SYNCHRONICITY AND PSI: HOW ARE THEY RELATED?

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ABSTRACT

Carl Jung's interest in parapsychology was kindled by personal psychic experiences, especially an anomalous banging sound emanating from a bookcase while he was in the company of Sigmund Freud. He also had an interest in Spiritualism and communicated extensively with J. B. Rhine about experimental parapsychology. He credits parapsychology with influencing the development of his theory of synchronicity. The purpose of this paper is to compare and contrast synchronicity experiences with psi experiences. Jung defined synchronicity as "the occurrence of a meaningful coincidence in time" (italics added). Re time, Jung generally viewed the elements of a synchronicity as simultaneous, but he did allow for a temporal relationship akin to precognition. With respect to meaning, Jung insisted that to be synchronicities, coincidences must reflect the activation of "archetypes", primal themes of good an evil inherited from our ancestors, and be of psychodynamic relevance to the experiencer. Psi experiences are not so restricted. Braude has criticized Jung for erroneously claiming that events can have inherent meaning. This problem can be overcome by saying that events differ in their capacity to evoke meaning in a person. Which events have this capacity must be defined by consensus among Jungian scholars. Jung postulated that one element of a synchronicity must be an experience and the other an objective event; this would seem to exclude pure telepathic experiences as examples of synchronicity. Synchronicity is unpredictable in the same sense that ESP card-guessing subjects cannot reliably predict whether any given response would be a hit. Jung performed an astrology experiment, finding that married couples shared astrological signs relevant to marriage more frequently than chance, but said that such statistical significance was not necessary; parapsychologists would not be so generous. Synchronicity cannot be the consequence of volition, which would seem to preclude most laboratory psi results; however, one can solve this problem by postulating that volition only accompanies psi in experiments. Mansfield, who sees no overlap between psi and synchronicity, subsumes psi under Jung's principal of "general acausal orderliness". At the level of physical theory, Jung subsumed synchronicity under quantum mechanics as interpreted by Pauli, and also saw correspondences to relativity theory. Compared to theories of psi, synchronicity theory comes closed to Stanford's conformance behavior model, but Stanford insists conformance is causal. The controversy over whether it makes sense to consider synchronicity acausal can be viewed as a semantic issue related to different definitions of causality being implicitly adopted by Jung and his critics. So long as synchronicity can be considered to some degree nomothetic, it can be tested empirically. At the physical level, testing can be considered isomorphic to tests of related psi theories such as the observational theories. Assuming a list of archetypes and evoking circumstances can be gleaned from Jung's writings, the theory can be tested psychologically by comparing test results under synchronicity conducive and non-conducive conditions. Jung suggested that evoking trance-like states and a sense of the miraculous can evoke archetypes. One might also explore manipulation of the archetypal content of ESP targets.

INTRODUCTION

Because parapsychologists populate a "borderland" area of science, we have always been grateful when eminent scientists and scholars from other fields reveal a positive interest in the subject, even more so if they make constructive intellectual contributions to it. One such eminent scholar active during the early to midtwentieth century was the Swiss psychiatrist Carl Jung. As noted in an excellent review by Roderick Main (1997), Jung's interest in parapsychology was kindled by personal psychic experiences. Perhaps the most famous of these involved Jung's mentor, Sigmund Freud, who at the time was skeptical of psychic phenomena. During an argument about parapsychology, a loud sound, like an explosion, emanated from Freud's bookcase (Jung, 1963). When Freud denied that this anomalous event was paranormal, Jung predicted that it would immediately reoccur, and right on cue, it did. However, when the same thing happened to Freud again when Jung was not present, Freud discounted the original experience as being paranormal (McGuire, 1994). It was not until many years later that he expressed acceptance of psychic phenomena. His continuing difference with Jung on this matter has been cited as one of the reasons for their breakup (Main, 1997).

Jung also was very interested in Spiritualist mediumship and attended a number of seances, including one with the famous Rudi Schneider during which anomalous physical effects were observed (Charet, 1993). Although he found mediumship fascinating from a psychological point of view, by virtue of the dissociated states in which the mediums entered, he did not at the time consider the attendant phenomena to necessarily be paranormal (Jung, 1902/1969). Later, however, he experienced anomalous phenomena in a guest house in Britain where he had spent several nights alone and, as he subsequently learned, was reported to be haunted (Jung, 1950/1969). One class of phenomena, dripping water, he was unable to account for normally. Jung credits his experiences with psychic phenomena as helping him develop his psychological theory, especially the concept of synchronicity (Main, 1997).

