

Causality and Synchronicity: Steps Toward Clarification

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ABSTRACT: Jung's concept of meaningful but acausal events, synchronistic events, has intrigued and confused scientists for decades. For increased clarity, this paper distinguishes several types of causal events from synchronistic ones. *Physical causality* postulates a physical mechanism to account for meaningful correlations between events, *psychological causality* a psychological mechanism. *Presumed physical causality* and *presumed psychological causality* are categories of faith that puzzling correlations will eventually be explained by straightforward extensions of current knowledge. *State-specific causality* recognizes the limited and semi-arbitrary qualities of our ordinary state of consciousness, as noted in the author's systems approach to consciousness, and the possibility that different cognitive styles in altered states can make puzzling correlations comprehensible and causal while in the altered state. *Paranormal causality* results when psi abilities (telepathy, clairvoyance, precognition, or psychokinesis) cause a correlation between events, although the mechanics of these processes are currently unknown. *Being-specific synchronistic causality* represents genuinely causal relationships that we are forever unable to satisfactorily grasp because of the inherent limits of human nature. *Absolute synchronicity* is genuine, meaningful relationship between events that is actually-acausal: the category is definable, but may not be empirically useful.

INTRODUCTION

For many years my involvement in parapsychological research has brought me to intermittent confrontations with the concept of synchronicity, "an acausal connecting principle," primarily as formulated by Jung (1973). I have usually come away from these encounters feeling confused! I now think, in retrospect, that the confusion arose because several different types of phenomena, some of which may very well be causal, have so frequently been indiscriminately lumped together under the term "synchronicity" that the concept itself has become inherently confusing. Some of Jung's own examples of synchronicity, for example, strike me as

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more likely illustrating what I shall later call "paranormal causal" types of events rather than *acausal* events. This paper is an attempt to conceptualize several types of causal and possibly synchronistic phenomena in the hope that greater conceptual clarity might make us able to deal more effectively with these various kinds of events.

What we ordinarily mean by "causality" would be illustrated by something like the following. I hold a rock in my clenched hand; at a given moment I open my hand, and the rock falls to the ground. We say that opening my hand, event A, is the immediate *cause* of the rock's falling to the ground, event B. We infer causality from the temporal and spatial proximity of events A and B. In this particular case, our belief in causality would be even stronger because we believe we understand the causal mechanism, M: the constant gravitational attraction on the rock which is free to operate when event A, the opening of my hand, occurs.

What we usually fail to realize in thinking about causality from the experience of ordinary events like this is that causality is actually a *psychological* reality, not a "physical" or "external" reality that we simply observe or discover; that is, we commonly project a psychological operation onto the external world and forget that it is a psychological operation. A look at what we currently understand about the developmental history that leads to ideas about relationship and causality will make this clear.

Let us conventionally assume the independent existence of an outside physical world of matter, energy, space, and time—a physical world that exists and has its own lawful happenings independent of our perception of it. Let us further assume that our consciousness is intimately linked with the functioning of our brain, nervous system, and body (I shall refer to this trinity as the brain for convenience in the rest of this paper). I emphasize "intimately linked with," rather than going even further (although it is conventionally done) and assuming that consciousness is *identical* with the functioning of the brain. A consequence of these two assumptions is that consciousness has no *direct* contact with the external physical world. Consciousness only has "contact" with neural impulses. Some of these neural impulses are shaped by physical processes in our sense organs, which processes are in turn shaped by impinging energies from the physical world, so we mistakenly believe we have direct contact with the physical world.

THE DEVELOPMENT OF PERCEPTION, COGNITION, AND THE IDEA OF CAUSALITY

Figure 1 diagrams the process by which we perceive the sequences of events in the external physical world and arrive at ideas

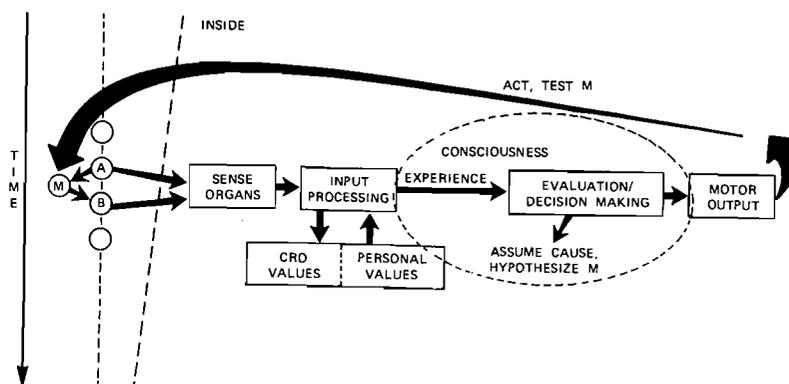


Fig. 1. Psychological construction of causality.

about causality. Physical energies from events stimulate our sense organs, where they are changed into neural impulses. These neural impulses in turn undergo a great deal of modification through a variety of processes I have lumped together in the figure under the heading Input Processing.² Input processing is almost wholly automatized and operates virtually instantaneously in terms of human time-perception. It is non-conscious. At birth and before the enculturation processes have begun to specifically program it, Input Processing is presumably much less extensive than in the adult, and the main constraints on it and the "inherent values" in it are those dictated by our biology; that is, the physiology of the sense organs makes them sensitive to certain kinds of physical events and not to others. Similarly, we now know that there are some *a priori* values or biases or selectivities built into the nervous system. The visual system is inherently sensitive to things like lines, angles, motion, color, etc., and, at a more complex level, comes with built-in values that make the infant, for example, prefer to look at human faces more than other kinds of visually stimulating objects.

