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Synchronicity and Healing

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KEY CONCEPTS

- Jung defined synchronicity as coincidence in time of two or more causally unrelated events which have the same or similar meaning.
- The term “synchron” refers to a single coincidence event that is characterized by (1) low probability, (2) mind–environment connection, (3) similarity or parallel, (4) increased emotional intensity, and (5) ambiguity of meaning.
- Aside from probability and statistics, theories of synchronicity are derived from ideas beyond current scientific causality principles including archetypes, nonlocality, and ecomens as well as theological explanations.
- Higher frequency synchron detectors tend to be more spiritual and religious.
- During psychotherapy the discussion of synchrons can (1) reassure patients that these are common experiences, (2) help strengthen the working alliance, (3) engender feelings of spirituality and gratitude, and (4) increase awareness of subjective–contextual connections.
- Patient problems sometimes closely parallel therapist problems offering the possibility of furthering psychological development for each participant.



As a psychiatrist organizes the history of her similarly aged patient, it becomes apparent that she and one of her patients share almost identical problems with their fathers-in-law. Both psychiatrist and patient are currently confronting an overbearing, critical, intrusive man who is interfering with their respective spousal relationships. The psychiatrist had also recently heard a colleague mention that “my problems walk into my office,” which meant that perhaps this is not an isolated incident for clinical psychiatrists and other mental health professionals. In addition, she had read that reports by the general public of meaningful coincidences were increasing. As an English literature major, she had touched upon the use of coincidence in nineteenth century English literature, including the novels of Charles Dickens and Jane Austen (e.g., Dannenberg, 2004).

Typically these occurrences are called just coincidence, fate, chance, happenstance, serendipity, or cited as examples of God influencing the world or the interconnectedness of human minds. They can also represent symptoms associated with ideas of reference and psychosis. The event was very meaningful to the psychiatrist and fit into a broad, commonly experienced set of meaningful coincidences called “synchronicity,” a term coined by Carl Jung (1973). By working with this patient with a similar problem, the psychiatrist had the opportunity to observe parallel emotional responses, and the consequences of those responses before she, herself, attempted to address her own similar situation.

In the past 20 years, the number of books and papers on meaningful coincidences has expanded exponentially (Figure 18.1). This chapter summarizes some key philosophical concepts and research findings related to these types of events,

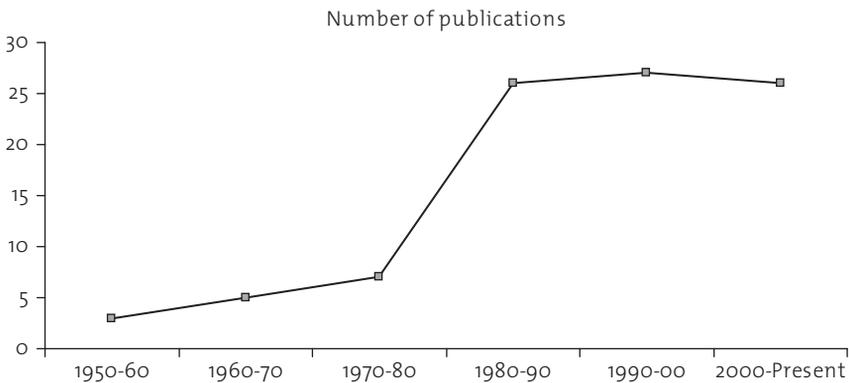


FIGURE 18.1. Number of journal articles and books on synchronicity as a function of the date of publication between 1950 and 2006.

which often are referred to as “synchronicities,” or as being “synchronistic.” We explore the ramifications of personal meanings ascribed to such events, and consider the potential utility of discussing them with patients in the clinical setting.

Why this on-going interest? We can look to the development of Integrative Medicine for a clue. In regard to meeting the multidimensional needs of patients, allopathic medicine has clear limitations in the many specialties covered in this Oxford Integrative Medicine Series. The introduction of old and new paradigms into Western medicine concepts is invigorating our practices. Similarly, the psychotherapy paradigms, while quite useful, are generally limited cause-effect models of Freudian psychoanalysis and Cognitive-Behavior therapy, and might benefit from an expansion of current paradigm limits. Integrative medicine often incorporates principles, concepts, and philosophies of ancient times and healing approaches from non-Western lands, many of which embrace the idea that a single human mind is not distinctly separate from other minds or from its surroundings. Furthermore, integrative medicine recognizes the importance of spirituality as a component of health and wellness. In this chapter we consider the possibility that the everyday occurrence of meaningful coincidences provides a useful means of helping us to navigate the often troublesome waters of daily life and can add a vital transpersonal dimension to the practice of psychotherapy.

We begin with the concept of synchronicity and a proposed definition. Next, we present brief descriptions of several of its many theoretical explanations and end with the recognition that, while we have no satisfactory explanation for it, synchronicity may offer several benefits, including encouragement, psychological insight, guidance, confirmation of decisions, and increased spirituality. We then provide a brief overview of synchronicity-related research, with major emphasis on our *Weird Coincidence Survey*. Finally, we address the problem of interpreting synchronicities, followed by their potential use in psychotherapy and implications for future research.

Concept of Synchronicity

Each human life is intersected by chance events. Each chance event appears, by definition, as unlikely and unpredictable. Yet the likelihood of chance events occurring in one's daily life remains quite high. When two or more chance events are interrelated in a way that has personal meaning, most people disregard the association as coincidence.

Our lives are marked by the intersections of events—meeting a friend, arriving on time, reading a book, finding a job, falling in love, appreciating a sunset, discovering useful information.

The simultaneous occurrence of two events would not generally be called a coincidence. For example, seeing lightning and then hearing thunder would be considered a causal relationship. Hearing an air conditioner turn on at the same time someone starts speaking would appear to be unrelated events happening at the same time and not called a coincidence. We recognize that the lightning caused the thunder and that there was no causal connection between the speaker and the air conditioner. The speaker and air conditioner would not usually be considered to be related to each other.

There also are times when two co-occurring events may not be “just a coincidence.” They may at first seem unrelated, yet, depending upon the perceived similarity as well as the emotion the connection generates, the events could possibly be related. Such thinking might form the subtext of paranoid thinking, or it could present a sharper view of what may be really going on. For example, a woman learns that her husband decides to make a quick trip to Chicago just when her best friend is leaving for Chicago. Just a coincidence?

The term “coincidence” is reserved for two or more events occurring in close physical or temporal proximity that seem to be surprisingly related. One of your patients arriving at the time of his appointment does not qualify as a coincidence. There must be some mystery, something unexplained to make it surprising. The quality of surprise may initiate a search for meaning. If you run into a patient at a Farmer’s Market at which you rarely shop, the coincidence is likely to be surprising but not particularly meaningful to you. If the patient has paranoid tendencies, he might read a great deal of significance into the chance encounter. Optimal use of coincidences requires the ability to consider how they might have personal meaning while at the same time not over-interpreting or over-valuing them. The meaningfulness of a coincidence is to be found in the eyes of the beholder (Hopke, 1997, pp. 19–21). The same scene in a television show or movie can elicit varying responses from different viewers. Similarly, some coincidences elicit strong emotional responses, while others generate “so what?” responses. The degree of meaningfulness can be reflected by the intensity of the experiencer’s emotional response. This emotional response may then be “unpacked” for its particular significance.

Jung defined synchronicity in many different ways. (For a thorough review of Jung’s various definitions, see Clark, 1996.) His classical definition of synchronicity was “a coincidence in time of two or more causally unrelated events which have the same or similar meaning” (Jung, 1973). One event is in the mind, the other in the environment. There is a conjunction between inner and outer states: between thoughts, feelings, and images in one’s mind and features of and events in one’s environment. His most often-quoted example involves the appearance of a scarab-like beetle at the window of his consulting room at the same time that a resistant patient was describing a dream involving a scarab.

The startling simultaneity, according to Jung, broke the therapeutic impasse, thereby freeing the patient to explore her unconscious more fully than she had before the event (Jung, 1973). While many meaningful coincidences involve parallels between inner and outer worlds, many others, outside the classical Jungian definition, occur *between* minds or involve meaningfully related external events (Main, 2007, pp. 18–19). Some people report having the same dream—an example of mind-to-mind synchronicities (Ryback & Sweitzer, 1988). The same number or idea repeatedly appearing in external reality provides an example of outer–outer synchronicities (Kammerer, 1919).

Jung also insisted that simultaneity be a distinguishing feature of synchronicity, as illustrated by the scarab dream story in which the beetle appeared at the window just as the dreamer was describing the scarab in the dream. While simultaneity often startles an experimenter to pay attention, many coincidences take place in sequence—hours or days later, or perhaps even months or years—that could still qualify. For example, Main described a man who, while immersing himself in Zechariah's vision of the four horsemen, whose horses were red, black, dapple, and white, went out on the balcony of his hotel to be greeted with four horses (red, black, dapple, and white) grazing below. Eleven months later, while exploring a natural area, he turned to see grazing nearby another 4 horses of the same colors. The coincidences astounded him.

In his discussion of parallelisms that can occur between inner and outer events, Jung also included the following phenomena: (1) clairvoyance—“seeing” or becoming aware of something that is out of range of the five senses and is later verified; (2) precognition—gaining knowledge about something that is going to happen in the future that eventually comes to pass; and (3) telepathy—communicating with another mind or minds without use of visual, tactile, or auditory sensory inputs. The debate continues about the overlap between these psi phenomena and synchronicity (see Mansfield, 1997; Storm, 1999). Psi phenomena may be providing information in an anomalous way outside of the other usual methods that extend the reach of our senses, such as telephone calls, email, text messaging, books, and other media (Mayer, 2007). Because psi and the more narrow definition of synchronicity share some common features, we include psi events in this discussion.

To simplify the words used here, we propose that a synchronistic event be called a “synchron,” and that the person experiencing a synchron be called a “synchroner.”

We offer the following criteria for defining a synchron:

1. *Low probability/simultaneous.* Low probability occurrence of two or more events usually (but not always) within a narrow time frame that cannot be explained by commonly accepted causes. The narrow

“window of time” often makes the occurrence of the two events seem improbable and therefore significance-generating. The lower the probability of the co-occurrence of the events, the more significant the coincidence will seem.