Jung became acquainted with experimental parapsychology through the writings of J. B. Rhine, who was responsible for moving the field from its emphasis on spontaneous ("real-world") experiences, mediumship, and the question of post-mortem survival to controlled and statistically evaluated laboratory experiments with ordinary people, such as college students (Mauskopf & McVaugh, 1980). Over a period of about 25 years beginning in 1934, Jung and Rhine exchanged a series of letters that were uniformly friendly in tone and indicated mutual admiration. Jung accepted Rhine's evidence for the validity of psychic processes and also considered these data as support for his theory of synchronicity. Jung even proposed to Rhine an experiment on retrocognition (psychic knowledge of past events), which Rhine tactfully rejected, pointing out that retrocognition cannot be differentiated operationally from contemporary psychic awareness. Rhine nonetheless welcomed Jung's support and repeatedly urged him to publish his thoughts in English. On the other hand, the two men agreed to disagree on whether the mechanism for psi was causal or acausal, with Jung, of course, defending acausality. However, Rhine's defense of causality was far from dogmatic.

Synchronicity

Among Jung's many theoretical ideas, those of most direct relevance to parapsychology concern his concept of synchronicity. His most extensive presentation of these ideas was an essay entitled "Synchronicity: An acausal connecting principle" (Jung, 1952/1969). A shorter, but according to Main (1997), a more lucid presentation of the theory was published one year earlier (Jung, 1951/1969).

A famous example of a synchronistic event occurred during a therapy session with one of Jung's patients: My example concerns a young woman patient who, in spite of efforts made on both sides, proved to be psychologically inaccessible. The difficulty lay in the fact that she always knew better about everything....After several fruitless attempts to sweeten her rationalism with a somewhat more human understanding, I had to confine myself to the hope that something unexpected and irrational would turn up....I was sitting opposite her one day, with my back to the window, listening to her flow of rhetoric. She had had an impressive dream the night before, in which someone had given her a golden scarab — a costly piece of jewellery. While she was still telling me this dream, I heard something behind me gently tapping on the window. I turned round and saw that it was a fairly large flying insect that was knocking against the window-pane....I opened the window immediately and caught the insect in the air as it flew in. It was a scarabaeid beetle...whose gold-green colour most nearly resembles that of a golden scarab. I handed the beetle to my patient with the words, "Here is your scarab." This experience punctured the desired hole in her rationalism and broke the ice of her intellectual resistance. The treatment could now be continued with satisfactory results. (Jung, 1951/1969, pp. 525-526)

The best simple definition of synchronistic events I could find was appended to an English translation of Jung's 1952 essay: "the occurrence of *a meaningful coincidence in time*" (Jung, 1955, p. 144). There are two key words in this definition — *time* and *meaning* — each of which needs elaboration.

Time. With reference to time, Jung appears to insist that the corresponding events must be simultaneous. This creates some conceptual difficulties, because he clearly wants to include correspondences that parapsychologists would label as precognitive, that is, events in which the relevant external event followed the experience in time. His solution can be found in the addendum to his 1952 essay:

[Synchronicity] can take three forms:

a The coincidence of a certain psychic content with a corresponding objective process which is perceived to take place simultaneously.

b The coincidence of a subjective psychic state with a phantasm (dream or vision) which later turns out to be a more or less faithful reflection of a "synchronistic", objective event that took place more or less simultaneously, but at a distance.

c The same, except that the event perceived takes place in the future and is represented in the present only by a phantasm that corresponds to it.

Whereas in the first case an objective event coincides with a subjective content, the synchronicity in the other two cases can only be verified subsequently, though the synchronistic event as such is formed by the coincidence of a neutral psychic state with a phantasm... (Jung, 1955, pp. 144-145)

Main (1997) points out a number of problems with this formulation, one of which is identifying what constitutes the "neutral objective state" in particular instances. I agree with Main's criticisms, but I will not discuss them further because they are not relevant to the main issue at hand. The point to note is that the correspondence between the subjective experience and the relevant objective event (whether or not the latter is, technically speaking, a component of the synchronicity) need *not* be simultaneous.

A second important point to be noted from Jung's description above is that in all three instances one of the two corresponding events is a subjective experience or process. In fact, if (b) and (c) are to be taken literally, in these cases one of the events must be a subjective *experience* exclusively, although I am not inclined to take him that literally here. Also, by "objective" I take him to mean external, which would not allow *both* components of the synchronicity to be subjective experiences or processes.