Given the existence of biologically active needs/values in the infant, such as hunger, avoidance of pain, continuation of pleasurable sensation, and homeostatic needs in general, these processed neural transforms are evaluated and some kind of decision made about them. For the very young infant, the evaluations and decision may be very simple, such as to keep on sucking the nipple because the sensation of hunger is still present: the built-in value for the infant is to take in nourishment in order to eliminate hunger

² I have discussed these subsystems of consciousness more extensively in *States of Consciousness* (Tart, 1975).

sensations. The decision is expressed through the Motor Output subsystems, our musculature, and the external physical environment is interacted with in certain ways. In Figure 1, I have drawn a dotted circle to indicate the general locus of consciousness: it includes the experiential side of the transformed neural impulses coming out of Input Processing, Evaluation and Decision Making processes, and at least some of the Motor Output processes. We are generally disinclined to attribute such consciousness to young infants, but consciousness will become increasingly important as they develop and grow older.

I have also shown in Figure 1 that Input Processing affects and is affected by two processes that I have labeled CRO (Consensus Reality Orientation) values and personal values. These are interlocking processes that are not important in the very young infant, but become increasingly important and largely predominant as we move into childhood and adulthood. The Consensus Reality Orientation is the set of implicit perceptual learnings that shapes our perceptions so that we perceive things as people in our culture do, and achieve the state of "normal" consciousness—or what might be better called "consensus consciousness." Thus, say, someone holds a white pencil up in front of us and we immediately perceive it as a pencil. This is the result of unconscious and virtually instantaneous input processing in accordance with the CRO. Our personal values are the more idiosyncratic values we have developed in the course of enculturation, such as a preference for looking at old coins, noticing ads for gourmet restaurants, etc. The potency of these personal values on input processing varies with our varying need states.

Consider the infant's experiential world. We generally assume there is a continual changing flux of experience, what William James (1890) postulated to be a "blooming, buzzing confusion." It is confused because we assume there is no ordering of it along "sensible" lines; i.e., there is a continually changing territory with no map to recognize where we are in the territory at the time. This, of course, is a projection of adult beliefs about the infant mind, and we can never be certain of it. There may indeed be some partial, innate maps that are biologically given, such as the sight of a human face being a desirable experience, a kind of benchmark in the flux of experience; but it seems reasonable to assume that the infant's experience is largely chaotic and unorganized. The infant's cognitive task is to produce order among the chaotic flux of events, because order is more conducive to interacting with events in a way that insures maximal satisfaction of needs. To use our map and territory analogy, infants need to build up internal maps of the territories of experience they wander through in order to recognize

where they are in the territory of experience, and so be able to make meaningful choices when moving to more desirable parts of that territory. The territory of experience includes both purely internal, psychological experiences and those which arise from neural transforms of external physical stimuli reaching the sense organs. We shall concentrate on the latter, so we would thus say that the infant's cognitive task is to build up a good internal map of the external world in order to operate effectively (in terms of needs and values) in interactions with the external physical world.

Two fundamental mental categories or operations must be developed in order to build up a good internal map of the external territory. The first operation is the experiential recognition or mapping of what we might call *proximity/order*. Proximity/order may deal with either spatial or temporal relationships. It is basically a matter of noticing that two or more things go together. As a simple example, as I sit in my study I notice that there is a pair of headphones sitting beside a table lamp; they are in spatial proximity to each other. Or I look out my front window and I notice that a green Ford goes by and a little while later a red Buick drives by. Here we have a temporal order. The infant must develop the concept of proximity/order. Probably spatial proximity/order is developed first, for in order to arrive at temporal proximity, infants must have made the major developmental leap (usually occurring around a year after birth) of developing object constancy, developing an internal mental representation of an object that they hold onto after the object has been removed from sensory view.

Now proximity/order is not equivalent to causality, but it clearly is a basis for it. I would not argue that the headphones are where they are *because* the table lamp is where it is, or that the red Buick appeared *because* the green Ford had gone past. Simple spatial or temporal proximity/order is not enough to establish causality for the adult, although Piaget (1928) observes that there is a developmental period where it seems to work this way for the infant, a period he calls "magical thinking." In this brief period, if some pleasurable event unexpectedly happens to an infant, such as the mother walking in and playing with him for a minute and then leaving, the infant can often be observed to look disappointed when the mother leaves. He may then repeat the act he was doing just before the mother came in, and then look up expectantly, as if he were operating on an assumption that since A preceded B, simply repeating A ought to make B happen. (I think a good deal of this kind of magical thinking also goes on in adulthood, but we don't like to own up to it.)

