Stevenson, I. (1970). *Telepathic Impressions: A Review and Report of Thirty-Five new Cases*. Charlottesville: University of Virginia Press.
- Stevenson, I. (1974). *Twenty Cases Suggestive of Reincarnation* (2nd ed.). Charlottesville: University Press of Virginia.
- Stevenson, I. (1975). *Cases of the Reincarnation Type: Vol. 1. Ten Cases in India*. Charlottesville: University Press of Virginia.
- Stokes, D. M. (1987). 'Theoretical parapsychology'. In: S. Krippner (Ed.), Advances in Parapsychological Research, vol. 5 (pp. 77–189). Jefferson, NC: McFarland.
- Storm, L. and Thalbourne, M. A. (2001). 'Paranormal effects using sighted and vision-impaired participants in a quasi-ganzfeld task'. *Australian Journal of Parapsychology*, 1, 133–170. Swann, I. (1975). *To Kiss Earth Goodbye*. New York: Dell.
- Swann, I. (1993). Your Nostradamus Factor. New York: Simon & Schuster/Fireside.
- Taimni, I. K. (1975). The Science of Yoga. Madras, India: Theosophical Publishing House.
- Targ, E., Schlitz, M. and Irwin, H. J. (2000). 'Psi-related experiences'. In: E. Cardena, S. J. Lynn and S. Krippner (Eds.), *Varieties of Anomalous Experience: Examining the Scientific Evidence* (pp. 219–252). Washington DC: American Psychological Association.
- Tellegen, A. and Atkinson, G. (1974). 'Openness to absorbing and self-altering experiences ("absorption"), a trait related to hypnotic susceptibility'. *Journal of Abnormal Psychology*, 83, 268–277.
- Thalbourne, M. and Storm, L. (Eds.). (2005). *Parapsychology in the Twenty-first Century: Essays on the Future of Psychical Research.* Jefferson, NC: McFarland.
- Ullman, M. (1959). 'On the occurrence of telepathy dreams'. *Journal of the American Society for Psychical Research*, 53, 50–61.
- Ullman, M. (1975). 'Parapsychology and psychiatry'. In: A. M. Freedman, H. I. Kaplan and B. J. Saddock (Eds.), *Comprehensive Textbook of Psychiatry*, vol. 2 (2nd ed.; pp. 2552–2561). Baltimore: Williams & Wilkins.
- Utts, J. (1996). 'An assessment of the evidence for psychic functioning'. *Journal of Scientific Exploration*, *10*(1), 3–30.
- Vivekananda, S. (1982). Raja-Yoga. New York: Ramakrishna-Vivekananda Centre.
- West, D. J. (1957). Eleven Lourdes Miracles. New York: Garrett.
- White, R. A. (1964). 'A comparison of old and new methods of response to targets in ESP experiments'. *Journal of the American Society for Psychical Research*, 58, 21–56.
- White, R. A. (1977). 'The influence of the experimenter motivation, attitudes and methods of handling subjects in psi test results'. In: B. Wolman (Ed.), *Handbook of Parapsychology* (pp. 273–301). New York: Van Nostrand Reinhold.
- White, R. A. (1997). 'Dissociation, narrative, and exceptional human experience'. In: S. Krippner and S. Powers (Eds.), *Broken Images, Broken Selves: Dissociative Narratives in Clinical Practise* (pp. 88–121). Washington, DC: Brunner-Mazel.
- White, R. A. (1998). 'Becoming more human as we work: The reflexive role of exceptional human experiences'. In: W. Braud and R. Anderson (Eds.), *Transpersonal Research Methods for the Social Sciences* (pp. 128–145). Thousand Oaks, CA: Sage.

Wolman, B. B. (Ed.). (1977). *Handbook of Parapsychology*. New York: Van Nostrand Reinhold. Woods, J. H. (1927). *The Yoga System of Patañjali*. Cambridge, MA: Harvard University Press.

Zimmer, H. (1989). *Philosophies of India* (J. Campbell, Ed.). Princeton, NJ: Princeton/Bollingen.