Meaning. Jung's definition of synchronicity is much more theory driven than parapsychologists' definition of psi, and this becomes most evident when we consider the second key term in Jung's definition of synchronicity, meaning. In Jung's theory, synchronistic correspondences are expressions of, and derive their meaning from, *archetypes*. The latter, which Jung equates to instincts (Jung, 1936/1969, p. 44), are primal themes, such as good and evil, that we inherited from our ancestors and are universally present in all human beings, where they reside in what Jung calls the *collective unconscious*. To count as synchronistic, a correspondence must be meaningful in Jung's sense of the term.

Stephen Braude (1979) has argued that it is nonsensical to suggest that either correspondences or the events that comprise them are inherently meaningful or non-meaningful. Meaning, Braude maintains, is imposed on events by the persons who observe them. I agree with Braude's point, but I believe its damage to Jung's theory can be mitigated through a subtle change in wording. Instead of saying that objective events are meaningful (or non-meaningful), we can say that they differ in their *capacity to evoke a sense of meaning or meaningfulness in the observer*. (This capacity in turn is governed by the archetypes, which are the ultimate source of meaning, as noted above.)

But how can we decide whether a correspondence has the capacity to evoke meaning? Isn't that a subjective judgment, and, if so, doesn't that belie the objectivity of the capacity? I think the answer is no, but to defend that answer I must appeal to the principle of *consensual validation*. By this I mean that the capacity (or lack of capacity) to evoke meaning is validated by a group of qualified evaluators, which in this case would consist of persons versed in Jungian thought. (I would want to add as a further condition that the evaluators agree on *what* the meaning is.)

There is nothing ad hoc about my appeal to consensual validation, because this is how we make decisions about objective reality all the time. I believe that the desk I am sitting at is real because I am confident that anyone else confronting the desk will have the same visual, tactile, and (if they tap on it) auditory experiences that I do. If others did not report these experiences, I would begin to question my judgment that the desk is really there. Such differences in sensory experience are precisely what often happens when someone claims to see a ghost. The resulting lack of full consensual validation is one of the main reasons apparitions are often interpreted by parapsychologists as hallucinatory.

Clearly, only a few among the almost infinite number of possible correspondences between psychic states and external events that one encounters in a lifetime would strike anyone as meaningful, even using the more mundane definition of meaningful. This subsample can then provide a meaningful (again in the mundane sense) set of correspondences at which to direct theoretical attention.

In fact, Braude's objection applies just as much to parapsychology as to synchronicity theory. Consider guessing through a deck of ESP cards. Out of all the possible patterns of matches between the guess and the target card, the only ones parapsychologists consider meaningful are those in which the matched symbols on a certain proportion of trials are identical, or bear some other pre-specified kind of "non-random" relationship to one another. This criterion of meaningfulness is imposed on the data by the parapsychologist, but in a way that is agreed upon by the qualified members of the community.

Psi and Synchronicity

During the remainder of this paper, I intend to address the relationship between synchronicity and psi by asking the following two questions:

(1) To what extent are the correspondences labeled by Jung as sychronistic the same as the psychic events studied by parapsychologists?

(2) If there is some overlap in the correspondences addressed by Jung and parapsychologists, how do the interpretations of these overlapping correspondences by the respective theorists compare?

THE CORRESPONDENCES

Subjectivity

Both Jung and the parapsychologists maintain that at least one element of the relevant correspondences in nature must be subjective. Although parapsychologists allow that both elements of the correspondence may be subjective, Jung says that one element of a synchronicity must be objective. Thus *telepathic* correspondences in parapsychology would *not* seem to qualify as synchronicities.

Time

Parapsychologists do not require that the corresponding events be simultaneous. Jung says the same about synchronicities; as discussed above, his decision to reformulate such correspondences as completely intra-psychic is a theoretical move not relevant to defining the correspondences at the purely descriptive level. This is also why I do not think this move allows us to consider telepathic exchanges as synchronistic.

Predictability and Statistical Significance

Physicist Victor Mansfield (1996) points out that synchronistic correspondences are "irregular", by which he apparently means that one cannot predict with certainty whether or not they will occur. This conclusion applies just as much to psi as to synchronicities. It is most obviously true for spontaneous cases of psi; no one can predict when such an experience might occur, including the person who has the experience. Although some repeatability has been demonstrated in laboratory psi experiments, it is statistical in nature: significant results appear more frequently than expected by chance, but not every time. Moreover, we are not very good at predicting when it will occur and when it will not. In other words, there is no "repeatability on demand" in parapsychology. It is not entirely clear whether Jung would accept statistical repeatability as a possible characteristic of synchronicities, but his discussions of Rhine's research lead me to believe that he would.