2. *Thought-environment connection.* The co-occurrence of events usually involves thought or image and an environmental event. The co-occurrence may also involve mental events between two or more people or between two or more environmental events.
3. *Similarity.* The co-occurring events are, in some way, similar; their underlying patterns seem parallel.
4. *Emotional intensity.* The low probability stirs an emotional response in the synchroner. The stronger the emotion, the greater the motivation to find meaning.
5. *Acausal meaning.* The meaning is not explained by known principals of cause and effect, thereby requiring subjective analysis to understand as opposed to causally related coincidences, like thunder accompanying lightening, which are readily explained.

Synchronicity Theories

As reflected in our criteria above, Jung characterized synchronicity as *acausal*: the coincidences were not explainable by conventional scientific and philosophical principles of cause and effect (Jung, 1973). This characterization was not intended to suggest that there were no possible causes, but rather that to understand them we must extend currently accepted scientific views. Attempts to explain synchronicity have utilized several theories, including Jung’s concept of archetypes, as well as observations from quantum physics— especially “non-locality.” We add the concept of “eco-mens” (mind embedded in environment). Many insist that synchronons can be best explained by the laws of probability as chance occurrences. None of these theories is yet to be a proven explanation. We are, at this point, left with accepting this limitation and to consider whether there is practical reality to meaningful coincidences, even though we may not understand why they occur. Like dreams, synchronons appear to our consciousness. Like dreams, synchronons may be considered useless byproducts of our active brains or images with varying potentials for useful commentary on our personal existence.

Cause. Causal thinking holds that an effect is preceded in time by another event: the first event causes the second. Humans learn: “If I do X, then Y will happen.” Since “Y” does not always happen, we associate a high probability for the connection between X and Y. Cause then may be defined by statistical

probability (Storm, 1999). The events comprising a synchron have no apparent statistical association, cannot be understood by causal associations, and therefore seem to lie outside the current conventional laws of our current ideas of reality. The speculations that are being developed to explain meaningful coincidences use complex theories to explain difficult to understand events. Where the balance lies between meaninglessness and meaningfulness is determined by the beliefs of each observer: we are either embedded in a world of symbols awaiting our recognition and use of them, or in a world that is cold, uninvolved, and empty of relationship to us. To touch upon the paradox of these polarities, consider the meanings of the word “chance” as direct reflections of this conflict. In probability contexts, *chance* implies “unlikely” as in *chance* events. In other contexts, *chance* means “opportunity” as in “give peace a chance.” *Chance* can be construed as drily statistical or ripe with possibilities.

Archetypes. Within each human mind, at various levels of awareness, are patterns of psychic function that order and condition human knowledge and experience. As elements of brain function, they operate in the primarily unconscious modes that filter and organize both external and internal inputs (Viamontes & Beitman, 2007). In Greek philosophy, they were known as Platonic Ideas and Forms that give the world its shape and meaning, and, for Aristotle, they lent purpose to the processes of life. For Kant, they were the a priori categories; for Blake, mythic gods and goddesses (The Immortals); and for Freud, the primordial instincts. These universal principles impel, structure, and permeate the world of human experience (Tarnas, 2006, pp. 81–84). Summarizing Jung, Tarnas suggested that

They seem to move from both within and without, manifesting as impulses, emotions, images, ideas and interpretive structures in the interior psyche yet also as concrete forms, events, and contexts in the world, including synchronistic phenomena. (Tarnas, p. 84)

Examples of archetypal situations include death and dying, birth, marriage, romance, war, financial ruin, sudden wealth, betrayal, losing a job, heroism, wonder, beauty, despair, isolation, sex, aggression, feminine and masculine, sickness, joy. The archetypes vary and merge with each other; they are interdependent. They are like chords in music, each standing alone yet together creating the opera of our lives.

Jung believed in a correlation between archetypes and synchronicity—that synchrons were related to the activation of archetypes. He suggested that archetypes become “constellated” or activated during powerful synchronistic events but hesitated to ascribe a causal relationship between an activated archetype and a synchron (Jung, 1973). Evidence from stories and surveys strongly indicates

that the frequency of meaningful coincidences increases during birth, death, marriage, and other major life transitions. Each of these transitions is associated with an archetype (birth and rebirth; death and transfiguration), offering support to Jung's belief. How an activated archetype leads to a synchron is not clear. A practical conceptual approach for understanding the relationship between archetype and meaningful coincidence is to consider that there is a correspondence between them, rather than that they are connected through a causal chain of events. Identifying the category of activated archetype may help to clarify the meaning of the coincidence.

For example, if an emotionally powerful synchron takes place during a dramatic life event, its meaning can be understood within the context of the activated archetype. A woman on an airplane, returning to San Francisco from her widowed father's wedding to his second wife is seated next to a man returning to San Francisco after his father's funeral. They are attracted to each other. This is a remarkable coincidence of two lives. Should the major life events within which familial loss and change are so emphasized be interpreted to suggest that they proceed into exploring a relationship with each other? That exploration must, of course, take into consideration objective traits of potential compatibility. The archetypal power of death and transfiguration accelerates the movement toward exploration, and perhaps an openness to both possibilities—a coincidence with future significance, or an emotion-packed chance event to be remembered only as an interesting encounter.

Quantum Physics. The findings of quantum physics are changing philosophical and psychological views of reality. Quantum experiments demonstrate that, at least in the microworld of subatomic particles, electrons change their motion while they are under observation. Known as the Heisenberg Uncertainty Principle, physicists are teaching us that we may know only one of the two complementary characteristics of a particle. For example, when measuring the speed (or momentum) of an electron, its location becomes uncertain; when measuring its location, its speed becomes uncertain. This uncertainty results from the "interaction" of the measuring device with what is being measured. The photons of light used to determine the position of an electron "push" the electron from its course, obscuring its location or changing its speed.

In quantum physics, space and time are more elastic, and more interdependent. The concept of "now" is becoming more ambiguous, more difficult to define (Mansfield, 1995). Cause and effect are also becoming more mysterious. For example, no one can predict or control which of the many radioactive particles in a set of such particles are going to decay at a given moment. As a group they decay at a fixed rate, but no one can know when a specific particle is going to decay. Similarly, actuarial tables tell us that a certain number of people at a

certain age with a certain history will die at particular time, but the data cannot tell us who will specifically die.

Uncertainty-complementarities, time-space elasticities, and the problem of causality or “acausality” all underscore that, the more we explore non-Newtonian physics, the clearer it is that we cannot rely purely on the tidy principles of cause and effect in the study of synchronicity. In quantum physics, it is *nonlocality* that seems most parallel to telepathy. If two paired electrons of opposite spin are separated, and the spin of one of them is changed, then the spin of the other is *instantaneously* changed, no matter what the distance. No energy or information can be exchanged between them because the effect takes place immediately, faster than the speed of light. The two particles seem connected—entangled, not separate. By analogy, deeply involved (“entangled”) people, like twins, sometimes know at a distance when the co-twin is experiencing pain (Mann & Jaye, 2007). Perhaps telepathy works through paired bonds in a similar way. The quantum connection, however, lacks the meaningful quality that defines synchronicity. Theorizing by analogy can be a first step toward better understanding. As with archetypal reasoning, we can state with confidence that two events *correspond* with each other—particle with particle, loved one with loved one. We cannot, however, attribute causation to telepathy and synchronicity in any of the ways currently accepted by scientific convention.

Eco-mens. Meaningful coincidences are not only hot-house orchids, but also like weeds, wildflowers, and daisies. They run the full range of intensity from minor and insignificant to interesting, funny, and curious types to highly dramatic life-changing ones. More “down to earth” explanations for synchronons are required. The *eco-mens* idea can do just that. The word suggests that mind (*mens*) is embedded in environment (*eco*).

Our bodies are embedded in our environments. Without interaction, human babies fail to thrive, in part because stimulation helps the cortex to expand. Persons placed in sensory isolation chambers may experience strange, sometimes terrifying, journeys (Lilly, 1967). The Central Intelligence Agency (CIA) has added sensory isolation to its list of torture methods. By putting headphones over the ears, blindfolds over the eyes, and cardboard over the hands and arms of prisoners, agents can starve prisoners of stimulation, and easily make them susceptible to outside influence (CIA, 1983). To remain coherent, our sense of self requires continuing input from “outside” of us.

Scientific epistemology would have us believe that we are separate from our surroundings; and that we draw principled conclusions about external events from those observations. Quantum physics has clearly shown that, at least at the micro-atomic level, observation changes what we observe. This, along with other observations, supports the notion that ours appears to be a participatory universe, rather than simply an object-observer universe (Mansfield, 1995). For

example, the Hawthorne effect shows that when humans are observed by others, their behavior changes (Mayo, 1933). Human motivation and decision making are strongly determined by the “demand characteristics of the situations.” We, then, often try to fulfill these expectations. Synchronicity may indicate that we are connected to our surroundings more than we realize. A simple everyday example is when we “sense” someone is staring at us. We turn around, and there are those eyes on us. We seem to be able to perceive the connection. Sheldrake (2003) has shown that we are, indeed, sensitive to people staring at us.

Recent technological advances have further connected our minds to our surroundings. The Internet, cell phones (with text messaging), television, radio, and print media link human minds as never before. Advertisers, politicians, business leaders seek to use the variety of means available to control what each person thinks. Similarly, when one person communicates with another person, the speaker is trying to influence the response of the listener. Interpersonal behavior is characterized by unconscious attempts to induce desired roles in the other person (Beitman & Viamontes, 2007). Our minds resemble fish swimming in a sea of information sources continuously influencing what we feel and think.

Before the explosion of media inputs into each brain, prehistoric human beings lived in small groups, each of whom had a clear role in the group. Each person was important to the whole (Wilson, 1975). It is possible then to theorize that individuals took on specialized functions for the group. A few registered the group’s emotional tone, being able to sense if someone was in trouble. While conventional sensory inputs could be relied upon to know when someone was missing, the “sensitives” could know if the missing person was in danger, or had died or was about to return. This reasoning is based upon frequent reports of such extraordinary knowing (Feather & Schmicker, 2005), suggesting the possibility that these abilities (such as knowing when someone important to the person is in danger, is returning, or has died) are evolutionary capabilities still within us.