The second fundamental mental operation underlying the concept of causality is an assumption that regularities in some ob-

served proximity/order are somehow inherent in the nature of things; are the result of reliable interactions among things rather than just a fortuitous ordering. Young children must strive for an adequate mapping of this kind of relationship, of causality, because it is knowing the real causal factors in their experienced world that gives them an opportunity to take effective action. The internal map that is developed, then, must not only note the spatial and temporal proximity ordering of things, but must also note the effective causal relationships among them.

In typical practice, we say that "A causes B" if whenever A appears, B follows—that is, if in 100 percent of our observations we note that B follows the appearance of A. We might call this the *invariable contingency criterion* for postulating causality. Being curious, however, we are usually not content with establishing causality only on the basis of invariable contingency; we want to know the underlying *mechanism* that results in A causing B. When we can specify mechanism we are mentally much more comfortable (even if the postulated mechanism is a fantasy on our part). A third situation in which we feel much more sure that we understand the real causal relationship is one in which we can deliberately bring about result B by producing cause A.

Thinking about relationships developmentally, we can see that when infants and young children are presented with external physical situations where events cluster together with strong or total regularity, they are provided with material for a concept of causality. They are also provided with feedback on the results of numerous attempts to deliberately manipulate the world—to deliberately test, as it were, an internal hypothesis, an internal map feature stating that if they carry out action A, B is going to result from it. "Cause," in this sense, is a very anthropomorphic concept; a direct feeling of the effective results of the application of personal power. As children grow older, however, specifying mechanism becomes important in their concepts of causes, especially since they now have had experience with a wide variety of proximity orderings that do not repeat themselves in any regular pattern, making it clear to them that causality must be more than simple proximity ordering.

We can now see the sense of my original argument that relationship and causality are psychological realities. In the conventional view, our only *direct* experience is of neural impulses. The experiential components of these neural impulses become our mental maps, maps which try to order and account for the results of operations on the flux of experiences that we have come to attribute to the external physical world. Our only validation of the effectiveness of the map is in terms of repeated *experiences* which

we presume are caused by events in the external physical world. Thus what we validate is one kind of experience (that we call our mental maps or ideas) with other kinds of experiences (that we call current sensory experiences and *attribute* to the external world). "Validation" is consistency between different classifications of mental experience. The common belief that we *discover* the lawful, causal sequences in the external physical world is only a (useful working) hypothesis. Insofar as our only direct experiences are of neural impulses, we can never directly validate or invalidate this hypothesis. Relationship and causality, then, ultimately refer to experiential consistencies, and it is in some ways a logical fallacy to implicitly and automatically assume that they really deal with the postulated external physical world.

Young children must learn to deal with two kinds of experiential matrices for handling proximity/order observations. The first kind are those in which they feel they are active, leading them to believe that they are causing something to happen. The second are those in which they are not particularly active, or those in which they eventually realize that their activity seems to have no relationship to what is going on, even though there are regularities in the observed proximity/orderings that meet the idea of causality. The adult reflection of this is a statement such as "I did it!" versus the abstract recognition that "A caused B." Note too that the implicit "other side of the coin" of the idea of causation, whether personal or abstract, is the idea of *inertia*: the idea that if A doesn't appear or someone doesn't do something, nothing will happen—that is, that unitary, self-contained objects don't do anything unless acted on by some kind of causal force. A rock lying on the ground stays where it is until someone or something moves it. In terms of ordinary human time-scales, the rock is an isolated, solid, whole object. Apparent exceptions to this notion, as in the case of an object that seems to be isolated undergoing change, lead us to the idea that the object has component parts which are not immediately visible, but if we understood the actions of these component parts we would have the mechanism for the observed change. Thus the leaves and other organic matter in my compost pile keep shrinking in volume, although I cannot see anything taking away part of them or pushing them together into a smaller mass. But the biologist would tell me it is because the leaves and organic matter are not atomistic units but composite structures, and if I could see the chemical and bacterial action on a smaller scale level, then the cause of the shrinkage in volume would be quite understandable. We might say that obvious causality, then, deals with sensorily detectable objects on a macroscopic level (the bat hits the ball and so the ball flies off), while more sophisticated causality deals with

causal aspects that are not immediately apparent to the unaided senses.

With the psychological nature of relationship and causality now in mind, let us consider eight types of discriminable causality and two types of pseudo-causality.

TYPES OF DISCRIMINABLE CAUSALITY

Physical Causality

Here we observe a relationship, a proximity/ordering of two or more external physical events and, in terms of our current physical science understanding, we can retrospectively explain and in principle predict future relationships between these kinds of events. At worst the predictability is only statistical; at best it is extremely accurate and based on an understanding (a mental map that orders experience) of the mechanism, M. Thus we say that A causes B because of M.