The one experiment on synchronicity that Jung reported himself deserves mention because it illustrates a curious conception he had about the role of statistics in demonstrating synchronicity. The experiment involved astrology (Jung, 1952/1969). Jung collected 483 pairs of horoscopes from married couples. He arbitrarily divided the horoscopes into three groups of unequal sizes. He noted retrospectively that the most frequently occurring conjunction of astrological signs for the paired horoscopes in each of the three

samples, although different from one another, were ones predicted by astrologers to be characteristic of married couples. If we can assume that these are the *only* three of the 50 possible conjunctions that meet this criterion (this point is not clear from the report), then this outcome is highly significant statistically, even if one takes into account that the result was not hypothesized in advance. However, Jung is almost apologetic about this significance, and he clearly implies that the correspondence would have been meaningful, that is, a genuine synchronicity, even if the outcome had *not* been significant. (Note that it still might meet the standard of consensual validation discussed above.) This is a marked departure from the standards operative in parapsychology, which relies heavily on statistics to validate its evidence. Parapsychologists adopt this stance because they do not want to make the mistake of affirming correspondences that are not really there. They would never accept as real a correspondence that demonstrably falls within the bounds of chance (or the null hypothesis). Even using my more inclusive definition of psi, only correspondences that *might* be of non-chance character (such as good spontaneous cases) would fall in this category.

Volition

Mansfield (1996, p. 12) proposes that "any parapsychological effect that depends upon volition, upon the subject's intent, must differ from synchronicity". It is true that the examples Jung uses consistently conform to Mansfield's proposal. The one notable exception seems to be Jung's classification of Rhine's ESP results as synchronistic; Rhine's card-guessing subjects were consciously intending to demonstrate ESP during the test. Mansfield considers this endorsement to represent a contradiction in Jung's thinking. I disagree. Whereas Jung clearly states that synchronicities are not *caused* by a subject's conscious intent (Jung, 1960/1975, p. 541), this does not rule out the possibility that synchronicities might *accompany* conscious intent. This is what I think Jung would say happens in card guessing tests. Something about the situation in a card-guessing task can, under the right circumstances, activate an archetype and thus lead to a true synchronicity manifesting in the test itself. More on this in the next section.

Meaning

Jung maintains that synchronicities are meaningful in a very specific sense, namely that their meaning reflects the activation of an archetype. This kind of meaning literally becomes part of the definition of a synchronicity. As noted above, parapsychologists do not define psi in anything close to such a theoretical manner. Those who maintain that at least some psychic correspondences are paranormal rarely make any theoretical commitment beyond that.

To what extent might ordinary psi correspondences be susceptible to archetypal interpretation? Mansfield (1995, 1996) criticizes Jung for citing Rhine's card guessing results as examples of synchronicity because he (Mansfield) does not find an archetypal interpretation of them plausible. However, I suspect Jung would disagree. Specifically, Jung interprets the decline effect in Rhine's data — the tendency of scores to drop from highly positive to chance during a lengthy session — as evidence that the early success was accompanied by emotion or affectivity, which dissipated as the test proceeded. This emotion is seen as indirect evidence that an archetype had been activated (Jung, 1951/1969, 1960/1975). Moreover, although the standard ESP card symbols — star, circle, cross, square, wavy lines — were originally selected as being emotionally neutral, they would seem to have archetypal significance. For example, the cross has meaning in Christianity and some magical traditions, and the circle has significance in many Eastern traditions — the mandala, for example (Jung, 1969). Nonetheless, card guessing results are probably the hardest of all psychic correspondences to square with Jung's synchronicity theory. Spontaneous cases are invariably much richer and offer much more opportunity for psychodynamic interpretations. Some survey data suggest that a disproportionately high percentage of spontaneous psi experiences concern emotional themes (e.g., Schouten, 1979), although random survey data suggest otherwise (Palmer, 1979) and the preponderance of emotional cases in Schouten's surveys could be a reporting artifact.

Mansfield's (1996) positive proposal is that psi be considered a special case of what Jung called *general acausal orderedness* (GAO). Von Franz (1992, p. 267) defines GAO as a "regular omnipresent just-so-ness, such as for instance, the specific speed of light, the quantization of energy, the time-rate of radioactive decay, or any other constant in nature". This definition suggests to me that Jung intended GAO to refer to first-order physical laws of nature that cannot be reduced to some other law or cause. Jung (1952/1969) considered synchronicities to be a special case of GAO.