Our Cartesian legacy induces us to believe that each of us is separate not only from our social environment but also from the Earth itself. Yet almost everything we see, hear, and touch comes out of the Earth: trees, cars, buildings, dogs, and human beings. Our bodies are created and maintained from ingredients like water and calcium that can only have come from the ground of our being. Our brains are Earth dependent; our minds, then, so deeply enmeshed in brain function, have at least part of their origin in the Earth. Their Earth-mind interface suggests that mind and matter, *psyche* and *terra firma*, may be more connected than we think.

Our connection with the environment sets the stage for meaning-seeking human beings to find purpose, guidance, and encouragement in the

coincidences between mind and environment. Is the meaning out there somehow, implicit in the mind–environment interaction, or is it, as suggested by probability theorists, a false attribution of significance to the caprice of chance?

Probability theory. Conventional science advances through controlled experiments that test for the statistical likelihood of perceived effects happening by chance. If the probability of the difference between the experimental process and a standard process falls well below chance occurrence, then the experiment supports the hypothesis that the differences between the experimental process and the control process are “real.” Statistics, then, provides a major method by which we know what is true and what is false. Since highly meaningful coincidences are often also highly personal, finding an experimental design with a standard control process appears practically impossible. (How does an experimenter control for the subjective meaning-making variable?)

Synchronicity also creates a statistical paradox: these low probability events have a high probability of occurring. The reason, well articulated by skeptical statisticians, lies with the huge number of potential coincidences available between an active human mind in ordinary environments.

How likely is it that someone will recall a person he knew (or knew of) in the last 30 years and, within exactly five minutes, learn of that person’s death? One such calculation suggests that the chance occurrence is about 0.00003. But in a population of 100,000, this means that about 10 of these experiences should occur everyday. (Schick & Vaughn, p. 55)

Statistical perspectives on synchronicity assume that ordinary people underestimate the probability of “unlikely” events. The Birthday Surprise is used to demonstrate this human “weakness.” Also known as the Birthday Problem and the Birthday Paradox, it asks the following question: “In a room of 23 people, what is the probability that 2 of them will have the same birthday?” Common answers usually are quite low—1%, 5%, maybe 10%. After all there are 365 days in the year so how could two people out of 23 have the same birthday? The surprising answer is 50%.

The birthday problem asks whether any of the 23 people have a matching birthday with any of the others—not one person in particular. The probability for one person to match with any other person is much lower. If on a list of 23 persons you compare the birthday of the first person on the list to the others, you have 22 chances of success, but if you compare each and everyone to the others, you have 253 chances. This is because in a group of 23 people there are $23 \times 22/2 = 253$ pairs, which is more than half of the number of days in the year. So the chance that one of these pairs has a matching birthday is not small.

Statisticians use this example to suggest that highly meaningful coincidences are far more likely to happen than most of us think, since we seem to underestimate the probabilities of certain events.

The surprising frequency of reported synchrons may be due to the following: (1) everyday life provides numerous opportunities to find connections between events; (2) people allow themselves excessive flexibility in identifying meaningful relationships between events that have a relatively high chance of co-occurring; (3) similarly, people are willing to include near misses (Diaconis & Mosteller, 1989); and (4) people desire to consider personal experiences as somehow extraordinary (Falk & MacGregor, 1983).

When a person finds meaning in an unlikely experience, statistics cannot explain why the person finds meaning. Statistics can only suggest that the perception of “unlikely” is overestimated. Research suggests that a coincidence may be judged meaningful when perceivers sense that it violates their notions of randomness (Griffiths & Tennenbaum, 2001). This subjective sense of the violation of randomness triggers high emotion and the search for meaningfulness. Research also suggests that the meaningfulness of a seemingly low probability event is much stronger for the person experiencing the event than for those hearing the story about someone else’s synchron (Falk, 1989).

Pragmatics. The scientific method usually requires the formulation of a testable theory for an observation to be considered possibly “real.” When a testable theory is not easily developed, detailed description of the phenomenon may help in its development. Pragmatists argue that we use many ideas and perform many behaviors without a strongly held theory and without statistical support. We give antidepressants for depression without much knowledge of how they work and with even less knowledge about the pathophysiology of depression. Similarly, much hypertension is idiopathic, yet many different and effective medication treatments have been developed. Even less clear are the mechanisms of action of psychotherapy, yet there is good evidence that psychotherapy is helpful.

Whether or not synchrons are random chance occurrences or something more, they can be useful. As described later, synchrons may offer a sense of comforting support, interpersonal and intrapsychic insights, assistance, and guidance. Experiences of synchronicity may be able to increase the sense of being connected to others and our surroundings, as well as inspire appreciation, gratitude, and spirituality, and clarify purpose in life. As described by Coughlin (in this volume), these life-affirming forces promote health and well-being. We may not know the mechanism by which synchrons are formed, but utilizing synchronicity may help people live better lives.

Evidence for Synchronicity

Reports of stories fitting the broad definition of synchronicity number in the thousands (Adrienne, 1998; Begg, 2003; Belitz & Lundstrom, 1998; Cousineau, 1997; Eyre, 1997; Gaulden, 2003; Halberstam & Leventhal, 1997; Hay, 2006; Spangler, 1996; Watkins, 2005). Casual conversations about meaningful coincidences generate many more unreported stories (personal communication from G. Nachman, August, 2007). Does the onslaught of stories, particularly the recent surge of books and websites devoted to synchronicity, provide convincing evidence? Not for scientists. Clinicians use the anecdotes of clinical experience to collect case reports into a series that then can lead to controlled, randomized trials. Currently, we have failed to develop a satisfactory and testable theory. But first, as with any new science, we must start with description. Does the phenomenon exist? What are its many forms? What are the varieties of synchronistic experiences?

RESEARCH OVERVIEW

We review research into these anomalous events by first explicating the differences and overlaps between psi and synchronicity.

They may be differentiated by qualities of *verifiability* and *meaningfulness*. The information received through telepathy, clairvoyance, and precognition can be *verified* by external validation. The event seen or predicted through psi either happened or did not happen. Synchronicity, on the other hand, gains its relevance by rendering an ambiguous experience personally *meaningful*.

Psi and synchronicity can overlap because psi information, like information gained through our usual sensory organs, can form the basis of a synchronon. For instance, knowing who is calling before picking up the phone can be considered a telepathic experience. The context within which this telepathic event is experienced can make it synchronistic. If an individual is in need of comfort, begins thinking about a long-estranged relative, and that relative calls offering comfort, then the psi information will more likely help to create meaning in this coincidence, and therefore a synchronon has occurred.

A continuum of research approaches can be constructed for various degrees of meaningfulness. On the lowest end would be the study of anomalous events that have no meaning attached—the context is depersonalized. This approach characterizes pure psi research. In one paradigm for studying telepathy,

a subject's task is to acknowledge receiving telepathic information from a sender in another room. The sender is staring at one of four diagrams. For each trial, the receiver picks one of the four diagrams while being open to the sender's message. There is no personal meaning for the receiver for any of the diagrams.

The difference between a "random," highly informative phone call and telepathically received clip art is the meaningfulness of the stimulus. For example, a distressed woman received a phone call from a woman she did not know. The caller had dialed the wrong number. The receiver was about to go to the airport to reunite with her abusive husband, who had recently kidnapped their children. He wanted to reconcile, again. The caller began talking about her own abusive husband and how difficult, but liberating, divorcing him had been. The receiver decided not to pick up her husband. The phone call was highly meaningful; it helped to change her mind. The information was personally relevant in a direct way. She was in a highly charged emotional state and received information that helped to redirect her. The class to which coincidence belongs could be studied through a survey by asking respondents how often "an unexpected phone call has kept me out of trouble." The degree of "trouble" will vary and could be rated on a continuum. The bigger challenge would be to design an experiment contrasting a control and experimental group for these highly personal experiences.

Where research is positioned along the continuum of meaning is reflected in a tradeoff between *experimental control* and *ecological validity*. Experimental control refers to a scientist's ability to specify a cause-and-effect relationship by eliminating extraneous variables that could potentially explain an event. Ecological validity refers to the extent to which an experiment resembles the natural context in which it is observed. Studying phenomena in both contexts is important in order to attain a comprehensive understanding of them that is, at the same time, realistic and objective. This tradeoff is especially salient in psi and synchronicity research, where natural observations of these phenomena are powerful and striking, but experimental replications can seem weak and irrelevant.

Current research falls within two methodologies: 1) surveys to assess frequencies and beliefs in synchronicity and psi; and 2) experiments attempting to replicate and validate these anomalous experiences under controlled conditions.

SURVEYS

A particular type of type of telepathic experience, anticipation of telephone calls, was assessed by survey several times by Sheldrake and colleagues (Brown

& Sheldrake, 2001; Sheldrake, 2000). This collection of surveys included informal means (e.g., by raised hand at conferences), and with randomized large-scale samples (in London and Bury, England, and Santa Cruz, California). Several questions were asked of respondents, for instance, *Have you ever had a thought about a person you haven't seen for a while, who has then telephoned you the same day?* and *Have you ever felt that someone was going to telephone you just before they did, and you had no reason to expect that person to call?* These researchers found that within large samples (200, 387, and 200, respectively), individuals experienced telephone “telepathy” in high frequencies. For instance, 80%–95% of individuals assessed informally at conferences had experienced telephone synchrons. In the formal survey (from the three locations), the researchers found between 47% and 78% individuals in the samples had experienced telephone telepathies, with the variable results found in questions tapping specific aspects (e.g., knowing who is calling before picking up the phone, having someone say they were just thinking about you when you call), as well as from the different locations. There was no assessment of the “meaning” for these coincidences. There was also no assessment of what percentage of calls received over a person’s lifetime had this associated synchronicity; hence, there was no way of knowing how likely it was that the occasional correct guessing/sensing was due to chance.