Presumed Physical Causality

Here we again observe a relationship between two or more physical events, and although we cannot at the present time give a good explanation or make a good prediction in terms of the developed physical sciences, we presume that in principle one could be made once we developed the requisite scientific disciplines. This may involve a relatively small act of faith that seems a reasonable extrapolation from current knowledge (we will be able to predict the weather better once we understand sunspot activity more precisely), or it may be a global act of faith, a statement that everything will eventually be explained in terms of the kind of physical explanations we now have no matter how much these observations seem to contradict the current types of physical explanations. This kind of global faith is widespread among the scientific community for social reasons. Carried to an extreme of "There's *got* to be a rational scientific explanation for what I just saw no matter how miraculous it seems," it can be a psychological pathology blinding us to proper observation of data and creative thinking.

Psychological Causality

Here we observe a relationship between two or more people, between a person and a physical object, or between totally internal experiences, and explain the observed proximity/ordering by psy-

chological factors within one or more of the people involved. As an example, someone notes that Bill, at a party, prefers the company of older, very proper women. Bill's psychotherapist remarks that this is because Bill has not worked through his oedipal complex with his mother and so is unconsciously seeking his mother in the women around him. Psychological causality relationships may also be looked for in terms of purely internal, mental events (I'm thinking of this because of such and such a psychological process that went on earlier), but we will stay with our focus on external physical events.

Presumed Psychological Causality

Analogous to presumed physical causality, we observe a psychologically meaningful relationship between events that are interactions among people, between a person and an object, or between two mental events; and although we cannot provide a causal explanation in terms of the current development of the psychological sciences, we presume that the continued development of these sciences will eventually provide an explanation (I don't know why I thought of that crazy thing, but some day they'll understand how the mind works). As with presumed physical causality, this may involve rather small extrapolations from the current state of the psychological sciences or be a global act of faith that could become a cognitive pathology by distorting one's perception of events that might be disturbing and/or inhibiting creative thinking about puzzling events.

It is well to note that, insofar as we adopt the widely held and conventional assumption that mental processes are identical with brain events, both types of psychological causality become rather specialized and derivative cases of physical causality and presumed physical causality; that is, a need to resort to a psychological explanation in various instances only reflects our woeful (but presumably curable) ignorance in knowing how to reduce mental events to physiological events. According to this view, physical explanations seem more "fundamental" and thus are the preferred types of explanations that we should always strive for. Although I will not develop my line of argument here, I have strongly suggested elsewhere (Tart, 1975) that psychological events involve a *basic awareness* that is of a different order than physical events, and that psychological explanations may thus be ultimately different from and certainly just as valid as physical explanations. This view has been developed further in Tart (1979).

Note that the four kinds of causality discussed so far, especially the physical kinds, implicitly *assume* the capacity of the human

mind to “discover” the causal laws of the physical world, or, more properly speaking, assume the capacity of the human mind to make mental representations of the (hypothesized) physical world that are extremely good representations of further experiences presumably coming from that physical world. Presumed physical causality, pushed to its limits that everything will be explained this way, implicitly makes the grandiose assumption that the human mind will be able to make representations of *all* of physical reality. Further, since practically all our science (and all of it, “officially”) has been developed in an ordinary state of consciousness, the implicit assumption is that in our ordinary state of consciousness we can make these increasingly better and perhaps ultimately perfect maps of the presumed independently existing physical realm.

State-Specific Causality

This kind of causality could be observed for both physical causality and psychological causality. A person observes some events in his ordinary state of consciousness which do not reliably make any “sense”: he can neither observe an obvious order, predict the future, nor postulate a plausible mechanism for the observed events. But, after going into one or another altered state of consciousness (ASC), he perceives a pattern in those same events. The concept of state-specific causality recognizes that the perceptions and logics of our ordinary consciousness are not absolute and given, or the only kind of logic, but semi-arbitrary. An ASC constitutes a temporary reorganization of the mind in a radical way that brings both new styles of perception (changes in input processing) and/or new kinds of logics. The perceptions and logics are only understandable in the altered state. While there is memory from one episode of the altered state to the next, the memory of the altered state in the ordinary state is poor, so the knowledge of the ASC is state-specific. One might thus have state-specific causality; i.e., in the altered state reliable proximity/orderings are observed, and/or a plausible causal mechanism can be thought of, and/or predictability is attained. The predictions, insofar as they deal with publicly observable events in the physical realm, may allow us to validate that this state-specific understanding of causality is correct (he is right in his predictions even if I can’t make any sense of what he says about how he arrived at the predictions). The predictions may also deal with internal psychological events, where the observational validation of prediction can only be done in the ASC itself.