Mansfield's suggestion is congenial to parapsychologists, because we too consider psi to reflect the operation of an underlying natural law or laws. We resent it very much when psi is labeled as "supernatural" or "miracles". In fact, this lawfulness is inherent in the very definition of parapsychology. Note, however, that the classification of psi as GAO does not preclude it also having some overlap with synchronicity.

Conclusion

Based on the previous discussion, it can be concluded that there is indeed some overlap between synchronistic and psychic correspondences, but the overlap is not total. There are some synchronistic correspondences that are not psychic, and there are some psychic correspondences that are not synchronistic. The degree of overlap is difficult to estimate, and it is influenced by what assumptions are made about the two types of correspondences.

As noted previously, insofar as we are concerned about the *subject matter* of parapsychology and Jungian analysis, it is appropriate to include events that *might be* synchronistic or psychic (in the sense of paranormal) even though they are not demonstrably either one. This allows the inclusion of many spontaneous cases, thereby dramatically increasing the number of events of interest. It would also be expected to increase the degree of overlap between synchronistic and psychic correspondences as defined in this more objective manner.

Foremost among anomalous correspondences that are *psychic but not synchronistic* are those in which at least one element is psychological but for which an archetypal interpretation is sufficiently implausible to be ruled out a priori. The size of this population depends a great deal on how liberally the archetype hypothesis is applied. If archetypes are considered to be evoked by a wide range of circumstances, this population could become quite small. Second, cases of telepathy would seem to fall in this category. If we were to accept Mansfield's application of his volition restriction, most, but not all, laboratory evidence of psi would qualify. However, as I argued previously, I don't believe this application is justified so long as it is reasonable to suppose that accompanying psychological events might trigger a correspondence.

Foremost among anomalous correspondences that are *synchronistic but not psychic* are those involving at least one psychological element and for which an archetypal interpretation is plausible, but that demonstrably do *not* meet the criterion of statistical significance. An example here might be *some* so-called *Barnum statements* that psychics often give in their readings when nothing "good" seems to be coming through. These are statements that are so vague and general that they would apply to most people. "You have had pain in your life" is an example of a Barnum statement.

Finally, there exists in principle a class of anomalous correspondences that are neither synchronistic nor psychic: those that lack a mental component. I say "in principle" because I am hard pressed to think of a real example of this sort that has actually been put forth as paranormal (although I suspect readers better versed in these sorts of things than I am will not have this difficulty). A hypothetical example of an astrological nature would be the concordance of some pattern of stellar conditions and some purely physical event such as an earthquake.

THE INTERPRETATIONS

Now it is time to consider the interpretations offered by Jung and parapsychologists respectively to explain the overlapping correspondences that fall in the domain of both. Let me begin by reinforcing the

point that although the distinction between events and their interpretation is useful, it is not absolute. This is because the definitions of both psychic and synchronistic correspondences are to some degree theory driven, although more so in the case of synchronicities.

Jung's Theory of Synchronicity

Jung's theory of synchronicity has both psychological and physical aspects. The psychological aspect is closely identified with the concept of the archetype. It is archetypes that "provide the shared meaning by virtue of which two events are considered to be in a relationship of synchronicity" (Main, 1997, p. 20). Archetypes thus provide the psychodynamic element to the theory. A more detailed analysis of their role is not necessary for the purposes of this paper.

The physical aspects of the theory draw heavily on modern (post-Newtonian) physics, especially quantum mechanics (QM). Jung's ideas about this were heavily influenced by his long association with the eminent physicist Wolfgang Pauli (Atmanspacher & Primas, 1997), who accepted Jung's synchronicity theory.

Jung's approach to the relationship between synchronicity and QM is to draw analogies between them, or, more precisely, between the processes of the psyche and the behavior of matter and energy at the subatomic level. "...we are concerned first and foremost", he writes, "to establish certain analogies, and no more than that" (Jung, 1947/1969, p. 234). Two such analogies are worthy of note:

1) Both radioactive decay and synchronicity are *probabilistic*, and hence (according to Jung) acausal (Jung, 1952, p. 512).

2) The *complementarity* of waves and particles in QM is analogous to the broader complementarity of causality and acausality in Jung's theory (Jung, 1952, p. 514).