Many people experience bodily sensations that coincide with the bodily sensations of significant others who are in a different location. These experiences may be called “telesomatic,” from *tele* (at a distance) and *soma* (body), and are likely to generate greater emotion and meaning than telephone telepathy. Mann and Jaye (2007) interviewed twenty adult twins in depth about their illness experiences. The researchers built their research on the clinical findings of Schwartz (1967; 1973), suggesting that many people experience the pain of a loved one, both simultaneously and at a distance from each other. The twins reported that the illness or injury of one twin was commonly experienced by the other (Mann & Jaye, 2007). The 20 participants reported over 50 telesomatic experiences: four were in relationship to accidents, five to surgeries, nine to various aspects of pregnancy, and nine to intense emotional states—*anxiety, dread, or depressed mood*. The twins took these coincidences to mean that they were more connected and less separate than other pairs of people.

Henry (1993) surveyed the coincidence experiences among readers of *The Observer* (London). Nine hundred and ninety people responded to a survey appearing alongside a newspaper article on coincidence. From the sample, the vast majority (84%) reported experiencing meaningful coincidences. Large numbers (above 60%) of respondents reported coincidences such as *spontaneous association*, through which an internal thought (such as a name) is manifested externally (such as on the radio) and *small-world encounters*, which

refer to meeting someone connected to one's past in improbable circumstances. Participants reported that these experiences were personally meaningful, significant, and useful, and offered "intuition," "psi," and "chance" as explanations for their occurrence. This data must be considered within the context of a self-selected population, which adds considerable bias to the results. Moreover, the survey appeared with an article on coincidence, which meant most respondents probably came from a subset of the population who were already interested in the topic. Thus, the Henry results, although interesting, cannot be taken to reflect the general population.

The frequency of meaningful chance encounters has been explored within the career counseling literature. Several studies have incorporated questions regarding the frequencies of these chance experiences and their relative impact on career choices. For instance, Meyer's (1989) synchronicity survey noted that significant life-changing events tended to cluster around employment situations. A survey conducted by Betsworth and Hansen (1996) revealed a clear majority (60%) of the sample reporting a serendipitous event in their career development. Furthermore, Bright, Pryor, and Harpham (2005) found that 74% of their respondents had been influenced by a chance event in their career development. Participants reported an average of 7.7 chance events influencing their career paths.

An unpublished dissertation conducted by Meyer (1989) investigated relationships between personality variables and synchronistic experiences. A total of 88 undergraduate students took part in the study, which included several personality instruments as well as a nine-item synchronicity index. Commonly reported specific experiences were: saying what someone else is thinking (or vice versa), thinking of a song and hearing it on the radio, and thinking of a friend who then contacts you. Furthermore, approximately one-quarter of the sample reported that they experienced a life-changing coincidence. These experiences clustered around life challenges (e.g., life-threatening situations), death of others, employment problems, and relationship difficulties.

The tendency to find meaning in ambiguity is likely to be normally distributed, but has not been studied systematically. Some people seem to live their lives through following perceived meaningful coincidences, while others pay them little attention. Of those who pay the most attention, some are likely to use them successfully, while others may create meanings that distort their decision making (Brugger, 2001).

Psi abilities have been studied more systematically. Some people score much higher than others in psi testing (see Parker & Brusewitz, 2003, for specific psi studies with such individuals). Neither age nor gender seems to correlate with special abilities, although extraversion (the tendency to be gregarious and outgoing) appears to increase the probability of psi reports. Believing in the possibility

of telepathy, clairvoyance, and precognition also appears to increase the likelihood of reporting them (Rhine-Feather & Schmicker, 2005, pp. 20–21).

High emotionality and/or familiarity between sender and receiver seem to increase the probability of telepathic communication, as suggested by Sheldrake's telephone telepathy study of sisters (Sheldrake & Smart, 2003a, b), and the telesomatic studies of twins reported above (Mann & Jaye, 2007). As discussed in the following section, participants who scored highest in the *Weird Coincidence Survey* described themselves as more religious and more spiritual than those who scored lowest.

CONTROLLED RESEARCH

A preponderance of statistical evidence lends some credibility to the notion that psi abilities exist and can be replicated under controlled conditions. Radin (2006) reported on many of these studies. One of the most popular methods for studying the psi phenomenon (and telepathy specifically) is the “ganzfeld” procedure. This procedure is said to mimic the natural occurrence of psi (reportedly found in a meditation-like state) and to reduce the interference of external sensory “noise” for information transfer (Bem, 1994). In these studies, a receiver is isolated in a room, wears halved ping-pong balls over the eyes, and is stimulated by red light. He or she also wears headphones carrying white noise. The participant may also undergo progressive muscle relaxation to reduce internal somatic noise. A sender, separated from the receiver, concentrates on a visual stimulus that is randomly selected from a large pool of images. At the same time, the receiver continuously describes his or her mental imagery. The receiver is given several visual stimuli and asked to rate the degree to which each image matches his or her mental image. If the receiver's highest-ranked image is the image being “sent,” it is called a “hit.” The random chance for the receiver to pick the “sent” image is one of four or 25%.

This particular method of studying telepathy has gained favor with both researchers and skeptics over the years. Based on a meta-analysis which combines results across studies, researchers have found statistically significant effects. Across 88 studies with 3,145 trials, Radin (2006) describes a combined hit rate of 32% (compared to the chance rate of 25 or $p < .00000000001$).

As noted in the survey section, a common synchronistic experience is knowing who is calling before picking up the phone. Sheldrake and his colleagues (2003a) attempted to replicate the survey findings under controlled conditions, but in more ecologically valid contexts than traditional telepathic research. A target individual was asked to generate a list of four friends. At a given time, the experimenters would contact one of the four callers (chosen randomly) and ask

that person to call the target subject. The subject would predict who was calling by the first ring and an accuracy rate was calculated. By chance alone, the subject should be able to correctly predict 25% of the phone calls. Using this procedure, Sheldrake found success rates significantly higher than chance (usually around 40%). Furthermore, these studies have revealed much higher accuracy rates for familiar rather than unfamiliar callers, and found that distance had little impact on the accuracy rates of the target individual. These elevated success rates could be partially explained by the high degree of emotional closeness between callers, presumably facilitating a telepathic connection. Similar results were found with the more rigorous stipulations (Sheldrake & Smart, 2003b). The researcher found similar results using emails rather than telephone calls (Sheldrake & Smart, 2005).

Braud (1983) examined *sequential synchronicity* in several case examples using himself as the subject. By identifying words with “special feeling” or “anomalous attention” attached to them, he recorded these instances, as well as instances of a control word for 24 hours. Ten instances of synchronicity were found, and the synchronistic instances were found sooner than the control. Another study had Braud searching for key and control words in a newspaper. The meaningful coincidence hypothesis was again confirmed. Braud suggests that these very preliminary methods for investigating serial meaningful coincidences may be further developed. The crudeness of these studies illustrates the need for far better experimental designs.

Another study examined the synchronistic experience of obtaining unexpected money. Landon (2001) attempted to test how “paying attention” to the possibility of receiving unexpected money during the discrete time period of the study influenced the actual incidence of such experiences. In an effort to integrate the spirit of psi experimentation as it relates to archetypes and the synchronicity principle, this ecologically based study chose money (a universally meaningful “substance”) as the dependent variable and sought to determine: (1) if the participants would experience more events related to money within the “field” of the experiment than they had in the month previously; and (2) if different methods for paying attention had any effect on the quantity or number of times money was received.

Her 60 participants were split into three groups during an experimental period of 4 weeks. The control group was asked just to pay attention to unexpected money; the two experimental groups were asked to alter their behavior (by lighting a candle and focusing attention, or focusing attention in their own way). Results were compared to pre-test incidences of receiving unexpected money (money that came surprisingly and suddenly).

Several findings are noteworthy: (1) by simply enrolling in the study, participants generally reported receiving unexpected money nearly twice the number

of times during the entire study period than they had the month before; (2) those who initially reported high expectations for such results also reported a significantly higher incidence of receiving unexpected money; (3) highly focused concentration generally produced a lower frequency of receiving money than the control group.

Additional studies that systematically manipulate the experiences of individuals to create synchronicities would be useful, especially in regard to clarifying the role of attention and expectation in reported experiences (see Falk, 1989).

MISSOURI WEIRD COINCIDENCE SURVEY

A survey was conducted in 2007 by Beitman and colleagues to identify the frequency of synchronistic experiences in a university population of students, faculty, and staff. An initial item pool of 53 items was constructed from expert ratings, prototypes from other scales (e.g., Belitz & Lundstrom, 1997*; Meyer, 1989), and exemplars of common synchronistic experiences found in stories of synchronicity. These frequency-related items (47 total) were combined with items asking about how respondents analyzed and interpreted the items (6 total), as well as items selected from The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) designed for use in health research (Fetzer Group/National Institute on Aging Working Group, 1999). Also included was a simple continuum scale asking for self-rankings of “religious” and “spiritual.” These two scales and the BMMRS were included with the hypothesis that those who scored higher on the synchronicity scales would score higher on measures of spirituality and religion. Participants were also asked to provide personal examples of synchronistic experiences. After refinement of the synchronicity experience items through factor analysis, participants in Sample 2 were presented with 36 core synchronicity items, 6 analysis/interpretation items, as well as the other scales measuring strength of religious and spiritual beliefs.

Participants were affiliated with the University of Missouri and were recruited through a mass email announcement sent in a weekly newsletter to members of the university community. Participants were informed that there would be a random drawing from the participant pool for a total of 20 prizes of \$20 each. The survey was introduced with the following story:

Kelly is a 28-year-old female member of Alcoholics Anonymous. She was struggling with a great deal of anger and resentment focused on

* We thank Med Lundstrom for permission to use some of the items in their scale.

her father, an active alcoholic whom she has been with from the age of 10. She described their relationship as one of emotional turmoil and “dysfunctional.”

One day, as she was reading the text, *Alcoholics Anonymous*, she came across a passage that described alcoholics as sick people and how we would not treat a cancer patient or someone suffering from another serious medical illness with disdain and resentment. She suddenly had this “revelation” about her father and felt the anger and resentment melt into empathy and concern. She realized how he was suffering and ill from his alcoholism just as she had been suffering from the same illness: “I felt like all those feelings that I carried around my dad were gone. I guess I see this now as God removing my resentments.” She suddenly “felt a sense of peace.”