To illustrate, some of the more abstract versions of modern mathematics are like state-specific sciences. They require a certain set of mind, arrived at after years of training, in order to manipu-

late mathematical equations properly and to arrive at certain kinds of conclusions. The outsider, the non-mathematician, may not be able to follow the mathematical operations at all, they don't make sense to him, but the end results, such as a better way to design an airplane wing for less air friction, turn out to be validated in the physical world.

We have not developed state-specific sciences yet, although I proposed the idea some years ago (Tart, 1972), but the idea of state-specific causality can greatly expand our possibilities of finding causal relationships: things that seem paradoxical and don't make sense in our ordinary state of consciousness may yield to causal analysis by suitably trained practitioners who can enter the requisite ASC. I suspect, for example, that some of the paradoxes about the paranormal will be much more readily understandable to the state-specific sciences we might develop in the future.

Paranormal Causality

Here we observe reliable orderings (Smith tries to send telepathic messages to Jones, and Jones picks them up a significant percentage of the time), but, by the currently understood laws of the physical world, these orderings could not have come about; the causal laws we understand of the physical realm apparently prohibit what we have observed, yet we have observed it. Nevertheless, because B has presumably been initiated by A (even though, at this early stage of the game, we have only a low level of statistical reliability), it is easy to believe that a causal mechanism is involved. We then assume, as in the case of presumed physical causality, that the development of the science of parapsychology will eventually lead us to more reliable control and prediction over paranormal phenomena, and that we will begin to postulate mechanisms for the phenomena that will in turn help increase their reliability and control.

As an example, consider the kind of classic crisis case, where a mother who has not seen her son for many years wakes up distraught from a nightmare in which he was run down and killed by a car, and shortly thereafter receives a phone call indicating that he had indeed been killed by a car at about that time. Barring sensory cues and reasonable extrapolation as hypotheses, as we can in many actual cases, it seems reasonable to assume that either some unconscious part of the mother's mind was continuously sensitive via psi to the welfare of her son and/or the highly traumatic event of dying happening to the son triggered off some sort of telepathic sending on his part; and so the son's death caused the mother's dream. We may or may not be able to understand the mechanisms

of the paranormal in our ordinary state of consciousness, or we may have to develop a state-specific science and get into state-specific causality in order to understand them, but in principle many paranormal events fit well within a causal way of conceptualizing reality. Thus paranormal events per se should not be indiscriminately used to illustrate the concept of synchronicity.

Being-Specific Synchronistic Causality

Here we begin to recognize the present and ultimate limits of our abilities to comprehend reality, our psychological limits, the limits of our being (including whatever technological aids our minds produce). We may sometimes sense meaningful relationships among events here, and on statistical or similar grounds feel sure that these relationships are genuine, but we will never be able to predict the occurrence of such events with any degree of accuracy, manipulate them reliably, or postulate plausible causal mechanisms. Because we can get a partial, albeit inadequate, grasp of some kind of meaningful action at work, however, we postulate that there are causal factors involved, but these factors are either so complex and/or of such a different order of reality than the human mind (and its instrumental aids) that they will forever remain beyond the limits of our comprehension.

Postulating being-specific synchronistic causality thus amounts to an anthropomorphic projection of our belief that everything is caused, even though we recognize that *we* will never be able to prove it. We will get fascinating hints of relationships: this is what makes us consider the idea of being-specific synchronistic causality in the first place—"meaningful" coincidences when there seems to be no physical or psychological cause—but we will never be able to prove or disprove these relationships for certain.

As an exercise, we may postulate that there could be some different kind of intelligent being than us which could causally comprehend events which to us must always remain being-specific synchronistic.³ We can certainly think of analogies. My cat has a very intelligent understanding of certain facets of physical reality, but he may be frightened by the sonic boom of a jet plane that was designed by the application of calculus to physical reality, and he will never be able to understand such a causal chain as (calculus→jet plane→boom→fright); it is being-specific synchronistic

³ I shall use the term "being-specific synchronistic" or variants of it when my emphasis is on our inability to causally comprehend events, and the term "being-specific synchronistic causality" when my emphasis is on our postulated reality of causality even if we can't comprehend it.

with respect to his cat mentality, albeit causal to us. Similarly, we might postulate the existence of entities which could causally comprehend what to us are being-specific synchronistic events. These might not necessarily be “higher” entities in the sense of superior to us in all ways, but simply beings with a different *kind* of intelligence. Some things that to them might be being-specific synchronistic might be clearly causal to us.

Figure 2 sketches the “mechanism” of being-specific synchronistic causality. Events A and B show a relationship, and so our attention is attracted to them. We observe them, but, in accordance with physical causality and presumed physical causality, there was no physical channel available to connect A and B. What happened was that event S—on a different, synchronistic level—influenced and/or was influenced by either or both events A and B on our level, thus “indirectly” (to us) linking them in a way that created a relationship and drew our attention.