Jung also refers to the fundamental principle in QM commonly labeled as *collapse of the state vector*. He writes, "Physics has demonstrated...that in the realm of atomic magnitudes an *observer* [italics added] is postulated in objective reality....This means that a subjective element attaches to the physicist's world picture..." (Jung, 1947/1969, p. 230). In this passage, Jung appears to adopt what is in fact a minority viewpoint among physicists, namely that the consciousness of an observer is what collapses the state vector, thereby causing an undetermined state of a wave or particle to be determined. (The majority view is that the physical process of measurement causes the collapse.) Jung thus sees modern physics as supporting his view that there is a pervasive psychological component to objective reality.

Finally, Jung draws from Einstein's theory of relativity the notion that space and time are "relative" (Main, 1997), and he sees this relativity as particularly characteristic of the realm of the psyche. He also draws heavily on this principle to explain psychic phenomena such as clairvoyance.

Acausality. A fundamental principle of Jung's theory of synchronicity is that synchronistic correspondences are *acausal*, as opposed to causal. In fact, acausality goes well beyond synchronicity in Jung's thinking. Recall that general acausal orderedness (GAO) encompasses many of the fundamental laws of nature, and Jung explicitly characterizes QM as acausal.

Jung's proposal of acausality has been roundly criticized by parapsychologists (Beloff, 1977; Braude, 1979). These two critics both note that Jung uses the term causality in the narrow sense of Newtonian physics. This is the "billiard ball" kind of causality that requires the direct action of a "cause" upon an "effect". However, most philosophers (and I suspect most other people nowadays) use the term in the broader, Humean sense of a *contingency* between two events. As Beloff (1977, p. 577) puts it: "Let A and B be two different events, then if it *is* the case that B would not have occurred *but* for A, i.e., if A was necessary for the occurrence of B, we are justified in calling A the cause of B regardless of the temporal, spatial, material, or energetic relationships that may hold as between these two events". Thus, the controversy centers on how one prefers to use the term cause.

Jung seems to agree that synchronicities are causal in this broader, Humean sense when he writes, "But as soon as [one] perceives the archetypal background he is tempted to trace the mutual assimilation of independent psychic and physical processes back to a (causal) effect of the archetype, and thus to overlook the fact that they are merely *contingent* [italics added]" (Jung 1952/1969, p. 516). "Contingent" means causal in the Humean sense. In this sense, synchronicities are causal virtually by definition.

However, I find indications in Jung's writings that synchronicities are causal in a somewhat narrower sense of cause than the Humean. Consider, for example, when Jung (1952/1969, p. 481) writes, "The *effective...agents* [italics added] in the unconscious are the archetypes". It is true that the relationship between A and B, the two elements of a synchronicity, is merely contingent; there is no direct action of one upon the other. However, this does not rule out a third factor, C, which *does* have a direct action on A and B, in such a way that they come to coincide. C, of course, is the archetype. One need not assume there is any transmission or transfer of energy, so synchronicities may not be causal in the *strongest* Newtonian sense either.

I am aware that at other places Jung states quite forcefully that the role of the archetypes should not be seen as causal in the somewhat narrower sense; a good example is the quote from two paragraphs above. My point is that Jung at times writes about archetypes as if they are causal agents, even though when the matter is at the focus of his attention he denies it.

A possible explanation of Jung's apparently conflicted attitude is suggested by the following passage: "We are, however, driven to some such assumption if we are not to regress to a *magical causality* and ascribe to the psyche a power that far exceeds its empirical range of action" (Jung 1952/1969, p. 483).¹ Note the use of the word *regress*. Later on the same page, Jung writes in equally pejorative tones, "the *primitive* [italics added] mentality has always explained synchronicity as magical causality right down to our own day..." Could it be that Jung was afraid his ideas might become associated with ones that are considered highly objectionable by his broader culture, namely, magic? ² (I am referring here not to stage magic but to what I will call natural magic).

Such a concern would be very understandable to many parapsychologists. A prominent critic of parapsychology not too long ago wrote a book entitled *Parapsychology: Science or Magic?* in which he attempted to denigrate parapsychology in part by linking it to popular notions of natural magic (Alcock, 1981). This rhetorical device can be effective insofar as magic evokes in the reader's mind associations such as witchcraft and Satanism. Although we should all strive to resist efforts to associate our theories to the excess baggage of popular occultism, the fact remains that the kinds of processes both parapsychologists and Jungians talk about, whether they be seen as causal or acausal, bear some resemblance to the underlying mechanisms of natural magic. It is true that Jung depersonalizes synchronicities by attributing them to the collective unconscious rather than the personal unconscious, and this is where the difference from magic is perhaps most evident. But putting the archetypes in the collective unconscious in no way precludes them from acting causally.