As she pondered these new feelings and perceptions her cell phone rang; it was her father calling. The two had been so alienated that she didn’t even think he knew her phone number. Surprisingly, he confessed to her how important she had been in his life, how sorry he was, how he cared about her and would do anything to help her. He wept as he spoke openly about their troubled relationship. Kelly later told the interviewer that the coincidence of her father calling just at the moment when her heart was opening up struck her as “amazing.” (Cameron, 2004)

Two data collections were conducted. A total of 760 people from both studies with a mean age of about 28.5 participated in them. Other demographic information from the samples is presented in Table 18.1.

Table 18.2 contains the highest scoring items including (1) thinking of someone and having that person call you; (2) analyzing the meaning of synchronicity; (3) knowing who is calling before picking up the phone; and (4) thinking of a song and then hearing it on the radio. These rankings make sense, given the high base rate of these events: receiving phone calls and hearing songs on the radio regularly take place in daily life; their high base rate increases the probability that some of these events will coincide with an individual’s thoughts. On the other hand, because they are higher frequency events *in general*, the co-occurrences are likely to trigger less emotion and a weaker drive for meaning. More surprising is the high frequency by which people analyze their synchronons.

Respondents often experienced synchronicity through unexpected meetings with others. Several of the highest frequency items included: (1) running into a friend in an out-of-the-way place; (2) experiencing an unexpected introduction that leads to the development of an opportunity; and (3) thinking of someone who unexpectedly appears.

Respondents reported that various needs were met by synchronistic experiences. These included (1) being prevented by obstacles from continuing on

Table 18.1. Weird Coincidence Survey

<i>Demographic Information</i>	<i>Sample 1*</i>	<i>Sample 2*</i>
Males	19.5%	17%
Females	80.5%	83%
White	90.8%	88.9%
African American	1.9%	1.5%
Asian	2.5%	3.1%
Hispanic/Latino	1.6%	1.2%
Biracial/Multiracial	2.5%	3.7%
Native American	<1%	1.5%
Protestant Christian	33.2%	38.5%
Agnostic/Atheist	19.3%	19.4%
Roman Catholic	16.9%	19.7%
Some college	50.8%	46.8%
Bachelor's/4-year degree	23%	28%
Grad/Professional degree	22%	20.6%

*Of those who reported demographic information

a less optimal path; (2) being at the right place at the right time to receive a career opportunity; (3) having a need met without having to do anything. These results suggest that synchronons can aid people in a practical way.

Table 18.3 contains ratings of various explanations for the occurrence of synchronons. Many respondents view synchronons as a means by which God communicates with them and these experiences as helping them to grow spiritually. Conversely, relatively few endorsed the statement that synchronicity is a result of probability or chance.

Based on the mean of all items of synchronistic experiences, individuals were classified into highest and lowest groups. These two groups were compared on self-ratings as being religious and spiritual. High scorers ranked themselves as more religious and more spiritual than low scorers. This difference was statistically significant.¹

¹ For self ranking for religiosity: $t(60) = -3.76, p < .001$; for self-ranking for spirituality: $t(60) = -6.45, p < .001$

Table 18.2. Weird Coincidence Survey: Highest Scored Items

<i>Item</i>	<i>Never</i>	<i>Seldom</i>	<i>Occasionally</i>	<i>Often</i>	<i>Very Frequently</i>
I think of calling someone, only to have that person unexpectedly call me. (<i>n</i> = 681, <i>M</i> = 3.16)	5.3%	21.0%	37.4%	25.1%	11.2%
After experiencing meaningful coincidence, I analyze the meaning of that experience. (<i>n</i> = 680, <i>M</i> = 3.07)	14.5%	20.7%	26.1%	20.4%	18.1%
When my phone rings, I know who is calling (without checking the cell phone screen or using personalized ring tones). (<i>n</i> = 681, <i>M</i> = 3.03)	10.3%	22.0%	31.9%	26.1%	9.7%
I think about a song and then hear it on the radio. (<i>n</i> = 680, <i>M</i> = 2.96)	10.9%	24.1%	34.7%	18.8%	11.5%
I run into a friend in an out-of-the-way place. (<i>n</i> = 681, <i>M</i> = 2.85)	7.0%	28.3%	41.3%	18.8%	4.6%
I am introduced to people who unexpectedly further my work/career/ education. (<i>n</i> = 679, <i>M</i> = 2.82)	10.7%	31.9%	28.8%	21.4%	6.9%
I think about someone and then that person unexpectedly drops by my house or office or passes me in the hall or street. (<i>n</i> = 678, <i>M</i> = 2.78)	10.4%	30.0%	37.0%	15.9%	6.3%
In attempting to reach a goal, obstacle after obstacle prevented me from continuing on a path, which I discovered later was better for me not to have taken. (<i>n</i> = 681, <i>M</i> = 2.77)	18.9%	23.9%	28.3%	18.9%	9.8%
I am late to get somewhere and find the way surprisingly open, so that I arrive just in time. (<i>n</i> = 679, <i>M</i> = 2.76)	7.8%	32.0%	40.5%	14.7%	4.7%

(continued)

Table 18.2. Continued

<i>Item</i>	<i>Never</i>	<i>Seldom</i>	<i>Occasionally</i>	<i>Often</i>	<i>Very Frequently</i>
I advance in my work/career/education through being at the “right place at the right time.” (<i>n</i> = 681, <i>M</i> = 2.71)	15.1%	32.6%	26.0%	18.8%	7.5%
I need something, and the need is met without my having to do anything. (<i>n</i> = 679, <i>M</i> = 2.69)	11.9%	32.3%	35.1%	15.9%	4.6%
When I am in a hurry, I find a parking spot right where I need it. (<i>n</i> = 681, <i>M</i> = 2.65)	13.7%	30.5%	38.0%	12.3%	5.4%
In a desperate search for information, the information amazingly shows up. (<i>n</i> = 680, <i>M</i> = 2.62)	14.0%	30.8%	36.4%	16.2%	2.5%
The same name or word has appeared several times in close proximity in different contexts. (<i>n</i> = 681, <i>M</i> = 2.61)	21.0%	28.6%	24.8%	19.4%	6.2%
I think of an idea and hear or see it on the radio, television, or Internet. (<i>n</i> = 681, <i>M</i> = 2.61)	17.3%	30.0%	32.6%	14.7%	5.4%

Notes: The highest scoring items (by means) of core synchronicity items across both surveys displayed as percentages in each ranking. *N* = 750 (some items were not answered by some participants).

In summary, the *Weird Coincidence Survey* suggests that meaningful coincidences occur commonly in many people’s lives, that they are often analyzed, can be useful, and are likely to be associated with spirituality. Interpretations vary. In the next section we discuss principles to consider when analyzing synchronons.

Interpreting Synchronons

The available data suggest that people commonly analyze their synchronons for personal meaning. Jung and others have felt that doing so can be clinically useful by facilitating introspection, insight, and behavior change (Hopke, 1997). In

Table 18.3. Weird Coincidence Survey

*Analysis/Interpretation Items**

Survey 1

<i>Item</i>	<i>Strongly Disagree</i>	<i>2</i>	<i>3</i>	<i>Strongly Agree</i>	<i>N/A</i>
I believe God speaks to us through meaningful coincidences. (<i>n</i> = 335)	18.2%	14.6%	24.8%	33.1%	9.3%
Meaningful coincidences help me grow spiritually. (<i>n</i> = 334)	15.5%	18.6%	28.4%	26.9%	10.5%
I believe fate works through meaningful coincidences. (<i>n</i> = 333)	17.1%	19.5%	29.4%	27.0%	6.9%
I feel that meaningful coincidences point to a connection between my internal and external worlds. (<i>n</i> = 336)	14.8%	21.4%	31.0%	22.3%	10.4%
I believe that human minds are interconnected. (<i>n</i> = 337)	16.3%	26.7%	31.2%	20.2%	5.6%
I believe coincidences can be explained by the laws of probability or chance. (<i>n</i> = 335)	18.2%	30.1%	23.3%	18.5%	9.9%

Survey 2 (All items: n = 344)

<i>Item</i>	<i>Strongly Disagree</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>Strongly Agree</i>
I believe God speaks to us through meaningful coincidences.	20.3%	12.2%	17.4%	20.6%	29.4%
I believe fate works through meaningful coincidences.	14.5%	14.8%	26.7%	25.6%	18.3%
Meaningful coincidences help me grow spiritually.	17.4%	16.3%	26.5%	19.8%	20.1%
I believe that human minds are interconnected.	12.8%	20.6%	28.2%	23.3%	15.1%
I feel that meaningful coincidences point to a connection between my internal and external worlds.	17.2%	14.8%	30.8%	23.8%	13.4%
I believe coincidences can be explained by the laws of probability or chance.	15.1%	23.3%	32.0%	18.0%	11.6%

*These results are split because the questions differed slightly between the two surveys.

this context, the usefulness of a synchron may emerge from the emotional drive ignited by observation of an external cue. On the other hand, coincidences can be used to empower paranoid ideation, ideas of reference, and magical thinking. Hence, if there is potential value in analyzing synchrons, it would be for those who have the capacity to objectively observe life events and consider carefully the relationship between external and internal events. Some people misuse synchrons in problematic ways: for example, “the fire began when I started to become angry,” and “the boss’s new secretary has the same birthday as my mother so that means I’m going to get promoted.” They are misinterpreting the relationship between their thoughts and external observations. The following example illustrates the difficulty in interpreting emotionally powerful coincidences during romance:

I really loved him, like no one else I have ever loved. We seemed to be able to communicate telepathically without being in the same room. When he was in the same building, I could feel his presence. I melted into his arms. His mother’s name was the same as my sister’s. His father’s name was the same as my brother’s. I could tell how he was feeling when we were apart. I told him these things because they seemed like evidence that our love was meant to be, that WE should last for all time. After about two years, our relationship was over. The coincidences were meaningful only for the time we were together. They did not mean forever.