Let us consider a possible example of this mechanism—an example that also illustrates the complexities in distinguishing the different types of causality or synchronicity in the case of specific events. While I was preparing to write the four paragraphs above, my telephone rang. It was a colleague from the East Coast calling. I had not heard from him in almost two months and did not expect him to phone me in the foreseeable future. I was quite surprised and intrigued by his calling just when he did, as only a couple of hours earlier I had dictated a letter to him concerning various matters of mutual interest. Thus the “coincidence” involved in his phoning me so soon after I had dictated the letter to him and while I was writing a paper on synchronicity (more precisely, just as I was starting the above section on synchronicity proper and wondering what I could use as an illustrative example) seems quite striking! My colleague’s conscious reason for calling me had to do with the publication of a chapter I had contributed to a book he was editing, and this certainly had no connection with my physical

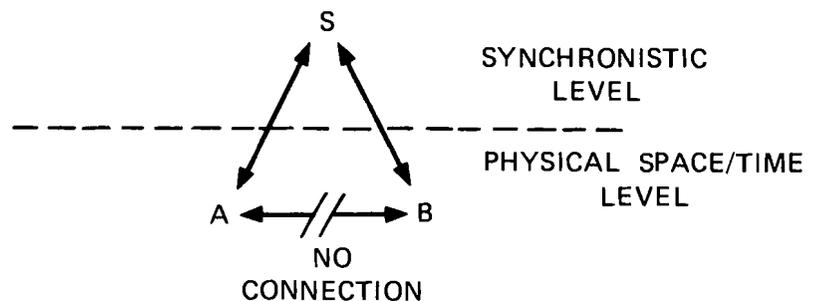


Fig. 2. Functioning of being-specific synchronistic causality.

activities or my thoughts at the moment; but it is the fact that I had dictated the letter to him, was concerned with synchronicity, and needed an illustrative example of some real occurrence that made the particular proximity/ordering of events in it seem synchronistic.

The being-specific synchronistic causality explanation of his calling me would require that some event S on the synchronistic level affected both of us: event S affected my colleague's activities so that he phoned me at the particular time he did, while my own activities were affected by event S so that I not only happened to be thinking about synchronicity, but also happened to write to him earlier that day, though I could just as easily have written that letter at any other time during the several months preceding my actual writing. Insofar as this event is synchronistic, we will never really understand the nature of the event S on the synchronistic level that brought it about, nor will we voluntarily be able to repeat this kind of pattern—i.e., I will not be able to cause people I have written to earlier in the day to telephone me in the future just by deciding that I need an example of synchronicity. By definition, events brought about by being-specific synchronicity will not show a consistent, controllable pattern.

This particular example is complicated because taken alone, I could argue just as strongly for a paranormal causality explanation. Perhaps it was not especially meaningful that I thought about my colleague just when I did and decided to write to him. But this, combined with my desire to have some kind of example of synchronicity, may have activated some sort of "telepathic-agent" process on my part, outside of my awareness, that led to his making the phone call precisely when he did, rather than at any other time. However, note carefully that, in contradistinction to being-specific synchronistic events, paranormal causally produced events are susceptible to causal explanation *in principle*, even if the level of explanation we now have (my "desires" activated an unconscious "telepathic-agent" process) is crude and imprecise. It is conceivable that if, through more refined experiments, we learn more about the telepathic process, we may be able to produce events of this sort more or less at will.

I have defined being-specific synchronistic causality in an absolute way above as referring to meaningful, presumably causal events that are beyond our level of understanding. We should distinguish a variant of being-specific synchronistic causality, however, in which our future evolution might develop our intelligence in such a way that observations which were formerly being-specific synchronistic to us would seem intelligible, becoming reduced to well understood or presumed physical or psychological causality or paranormal causality. We should also note that an event which is

being-specific synchronistic in our ordinary state of consciousness might become intelligible in some ASC, so we could mistake a case of state-specific causality for being-specific synchronicity. This latter distinction can only be made in practice by attempting to develop state-specific causal explanations: events which do not yield to this approach after sustained effort are probably being-specific synchronistic.

Although any individual instances of meaningfully connected events without any physical connections among them could be instances of either paranormal causality or being-specific synchronistic causality, in the (very) long run we must distinguish the two. Some parapsychologists, for example, who have been discouraged by years of research that does not seem to lead to any reliable understanding or control of psi, are beginning to think of paranormal events as synchronistic. If future research trends continue in this direction, and even if we get fleeting glimpses of relationships here and there but cannot put them together meaningfully, this would indeed argue for the being-specific synchronicity of what we now call paranormal phenomena. What may very well happen, however, is that among the wide range of things now considered paranormal, some will start yielding to paranormal causal explanations while some might never yield and so constitute being-specific synchronistic phenomena.