Theories of Psi

I divide theories of psi into two categories that I call *transmission models* and *correspondence models*. Transmission models assume that information in the form of a signal is carried from a source to a receiver over a channel. As a rule, these models propose the transfer of some sort of energy, either known or hypothetical, but that is not a necessary characteristic. Correspondence models are those that do not assume such transmission of information or energy, at least not in the classical, Newtonian sense.

Examples of a transmission model include the *ELF models*, which propose that psi information is carried from source to receiver by extra-low frequency electromagnetic waves (e.g., Persinger, 1979). Other theorists have proposed that the information is carried by subatomic particles with desirable properties, such as *neutrinos* and *tachyons* (e.g., Dobbs, 1967; Ruderfer, 1980). The hypothesized tachyons, for example, move

¹ Jung's apparent understanding of magical causality as being causal in a strong sense might be incorrect. In a dictionary of occult terms, Bletzer (1986, p. 366) lists as her primary definition of "magic causality": "the end result of two events happening together with a very significant meaning to the person and yet neither event is the cause of, or related to, the happening."

² Mansfield (1996, p. 17) also writes rather disparagingly of magic, referring to it as an "unwelcome guest". Ironically, in his book (Mansfield, 1995) he speculates that political considerations may have led Jung to equate psychic phenomena with synchronicities.

faster than the speed of light, which is helpful in explaining precognition. Other theorists have postulated even more novel forms of energy, such as "bioenergy" (Moss, 1974) and the Chinese Qi (Zha & McConnell, 1991), that are seen to be especially relevant to paranormal healing.

Examples of correspondence models include Stanford's (1978) *Conformance Behavior* (CB) *Model*, which interprets micro-PK, for example, as the "conformance" of a random event generator (REG) to the needs, wishes, or "dispositions" of the subject. In order to explain ESP, the brain is considered to be an REG, as the random firing of neurons in the brain bears a superficial resemblance to an REG's production of noise. Thus, in ESP, it is the brain that conforms to the subject's disposition.

Another class of correspondence models are those that propose a collective or group mind (e.g., James, 1909/1960; Price, 1940). The main idea of these models is that at an unconscious level we are all in effect one mind, so that interacting with the minds (and the knowledge) of others is really no different from interacting with our own minds. What prevents us from doing so in practice is that our brains filter out information from others, perhaps to prevent our own minds from being flooded with data and to maintain our personal identities.

The third class of theories that I place in the correspondence category are the *observational theories* (OTs), which are based on quantum mechanics QM (Millar, 1978). These theories take off from the notion that it is our consciousness, not the physical process of measurement, that collapses the state vector. It is proposed that consciousness can bias the collapse so that the selected state corresponds to someone's intention or desire. In parapsychology, this process occurs retroactively at the time someone sees feedback of the psi test result.

Other physics-based correspondence models propose that psi functions in higher dimensions of space/time than the four we are used to (e.g., Rauscher, 1983). As a useful metaphor, imagine a world in which the populace only experiences two spatial dimensions — length and width, but not height. If someone in tune with the third dimension were to drop an object from the sky onto the flat plane, it would appear to the observer that the object had suddenly come out of nowhere — what parapsychologists call an *apport*, a paranormal event.

Synchronicity and Psi

It should be obvious that the transmission models are very "non-Jungian", so if we are to look for good comparisons to synchronicity theory we must look to the correspondence models. At first glance, the collective or group mind theories might appear to be a good fit because of their apparent similarity to Jung's collective unconscious, which provides the milieu for his archetypes. However, Jung's collective unconscious is not a group mind in the sense used by parapsychologists. It is rather a group of individual minds that have the same contents derived from our common ancestry. Only if one interprets the collective unconscious in this way does Jung's equating it to instincts or instinctual patterns make any sense. On the other hand, the group mind of the parapsychologists is essentially *one* mind. Also, and perhaps more importantly, the parapsychologists' group mind contains all our mental impressions, including those that Jung would assign to his individual unconscious.

A better fit to synchronicity theory are those correspondence models based on modern physics. Both the OTs and synchronicity theory use state vector collapse by an observer as at least a good analogy to what happens in anomalous correspondences. Although Jung did not carry the analogy as far as did the authors of the OTs (for example, the assumptions underlying retroactive PK), the basic mechanisms of the two classes of theory appear to be identical as far as they go. Likewise, the multidimensional space/time theories of the parapsychologists seem to be making the same point as Jung when he talked out about the relativity of space and time, but once again the parapsychologists have developed the idea more fully than did Jung.