Being in love seems to breed synchrons, but their meaning can be overly interpreted by a lover. The timeless quality of these synchrons encouraged this woman to believe that the love she was feeling stretched into eternity. Her lover acted differently. The interpretation of high impact synchrons must include the forces of ordinary reality. Do they both care about each other? Can they actually live together?

Consider the following synchron and its interpretation:

A 32-year-old man living in Boston had driven his car around that confusing city without incident for 4 years. No accidents, no break-ins. He considered himself lucky when he thought about it. He also had a few dates, but finally he was going to a restaurant in a busy part of the city with a woman he had met at the gym. He was excited. As he walked out of the restaurant back to his car (she had come in her own car), he noticed that his car door was wide open. He looked inside and found that his prized CD player had been stolen. Shaken by the break-in, he interpreted this coincidence as indicating he should stay away from this woman.

Did the meaning he ascribed to the event fit his need to disengage from the relationship? Did the break-in allow him to “break into” subtle information about this woman, information which told him to avoid her at all costs, information he kept out of his awareness because he was excited about the prospect of having a girlfriend? Or was he primarily displacing his ambivalent feelings about getting involved onto this ambiguous set of symbols? In other words, was his interpretation of this external event triggering the eruption of some ideas and feelings he was denying, or was he using the emotional charge to support his fear of being involved with any woman? Hence, the interpretation of the synchron is not about its “correctness,” but rather provides an opportunity to consider, appraise, and challenge the emotional content of the event elicited by the event.

MEANING

As with other potentially significant events, some meanings feel quite clear, and some do not. A person about whom you care touches your hand when you are feeling miserable. This touch is meaningful—“I am cared about.” However, a touch on the knee by an acquaintance of the opposite sex under neutral circumstances may have more ambiguous meaning—“Are there sexual implications here?” Being called abruptly into your boss’s office may trigger thoughts of anxious implications, even though there is little reason to believe so. In ambiguous circumstances, where the meaning is unclear, we tend to look for a pattern, an organized explanation, to reduce our anxiety. Human beings seem driven to find patterns in the apparent chaos around us (Brugger, 2001).

The specific meaning of a synchron is usually to be found in the mind of the synchroner, just as the potential meanings of dream symbols arise from the subjective experiences of the dreamer. Meaning and emotion are closely connected. Complex synchrons may be characterized by feelings of awe, wonder, amazement, and gratitude. These events contain more than information: they can touch the heart and nourish the spirit. They may provide the synchroner with a sense of contact with something greater, a sense of being guided by a vast intelligence or higher power. Synchrons are sometimes interpreted as a way that God speaks nonverbally to human beings (e.g., Gaulden, 2003). Strong emotions, however, can be associated with distorted meanings, like the sense of being extraordinarily special; that is, “the Universe speaks directly to me because I am very different from other people.” However, many others react in quite opposite manner: they believe that seeing meaning in coincidences suggests that they are psychotic, and try to hide their embarrassment by telling no one about these experiences.

PATTERN RECOGNITION AND CREATION

The brain seeks patterns in the vast rush of stimuli reaching it. Furthermore, human brains seem to reward themselves when they find coherence in chaos. (Notice the small sense of reward when you recognize something.) Pattern recognition precedes logic (Edelman, 2006, p. 64) both in evolution and in individual development, because we may need to react before we have had a chance to rationally assess a situation. This pattern-seeking tendency can cause the brain to find patterns that do not exist. The finding of patterns in random data accompanied by a “specific experience of an abnormal meaningfulness” has been called *apophenia* (Konrad, 1958) and characterizes some psychotic people (Brugger, 2001), as well as relatively normal ones.

Meaning is strongly influenced by personal beliefs. People tend to seek evidence to support their strongly held beliefs. They also tend to reject information that contradicts their cherished ones (Nickerson, 1998). For example, those who believe that synchronons may be useful will be more likely to find them useful than those who do not believe they may be useful. Believers will see more synchronons than those who do not believe in their usefulness. Skeptics will cry “apophenia,” while spiritual people will claim proof for interconnectedness.

Some psychotic people believe that they can predict the future and read other people’s minds, and may see many connections between their external and internal worlds (e.g., people on television are talking to me). Helping psychiatric patients make the distinction between helpful considerations of synchronons and distorted thinking can be quite useful, since they may believe that their synchronicity experiences are part of their psychiatric illness.

A 33-year-old photographer enjoyed finding similarities in apparently dissimilar or unrelated forms and events. His mind sometimes caught significance in coincidences and used the coincidences to inform the way he organized his photo shoots. Sometimes they helped him to title the shoots. He hesitatingly told his psychiatrist about them. His psychiatrist labeled them “synchronons,” letting the patient know that these were the subject of study by many people. The patient felt relieved to know that he was not the only one to have such experiences.

Social context influences the frequency with which people recognize and use synchronicity. Religious groups that believe their deity speaks to them through synchronons will encourage their members to watch for and report them to help solidify their religious beliefs. On the other hand, members of agnostic-skeptical groups will carefully avoid observing and discussing synchronons except as potential objects of derision.

Base rates

Base rates refer to the probability that a particular event or class of events will take place. For example, telephone calls from familiar people have high base rates. Each of us receives phone calls, primarily from people we know. Thinking of a person and having that person call is not so surprising since that person calls sometimes. But thinking of someone about whom you have not thought about for many months or years is a lower probability event. Probabilities correlate with emotion—the lower the probability the stronger the emotion is likely to be. Low base rate events rarely occur. They are more improbable. When they do occur, they are more likely to generate higher intensity emotion. For instance, the experience of feeling inexplicable physical pain while a loved one in a far-away place is suffering starts with a low base rate/ low probability event—the suffering of a loved one. To feel any intense pain is also usually associated with a low base rate. There is then even a lower probability that the two experiences will occur simultaneously; consequently, the discovery of such a co-occurrence is often experienced as a powerful emotion-provoking event. There appears to be a principle here: *the lower the base rate of one or both events as well as the likelihood of their co-occurrence, the higher the improbability and the greater the emotional response.*

Factors Influencing Interpretations of Synchrons

Using synchrons effectively begins with recognizing the primacy of subjective experience. For example, a 25-year-old man walks down the street in front of four people. Each person has a different reaction to him: (1) curiosity: he looks like my son; (2) attraction: I'd like to go out with him; (3) criticism: his clothes don't fit him; (4) suspicion: he looks like he is up to no good. Like this ambiguous event, synchrons vary in their potential interpretations. An outside viewer cannot know, until told, the subject's emotional/psychological reaction. The final judge of meaning lies with the synchroner, because the conjunction of events involve that person's concurrent inner experiences.

Using Synchronicity during Psychotherapy

Jung and his followers have employed synchronicity in their therapeutic work for much of the twentieth century. As described above, Jung's paradigmatic

scarab appeared on the window of the consulting room just as his psychotherapeutically blocked patient was describing her dream of the scarab. The event startled the woman into considering Jung's ideas about her difficulties (Jung, 1973). This "provocation by the unexpected" provides one of many means by which to use synchronicity during psychotherapy. Following is another resistance-melting psychotherapy synchronon:

Money was an important but unspoken issue. One month, the patient wrote 15 or 20 checks including one to her psychiatrist. Only the psychiatrist's check bounced! The patient began the next session with: "I didn't want to talk about money, but I guess I'm going to have to." Psychotherapy infuriated her because she had trouble spending money on herself, especially for psychotherapy. The chance occurrence of the bounced check made this subject unavoidable. (Bolen, 1979, p. 28)

Potential Value of Synchronons in Psychotherapy

Including discussions of synchronicity in psychotherapy can have several benefits. They may

- Reassure patients that it is okay to contemplate the personal meanings of coincidences.
- Strengthen the working alliance, because the therapist is receptive to something that is personally meaningful to the patient.
- Help some patients feel more connected to other people and their surroundings, which can engender feelings of gratitude and spirituality (Marlo and Kline, 1998, p. 22).
- Encourage patients to continue to examine subjective experiences.
- Help to negotiate life choices.
- Provide opportunities for introspection and reflection for the psychiatrist (Bolen, 1979).

Strengthen the Working Alliance

The therapist's knowledge of synchronicity can be helpful to patients in several ways. An unknown subset of patients report frequent synchronons. They come to treatment for the usual reasons, but hidden within their personal stories is the fear that synchronon awareness further indicates that they are "crazy." The Weird Coincidence Survey and the many anecdotes describing

similar variations on major themes can assist therapists in reassuring patients that they are indeed not crazy, and that these types of coincidental events are commonly reported. Of course, this applies for patients who have intact reality testing.

The following example shows how recognition by a psychiatrist of seeking synchronisms as within normal limits can provide support and relief to some patients.

A 37-year-old woman with bipolar disorder reported several synchronicity experiences while not manic, including hearing a song on the radio after she began thinking about it many years after last hearing or thinking about it or the singer. The reassurance that these were experiences reported by “normals” helped to reduce her anxiety about being crazy. Like the many reassurances psychiatrists can offer to people who are afraid of being psychotic, the normalizing of synchronisms increases patients’ self-confidence as well as trust in the expertise of the psychiatrist.

Synchronicity experiences cut across all human social classes, professional classes, and cultures (Peat, 1987). A paralleling between patient and therapist makes the basic humanity of both patient and therapist even more evident:

The patient is a married man who presents for treatment of depression related to his daughter’s serious medical illness. In initial consultation with the patient, it becomes clear that the patient and therapist share similar histories.

1. The therapist and the patient are of the same age.
2. They have been married for the same length of time.
3. They have daughters born within 1 month of one another.
4. Both the therapist’s and the patient’s daughters were born with severe congenital defects that were life-threatening.

The patient is very worried about his daughter’s long-term prognosis, and is struggling with making complicated medical decisions. The therapist is faced with similar decisions. As the therapist hears the story, she starts to cry. She reveals to the patient the remarkable coincidences in their children. The patient is moved by the therapist’s disclosure. He holds the therapist in very high esteem, as he understands that the therapist is not only an expert in this area, but also knows a considerable amount of his experience from her own.