Absolute Synchronicity

Here we have the concept of synchronicity that is probably the most difficult for our minds to deal with. We observe relationships between two or more events, but even though the events happen in a meaningful pattern, they are not *caused* at any level. It is not a matter of being-specific synchronistic causality, where we can comfortably believe that causality works at all levels, but our minds are too limited to understand it: here we have an absolute principle of meaningful patterns appearing, but no causal mechanism existing to bring them about. Perhaps this is what quantum physicists mean when they claim that the behavior of any and all individual particles is unpredictable, acausal, yet the statistical behavior of those particles, the patterns they form, is meaningful and regular. For being-specific synchronistic causality we, in effect, postulate that there *might* be a kind of intelligence which could understand causal mechanisms that are closed to us: here no such kind of intelligence can be postulated. Things “just happen” to be meaningful. I am not clear yet on whether we could distinguish in practice absolute synchronicity from being-specific synchronistic causality.

Let us round out this discussion by looking at two types of pseudo-causality.

PSEUDO-CAUSALITY

Projected Meaning

Here we deal with a psychological error. Two or more events are observed to come together and form a proximity/order that we believe is meaningful. We can trace back the independent causal chain of each of the separate events and understand how it got to the particular junction we saw as meaningful, and where it goes from there. The mistake we make is in believing that there is meaning *in* this junction. We should say it was probably just coincidence, and although we may *project* meaning into it if we so desire, we should not make the mistake of believing that our projections are a statement about what went on in the physical or psychological world.

To apply this to our example, we could argue that my colleague telephoned me because the day before he had been telephoned by a publisher about my chapter in the book he was editing, and he now needed to ask me some questions. This is a perfectly ordinary causal chain of events. Similarly, I had written my letter to him several hours earlier because of presumed psychological causality, and these causal chains just happened to cross at the particular time they did. The argument then goes that *because* I wanted an example of synchronicity, I merely *projected* the concept of synchronicity into these events, and that there is no reason to believe that it was contained in the events themselves. It was just "coincidence."

This is not to say that projecting meaning is necessarily bad: projection can lead to useful hypotheses. Quite aside from whether paranormal causality or some kind of synchronicity was "really" operating to account for the phone call, the interpretation I have placed (or projected?) on the events is useful for illustrating various concepts. Like any psychological process, however, if I project meaning too frequently I shall get a very inappropriate map of the world that will eventually lead me into trouble.

Projected Causality

Here we have two or more events occurring and we believe we perceive how they are causally related, but in actuality there is no causal or synchronistic relationship of any type existing between them. It is a fallacy that made us think of a causal relationship, or even a synchronistic one, when it was not there. If we could trace

back the causal chains on all the events, we would find that they did not actually cross anywhere. Going back to my earlier example of the headphones on the desk beside the table lamp, I might decide that the lamp caused me to put the headphones in that particular place because I wanted to have light to see them; actually, the reality might have been that I put the headphones on the first clear space I found on the desk, and that the table lamp had nothing to do with it. I am sketching in a mistaken connection on my mental map of that particular segment of reality. This kind of pseudo-causality is particularly prevalent in "explaining away" any occurrence which disturbs us. If it were subjected to the basic test of any causal explanation, that it must coincide with the observed facts and predict new ones, it would obviously fail, but in projected causality we do not usually test our explanations.

SYNCHRONISTIC CONFIRMATION?

One of the most interesting things about apparently synchronistic events is that they change apparently unrelated, meaningless events into importantly meaningful ones; they illuminate the humdrum aspects of life. I shall now describe an apparently synchronistic series of events accompanying an earlier presentation of these ideas which I interpret as a synchronistic "confirmation" of the usefulness of thinking about synchronicity in this way.

The text of the presentation was run off on a ditto machine on Thursday, January 29, 1976, and a dozen copies were ready for me to take back to my home in Berkeley that evening so I could distribute them at a meeting the next evening of a group of local California scientists interested in parapsychology. The meeting was the first in a planned series for these scientists, who were to meet at my home once a month to discuss their current research and interests. Those attending this first meeting, in addition to me, were John Palmer, Arthur Hastings, Russell Targ, Elizabeth Rauscher, John Jungerman, and Lila Gatlin.

A series of events happened in connection with our going to dinner before we began our formal meeting that were synchronistic in the way this term is usually used. These events were so apropos to my presentation on synchronicity and to the formal purpose of the meeting, Targ's description of the latest SRI research on remote viewing, that I shall interpret them as a synchronistic confirmation of the usefulness of presenting my paper. First, background information about some of the participants in the meeting will be necessary to show why the synchronistic events were so appropriate.

Although the meeting had not been called specifically to discuss out-of-body experiences (OBEs), several parapsychologists active in OB research were present. My first contribution (Tart, 1968) to OB research was a study on the physiological correlates of OBEs in a subject identified as Miss Z in the original report. This research attracted considerable attention among parapsychologists, and is generally considered to have stimulated further laboratory investigations in this area.

Palmer is one of the most active investigators of OBEs, having published several articles (Palmer and Lieberman, 1975; Palmer and Vassar, 1974) on the subject in the last few years. He was working with me on the analysis of a large case collection of OBEs at the time of the meetings, and we hoped to do physiological research with talented OB subjects in the future.