In my view, the closest fit to Jung's theory of synchronicity is Stanford's CB model. Without doing too much injustice to Jung's thought, I think one could describe Jungian synchronicities as the brain of a person coming into conformance with an external event in order to fulfill the person's needs and disposition. Of

course, Jung's theory makes additional stipulations that go beyond the CB model or any of the other parapsychological theories. However, Stanford (1978) considers conformance to be a causal process.

TESTING SYNCHRONICITY

Testing Jung's synchronicity is not a simple undertaking. Mansfield (2002) states that "synchronicity's lack of an adequate theoretical structure; its uncontrollability; and its reliance on subjectivity, feelings, and scientifically suspect terms such as meaning make it exceedingly difficult, if not impossible, to test scientifically" (p. 178) Although these are indeed complications, they are no more severe than those routinely faced by experimental personality and clinical psychologists. Any general, nomothetic principles one can glean from Jung's writings can serve as hypotheses to be tested by conventional scientific methods.

Tests of the physical aspects of Jung's theory of synchronicity are isomorphic with tests of those parapsychological models such as the OTs that assume an acausal (in the Newtonian sense) correspondence between psychological and physical events. In a broader vein, Pallikari, Boller, and Bösch (2000) argue that cases in which data from micro-PK experiments exhibit effects that seem to reflect a rearrangement of targets within a sequence rather than a change in the relative frequency of the targets require for their explanation a concept akin to Jungian synchronicity. Pellikari et al. (2000) report data indicative of such patterning (excessive runs of the same target), and data conforming to decision augmentation theory (May, Spottiswoode, Utts, & James, 1995) would also seem to meet this condition. Whether such data can be accounted for by force-like causality models is a subject of debate (Dobyns & Nelson, 1998; May Utts, & Spottiswoode, 1995).

To my mind, the most promising and exciting possibilities for testing Jung's synchronicity theory come from its psychological aspect. It is clear from Jung's writings that archetypes can be activated by environmental stimuli (e.g., Jung, 1960/1975, p. 541), which means that in principle they can be activated in a controlled laboratory setting. In fact, social psychologists do this sort of thing all the time when they instill attitudes, beliefs, or emotions in their subjects in order to test their effects on behavior. (Of course, such manipulations sometimes raise ethical issues about the treatment of subjects, and these must always be weighed in the balance.) Jung also states that "synchronistic phenomena can be evoked by putting subjects in an unconscious (trance) state" (Jung, 1947/1969, p. 231). There is evidence that inducing a mild altered state of consciousness in subjects facilitates ESP (Honorton, 1977).

As a first step, it would be necessary to cull from Jung's writings, or those of his followers, a list of the archetypes. It also would be necessary to identify what specific kinds of environmental stimuli are capable of activating each archetype. The dependent variable could be any psi task that could also be synchronistic. The experimental design would specify two conditions or groups: one in which an archetype is activated right before the psi task, and one in which it is not (but is comparable in other respects). The hypothesis would be that the group which has been given the activation treatment would manifest significantly better psi scores than the other group. Of course, Jung would surely insist that the activation would not work every time, but it would not have to. Only a statistical effect is required.

There are other hints from Jung's writings that could be of value in helping parapsychologists improve the results they get in the laboratory. ESP targets might be selected or created that are relevant to particular archetypal themes, on the theory that subjects might be especially drawn to such targets, particularly if they relate to a particular subject's needs regarding individuation. Although the standard ESP cards are relevant to archetypes (as noted previously), more powerful examples could surely be devised. In discussing Rhine's card guessing experiments, Jung wrote that "the experimental set-up is influenced by the expectation of a *miracle* (Jung, 1960/1975, p. 537; italics in original). Although I am not sure that was quite the case, Rhine did place strong emphasis on motivating the subject to take the test (Rhine & Pratt, 1957). Be that as it may, I am not aware of any modern psi researchers who stress the "miraculous" nature of psi to their subjects. Jung's theory suggests that it might help our results to do so, by creating a sense of the "numinous" that would contribute to activating an archetype. It's certainly worth a try. These examples of how Jung's ideas about synchronicity might be of concrete benefit to parapsychology is a good note on which to end on. Parapsychologists and Jungians have for years been addressing similar, even if not identical, phenomena, with little in the way of mutual interaction. Perhaps if our two groups were a little better "synchronized", both would benefit.

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