Symbols to Be Understood

Some synchrons seem like poetry or dreams—symbols to be interpreted and used. The “bird-man” case described next provides an illustration:

The patient wanted to be a bird. The therapist elaborated on the wish by commenting on the patient’s desire for a strong mother bird to nourish him. The following session, the patient walked to the office window, and, for the first time in therapy, noticed a baby bird in a nest that had been perched in an adjacent window for several weeks. At that moment, the mother bird flew to the nest to give the baby bird a worm. This synchron had a poignancy which permitted the patient to more freely discuss his needs for nurturance. (Marlo and Kline, pp. 16–17)

Patients may report odd events in their lives, including synchrons that puzzle them. As with dreams and striking interpersonal encounters, patients call upon therapists to help them to decipher the meaning of these symbols.

The 22-year-old patient reported that she had begun dating a man the same age as her father, who was born on the same day in the same year as her father. They were talking about living together. What did the therapist think of this strange coincidence of birthdates? The patient believed that this coincidence meant the relationship was destined to be. One possible response by the therapist is to suggest that this coincidence might be a warning to the patient about not creating a father–daughter relationship with her new boyfriend. (Hopke, 1997)

The following case illustrates how events outside the office could be used to reflect what is going on in the office.

Her therapist was about to go on vacation, and the patient did not want to see him go. For the first time in many years, as she attempted to keep her appointment, her car engine started and then sputtered and died, sputtered, then died, several times. Finally, she got the car going—only to arrive 10 minutes late. As she apologized and began describing why she was late, she and her therapist began laughing. The “stop-start” car mirrored her feelings about the therapist’s leaving (Keutzer, 1989)

The patient in the following case often recognized meaningful coincidences. When the following event took place, he quickly reported it to his therapist.

The synchron for this patient was used to finally confront the grief of losing his wife.

I went to the grocery store last week. I get melancholy when I go there because I remember my deceased wife: that was one of our favorite things to do. I was standing in the shampoo aisle remembering being with her there. I have not let her go. I have not mourned my loss of her. I suddenly hear the sound of the Rolling Stones coming from somewhere. Not from the store speakers but from my pocket! My phone has to go through three steps before music plays. The key lock was on, which meant the phone could not be activated without me opening the phone which I had not done. It was the song “Mona,” which I have many times told friends that this song told the way I feel about her.

I recognized it as synchronicity. It was the Stones song about her. The coincidence meant that I was truly in touch with my feelings, because I could feel again the wonderful times I had with her in the store, and I could also feel my sad feelings in a pure form. The synchronicity helped give my life more meaning—the external environment validated what I was feeling. I feel more confident now to mourn the loss of my wife.

The freedom to tell his psychiatrist about this major synchron facilitated his embarking on his long-avoided grieving of the death of his wife.

Career and Personal Guidance

The planned happenstance notions of career counseling have a distinct place within psychotherapy. By expecting the unexpected, patients may learn to seize opportunities for which they had not planned. Only 15% of the outcome variance in psychotherapy can be ascribed to techniques themselves, with a full 40% being due to variables outside the therapist's office. (The other percentages are 15% for common factors and 30% for the working alliance—Lambert, 2003). Synchronicities can be one of many extra-therapeutic variables that influence a patient's life choices. Therapist support for examining the thoughts and feelings that the weird coincidences elicit can be useful to patients.

For months, I've been “searching” for a job, though I never felt motivated to do actual searching. I had a strong irrational pull to go to my ex-girlfriend's wedding. Through various complications, we left town late and missed the ceremony, to arrive in time for the reception. When we entered the room, everyone was already seated, and I saw an open

seat next to my advisor, the only person I knew there. During dinner, I mentioned my problems with employment, and he mentioned a research position that had just opened up and who I could contact to get the job. This opening then led to me being able to get into grad school against the odds, and to further my education from a position where it would otherwise have been impossible.

Patient's Problems Parallel the Therapist's Problems

Jungian therapists have observed that the therapist's problems often walk into their office. Some eagerly anticipate the next new patient to see what message to the therapist might be delivered (Bolen, 1979). Skeptics can argue probabilities based upon the limited number of problems human beings experience. Those therapists who overly interpret patient-therapist synchronies may find too many matches and lose objectivity. Nevertheless, the stories abound of connections between the psyches of the therapist and the patient.

The 53-year-old psychiatrist had come through a very rocky time with his wife. They had almost separated and divorced. The patient, whom he had seen for many years, was about the same age as his wife. Their names resembled each other: Maria and Mary. Their problems with their husbands seemed somewhat similar over the years. The patient's husband, like the therapist, appeared too caught up in work—"I gave at the office and have nothing to give at home," the therapist would often say. But his wife persisted. And there was something else going on. The patient tearfully told the therapist about the death of her mother—how her husband had not come to support her in the hospital, how he had left the next day on a skiing trip with his buddies. She had spent the day after her mother's death alone. The therapist heard the patient say, "He just does not get it," the very same phrase his own wife had been using to get his attention. He had done almost the same thing to his own wife—abandoned her the day after major surgery to go on a business trip. How glad he was to have made the transition to "getting it"! He could now better help the patient in her struggle with her husband. From his patient, he also understood more deeply how he had neglected—and harmed—his wife.

The parallels do not even have to be as profoundly emotional. Sometimes they can take a simple, pragmatic turn:

A psychiatrist had twisted her ankle. Her orthopedic surgeon put a light cast on her ankle and said it would be OK. Several months later, it was not

OK. A tennis friend suggested that the psychiatrist go to a physical therapist named Bart for rehabilitation. The therapist thought to herself that, because her tennis friend was 10 years older, her solution would not apply to herself. Shortly afterward, a patient of hers walked into her office, who had recovered from a sprained ankle. The patient was wearing the same tennis shoes that the therapist had worn when she twisted her ankle. “Well, hello” said the therapist to herself. She then asked the patient to whom she had gone for physical therapy. “To Bart,” was the reply! The therapist got the message, went to Bart and soon her ankle was healing.

Some patients are avid observers of synchronistic events. Can therapy be tuned to utilize this personal characteristic? Writers about synchronicity in the popular press have reported that many people seem to live their lives through synchronicity guidance. These reports suggest high degrees of emotional and spiritual satisfaction (Anderson, 1999). Should some of our patients who are highly tuned synchroners be encouraged to rely on this form of guidance increasingly in their lives? More research is required.

If the observations of this chapter can be more fully supported by other researchers, then we can place more confidence in “expecting the unexpected,” in believing in the promise of chance. Like psychotherapy, synchronicity relies upon establishing basic trust in the helper, which, in this case is completely unknown. Like psychotherapy, synchronicity can offer support, confirmation, useful information, insight, guidance, as well as some not so good or clear guidance. Attention to synchrons both within and outside of psychotherapy can, like many other subjects in therapy, provide a fulcrum around which change can be created. Developing an awareness of synchrons can increase one’s sense of connectedness and spirituality. Increased levels of spirituality are associated with better health outcomes.

Limitations and Potential Problems of Using Synchrons in Psychotherapy

Like other psychotherapeutic interventions, synchronicity analysis must be applied to serve the patient’s best interests. Patients with weak ego boundaries may be most likely to experience and report synchrons; they are also most likely to find some inner-outer connections that either support their grandiosity or provide evidence for plots against them. Some patients may become overly fascinated with synchrons and limit their focus on pressing interpersonal and work challenges (Keutzer, 1989). They may seek them in coincidences that deserve no analysis and elaborate excessively upon the meaning of others. An over-emphasis on leading a life guided by synchronicity may devalue

personal responsibility by requiring that decisions should be inspired primarily by synchron guidance. Ideally, synchronistic events and quotidian cause-effect reality should interact with each other in the minds of patients to illuminate and expand an understanding of each. Clearly, more research and clinical experience is required to know how best to use synchronicity in psychotherapy.

Future Implications

The surveys reported here, as well as the numerous stories illustrating the basic concepts, provide a foundation for future research into frequency, categories, and contexts. Some suggested research topics and areas are contained in Table 18.4.

This future science requires the development of firm, consensually agreed, validated definitions.

The Weird Coincidence Survey conflates two subcategories of events that may be called synchronicity. At this writing, we see two categories of events falling within this general idea. These categories are defined by the originating source of the coincidence and the means by which to validate the information. Is the source of validation primarily the subjective evaluation of the experimenter, or is the truth of the conclusion verifiable by external observation?

Table 18.4. Possible Synchronicity Research Projects

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- *Hospice*: Anecdotal reports from Hospice nurses suggest more synchrons. Define their frequency and character in this context and begin to analyze potential meanings.

 - *Psychotherapy*: Make predictions based on current issues the therapist is facing, and correlate with problems seen—a good situation for testing. Synchrons are likely to be increased because of greater access to internal states for both patient and therapist.

 - *Career counseling*: Collect synchrons and prospectively analyze the value of their interpretation and effect in career trajectories.

 - *High vs low synchronicity experiencers* based on various criteria: locus of control orientation, spirituality, social web (and other measures of interaction with their environments for both content and frequency)

 - *Subpopulations*: professional groups (business, religious, help-professionals, physicians by specialty); demographic groups by age, gender, location, population density; religious groups along fundamentalist to liberal continuum; countries and cultures

 - *Self-report instrument*: valid, reliable survey adaptable to various contexts and populations

By these criteria, psi (telepathy, clairvoyance, precognition) form one category: these events begin *outside* the mind of the observer, are picked up by the observer's mind, and can be externally validated.

Synchrons begin outside the mind of the observer and then trigger a memory of something similar within the mind of the observer. The connections between the events are usually ambiguous and have varying emotional charges. The ambiguity requires subjective interpretation. Validation then comes primarily from the subjective evaluation, and includes the synchron's practical application.

Also necessary for a future synchronicity science are reliable guidelines for interpreting synchrons. These guidelines need to address the difficult balance between personal, idiosyncratic, emotional, and attribution biases on the one hand, and the question whether the likelihood that certain remarkable, improbable intersections of similar events will present as objectively meaningful to third party observers.

Outside of medicine, what is the place of synchronicity in career development, management and administration, politics, religion, philosophy, anthropology, sociology, and physics? Meaningful coincidences may challenge us to re-examine the nature of reality.