Hastings was an old friend of Miss Z, and had assisted me in carrying out the research with her more than a dozen years ago.

Targ also was acquainted with Miss Z at the time the original research with her was done, and he has had a long-term interest in OBEs. His remote viewing experiments with Harold Puthoff (Puthoff and Targ, 1976; Targ and Puthoff, 1977) represent a phenomenon that is similar to an aspect of some OBEs—the acquisition of information at a distance from the physical body. Although I think the OBE is a different phenomenon from remote viewing when we look at both closely, Targ and I have often discussed just what the similarities and differences are.

Rauscher, a physicist at the University of California, Berkeley, had done some pilot work on remote viewing, and she planned to carry out a more complete experiment later that year.

Before the meeting was to begin, we had to decide where to go for dinner. I named several restaurants within a five-minute drive from my home, and the group chose Shakey's Pizza Parlor on Solano Avenue in Berkeley. We drove there in two cars. Those who arrived in the first car picked seats at one of the long tables to hold a place for the group while the others ordered the pizza. I was among the latter, and while I was standing at the counter Hastings came up to me and announced that Miss Z was sitting at the opposite end of our group's long table!

After completing my research with Miss Z more than a decade ago, she moved to Southern California and I lost track of her; then I heard indirectly that she had emigrated to Israel. I eventually learned that she had returned to California, and I ran across her in San Francisco a couple of years before the date of our meeting. We had chatted for a while about whether she was still having OBEs (they were very rare with her now). The only other occasion that I had run into her since then was about a year and a half earlier,

when Hastings and I met her in the ticket line for a San Francisco show. She said she very rarely visited Berkeley.

It struck me as a remarkable "coincidence" that Miss Z should show up at the same table as a group of people comprising several of the most active researchers on OBEs. Hastings, Palmer, and I spoke with Miss Z only briefly, and she left not long after we arrived. The other members of our group were too engrossed in conversation at the time to be aware of what was happening.

Moreover, two other events that seemed to reinforce this synchronicity occurred while Miss Z was still at the other end of the table. Shakey's Pizza Parlor showed old movies and various selected shorts continuously. While we were talking about Miss Z being there, a short came on telling the story of *Mary Poppins*: Miss Z was the well known parapsychological subject who had apparently left her body to "float around" the ceiling. Now it was *Mary Poppins* floating around in the air with her umbrella and doing various other "magical" things. This was not only appropriate for the specific OB parallelism, but also for the paranormal theme of the meeting in general. Further, I had been in a small store selling miscellaneous used goods that afternoon and had noticed a woman looking at and handling a rather old umbrella. This struck me as odd at the time, as we had been having a drought, and umbrellas were not needed.

Following the *Mary Poppins* film after one intervening film was a cartoon version of *Alice in Wonderland*, called "Alice and the White Rabbit," showing a variety of "magical" changes happening in Alice's adventures: no flying, but a general underscoring of parapsychological events.

Further, the intervening film comprised something of a minor personal synchronicity for me, as it was a cartoon of "Brer Rabbit and the Tar Baby," a story that my daughter had read aloud to our family just the previous weekend while we were on a camping trip. It is very rare for my family to read this sort of story, aloud or to ourselves.

I chose to interpret these events as an example of either being-specific or synchronistic causality. Paranormal causality does not seem particularly plausible as there were so many events to arrange to give the final happening its full flavor. It seems rather cumbersome to imagine someone's unconscious mind using psi to make sure that some active OB researchers were at just that place, influencing Miss Z's activity to send her from San Francisco to Berkeley at just the right time, and affecting the showing of just those particular films. What this amounts to saying is that the pattern of events seems so meaningful that I cannot dismiss them as nothing but coincidence, or merely projected meaning or pro-

jected causality on my part; but neither do I feel comfortable trying to fit them into a paranormal causality framework.

I am inclined to think that this pattern of events was an instance of being-specific synchronistic causality because my own desire a week earlier for an example of synchronicity had only been partially met by my colleague's phone call from the East Coast. That was interesting, but not entirely convincing. While this very lack of "over-convincingness" was quite useful to me in illustrating the difficulties in distinguishing categories of synchronicity, some part of me still hoped for something better.

CONCLUSIONS

I have tried to distinguish a variety of forms of causality and synchronicity. I think it is important to make these distinctions conceptually, even if it is not clear how we can make all of them in practice. Not only should it improve the clarity of our communication about these matters; it might also protect us from a danger inherent in the concept of synchronicity. This danger is the temptation to mental laziness. If, in working with paranormal phenomena, I cannot get my experiments to replicate and cannot find any patterns in the results, then, as attached as I am to the idea of causality, it would be very tempting to say, "Well, it's synchronistic, it's forever beyond my understanding," and so (prematurely) give up trying to find a causal explanation. Sloppy use of the concept of synchronicity then becomes a way of being intellectually lazy and dodging our responsibilities.

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