REFERENCES

- Adrienne, C. (1998). *The purpose of your life*. New York: Eagle Brook.
- Anderson, K. (1999). *The coincidence file*. Blanford: London
- Begg, D. (2003). *Synchronicity: The promise of coincidence*. Wilmette, IL: Chiron Publishers.
- Beitman, B., & Yue D. (2004). *Learning psychotherapy*. New York: WW Norton.
- Beitman, B. D., & Viamontes G. L. (2007). Unconscious role induction: Implications for psychotherapy. *Psychiatric Annals*, 37, 259–268.
- Belitz, C., & Lundstrom, M. (1997). *The power of flow: Practical ways to transform your life with meaningful coincidence*. New York: Harmony Books.
- Belitz, C., & Lundstrom, M. (1998). *The power of flow: A practical way to transform your life with meaningful coincidence*. New York: Three Rivers Press.
- Bem D. J., & Honorton, C. (1994). Does psi exist? Replicable evidence for an anomalous process of information transfer. *Psychological Bulletin*, 115, 4–18.
- Betsworth, D. G., & Hansen, J.-I. C. (1996). The categorization of serendipitous career development events. *Journal of Career Assessment*, 4(1), 91–98.
- Bolen, J. S. (1979). *The Tao of psychology: Synchronicity and the self*. San Francisco, CA: Harper & Row
- Braud, W. (1983). Toward the quantitative assessment of “meaningful coincidence.” *Parapsychology Review*, 14, 5–10.

- Brown, D. J., & Sheldrake, R. (2001). The anticipation of telephone calls: A survey in California. *Journal of Parapsychology*, 65(2), 145–156.
- Bright, J. E., Pryor, R. G., & Harpham, L. (2005). The role of chance events in career decision making. *Journal of Vocational Behavior*, 66(3), 561–576.
- Brugger, P. (2001). From haunted brain to haunted science. In J. Houran and R. Lange (Eds.), *Hauntings and Poltergeists: Multidisciplinary Perspectives*. Jefferson, NC: McFarland, pp. 175–213.
- Clark M.W. (1996). *Synchronicity and post-structuralism*. Doctoral Dissertation. Quebec University. <http://web.ncf.ca/dy656/earthpages3/cv.htm>. AQ1
- Cameron, M. A. (2004). *Synchronicity and spiritual development in alcoholics anonymous: A phenomenological study*. St. Louis, MO: Saint Louis University.
- CIA. (1983). "Human Resource Exploitation Training Manual." Retrieved July 30, 2007, from <http://www.gwu.edu/~>. From <http://www.neverinournames.com/showDiary.do?diaryId=1905>
- Coughlin, P. (2008). Facilitating emotional health and well-being. In D. Monti & B. D. Beitman (Eds.), *Integrative psychiatry*. New York: Oxford University Press.
- Cousineau, P. (1997). *Soul moments*. Berkeley, CA: Conari Press.
- Dannenberg, H. (2004). A poetics of coincidence in narrative fiction. *Poetics Today*, 25, 299–436.
- Diaconis, P., & Mosteller, F. (1989). Methods for studying coincidences. *Journal of the American Statistical Association*, 84, 853–861.
- Edelman, G. M. (2006). *Second nature: Brain science and human knowledge*. New Haven, CT: Yale University Press.
- Eyre, R. (1997). *Spiritual serendipity*. New York: Simon & Schuster.
- Falk, R. (1989). Judgment of coincidences: Mine versus yours. *American Journal of Psychology*, 102, 477–493.
- Falk, R., & MacGregor, D. (1983). The surprisingness of coincidences. In P. Humphreys, O. Stevenson, & A. Vari, (Eds.), *Analyzing and aiding decision processes*. New York: North Hollywood, pp. 489–502.
- Feather, S., & Schmicker, M. (2005). *The gift: ESP, the extraordinary experiences of ordinary people*. New York: St. Martin's Press.
- Fetzer (1999). Group/National Institute on Aging Working Group. AQ1
- Gaulden, A. C. (2003). *Signs and wonders*. New York: Atria Books.
- Griffiths, T. L., & Tenenbaum, J. B. (2001). Randomness and coincidences: Reconciling intuition and probability theory. *Proceedings of the 23rd Annual Conference of the Cognitive Science Society*, pp. 370–375.
- Halberstam, Y., & Leventhal, J. (1997). *Small miracles*. Holbrook, MA: Adams Media Corporation.
- Hay, L. L. & friends, compiled and edited by Kramer, J. (2006). *The times of our lives: Extraordinary true stories of synchronicity, destiny, meaning, and purpose*. Carlsbad, CA: Hay House.
- Henry, J. (1993). Coincidence experience survey. *Journal of the Society for Psychological Research*, 59, 97–108.
- Hopcke, R. H. (1997). *There are no accidents*. New York: Penguin Putnam.

- Jung, C. G. (1973). *Synchronicity: An acausal connecting principle*. Princeton, NJ: Princeton University Press
- Kammerer, P. (1919). *Das gesetz der serie*. Stuttgart: Deutsches Verlags-Anstalt.
- Kautzer, C. S. (1989). Synchronicity awareness in psychotherapy. In F. S. Flach (Ed.), *Psychotherapy*. New York: WW Norton, pp. 159–169.
- Konrad, C. (1958). *Die beginnende Schizophrenie. Versuch einer Gestaltanalyse des Wahns*. Stuttgart: Thieme.
- Lambert, M. J., & Ogles, B. M. (2003). The efficacy and effectiveness of psychotherapy. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th edn.). New York: Wiley, pp. 139–193.
- Landon, M. K. (2001). *On receiving unexpected money: A theoretical and empirical investigation of anomalous mind–matter interactions within archetypal fields*. Unpublished doctoral dissertation. San Francisco: California Institute of Integral Studies.
- Lilly, J. (1967). *Programming and metaprogramming the human biocomputer*. New York: Julian Press.
- Main, R. (2007). *Revelations of chance*. Albany, NY: State University of New York.
- Mann, B. S., & Jaye, C. (2007). “Are we one body?” Body boundaries in telesomatic experiences. *Anthropology & Medicine*, 14(2), 183–195.
- Mansfield, V. (1995). *Synchronicity, science and soulmaking*. Chicago, IL: Open Court Pub.
- Marlo, H., & Kline, J. S. (1998). Synchronicity and psychotherapy: Unconscious communication in the psychotherapeutic relationship. *Psychotherapy: Theory, Research, Practice, and Training*, 35, 13–22.
- Mayer, L. M. (2007). *Extraordinary knowing*. New York: Bantam Books
- Meyer, M. B. (1989). *Role of personality and cognitive variables in the reporting of experienced meaningful coincidences or “synchronicity.”* Unpublished doctoral dissertation, Saybrook Institute, California.
- Mayo, E. (1933). *The human problems of an industrial civilization*. New York: MacMillan.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 175–220.
- Parker, A., & Brusewitz, G. (2003). A compendium of evidence for psi. *European Journal of Parapsychology*, 18, 33–51.
- Peat, D. (1987). *The bridge between matter and mind*. New York: Random House
- Radin, D. (2006). *Entangled minds: Extrasensory experiences in a quantum reality*. New York: Simon and Schuster
- Redfield, J., & Adrienne, C. (1995). *The celestine prophecy: An experiential guide*. New York: Warne.
- Rhine-Feather, S., & Schmicker, M. (2005). *The gift*. New York: Random House
- Ryback, D., & Sweitzer, L. (1988). *Dreams that come true*. New York: Ivy Books.
- Schick, T. S., & Vaughn, L. (1995). *How to think about weird things*. Mountain View, CA: Mayfield.

- Schwartz, B. E. (1967). Possible telesomatic reactions. *Journal of Med Soc N J.*, 64(11), 600–603.
- Schwartz, B. E. (1973). Clinical studies of telesomatic reactions. *Medical Times*, 10, 171–184.
- Sheldrake, R. (2000). Telepathic telephone calls: Two surveys. *Journal of the Society for Psychical Research*, 64(861), 224–232.
- Sheldrake, R. (2003). *The sense of being stared at*. New York: Crown.
- Sheldrake, R., & Smart, P. (2003a). Experimental tests for telephone telepathy. *Journal of the Society for Psychical Research*, 67(872), 184–199.
- Sheldrake, R., & Smart, P. (2003b). Videotaped experiments on telephone telepathy. *Journal of Parapsychology*, 67(1), 147–166.
- Sheldrake, R., & Smart, P. (2005). Testing for telepathy in connection with e-mails. *Perceptual and Motor Skills*, 101(3), 771–786.
- Spangler, D. (1996). *Everyday miracles: The inner art of manifestation*. New York: Bantam Books.
- Storm, L. (1999). Synchronicity, causality, and acausality. *Journal of Parapsychology*, 63(3), 247–269.
- Tarnas, R. (2006). *Cosmos and psyche*. New York: Viking.
- Viamontes, G. I. & Beitman, B.D.(2007). Mapping the unconscious in the brain. *Psychiatric Annals*, 37, 259–268.
- Wampold, B. (2001) *The great psychotherapy debate*. Mahwah, N.J.: Erlbaum.
- Watkins, S. M. (2005). *What a coincidence! The wow factor in synchronicity and what it means in everyday life*. Needham, MA: Moment Point Press.
- Weil, A. T. (1972). *The natural mind*. Boston, MA: Houghton-Mifflin.
- Wilson, E. O. (1975) *Sociobiology, the new synthesis*. Cambridge, MS: Belknap.

Appendix 1

The key to understanding this problem is to think about the chances of *no two people* sharing a birthday: what are the chances that Person 1 has a different birthday from Person 2, *and* that Person 3 has a different birthday again, *and* Person 4, etc. Each time another person is added to the room, it becomes less and less likely that their birthday is not already taken by someone else. If one has a sample space of n people, the first person has 365 possible birthdays to choose from. The second person would have only 364, the third would have 363, and so on. This would be compared with any person being able to have any birthday with no restrictions (in short, all people have 365 possible birthdates.)

AQ1: Please provide the authors initials.

AQ2: Please provide complete reference details.

